

ASHWANI K. GUPTA

Distinguished University Professor, and Minta Martin Professor of Engineering
Professor, Dept. of Mechanical Engineering; Affiliate Professor, Dept. of Aerospace Eng.;
Professor, Inst. Physical Sci & Tech., Univ. of Maryland, College Park, MD 20742, USA
Tel: 301-405-5276 ; E-mail: akgupta@umd.edu ; Website: <https://enme.umd.edu/combustion/>
Wikipedia: https://en.wikipedia.org/wiki/Ashwani_Gupta

Listed in the top 2% (actual 0.05%) scientists in the world published by Stanford University, 2022.

Ashwani Gupta worked as a research engineer at Intl. Combustion Ltd. (1967-1971). He obtained his MSc in Combustion and High Temperature Gas Dynamics, Southampton University, in 1970. He obtained his PhD in Combustion from the University of Sheffield in 1973. He was awarded higher doctorate DSc from the University of Sheffield in 1986 and also from the University of Southampton in 2013. He was awarded Honorary Doctorates ((Honoris Causa) from the University of Wisconsin Milwaukee in 2014, King Mongkut University of Technology North Bangkok, Thailand, 2014, bestowed by the Princess of Thailand, & University of Derby, UK in 2015. He is a Fellow of the Royal Academy of Engineering (FREng), UK.

He received the AIAA Energy Systems Award in 1990, Propellants & Combustion Award in 1999, Air Breathing Propulsion award in 2014 and Pendray award in 2017. He received the ASME George Westinghouse Gold Medal in 1998, James Harry Potter Gold Medal award in 2003, James N. Landis Medal award in 2004, Worcester Reed Warner Medal in 2008, Holley Medal in 2010, ASME-AIM Percy Nicholls award in 2011, Melville Medal in 2013, Soichiro Honda Medal in 2018, and ASME Dixy Lee Ray award in 2021. He was awarded ASEE Ralph Coats Roe award in 2015; The Univ. of Maryland President Kirwan Research Award in 2003, and the College of Eng. Research Award in 2006. He received Best Paper awards from ASME in 1991, 1997 & 2003 and AIAA in 1987, 1989, 1992, 1994, 2006, 2010 & 2012.

He was appointed Distinguished University Professor at UMD in 2008 and Minta Martin Professor of Engineering in 2023. He is also Professor of Mechanical Engineering (1988+) and Director of Combustion Laboratory. His academic experiences include six years as Member of Research Staff in the Energy Laboratory and Department of Chemical Engineering, MIT, three years as Independent Research Worker in Chemical Engineering & Fuel Technology, Sheffield University. He served as a consultant to Nippon Furnace and many other companies in Japan.

His main research interests and contributions have been in the fields of Combustion, Swirl flows, High temperature air combustion, High intensity distributed combustion, Diagnostics, Fuel spray, Fuel reforming, Sensors, Micro-scale combustion, Wastes to energy, Air pollution, Under water propulsion, and Sulfur from acid gas. He has co-authored three books entitled Swirl Flows, and Flowfield Modeling and Diagnostics, and High Temperature Air Combustion: from energy conservation to pollution reduction. He has authored/co-authored over 300+ Journal papers, 550+ conference papers, 3 books and 18 edited books and 22+ book chapters.

He is the founding co-editor of the Energy Engineering and Environment Series published by CRC Publishers. He serves as Editor in Chief of Intl. J. Energy for a Clean Environment, Assoc. Editor J. Propulsion & Power, and J. Applied Energy. He served as Director of Propulsion and Energy Group at AIAA and the AIAA Board of Directors (2007-2013), Deputy Director of Energy group (2000-2007, and 2019+), Chairman of AIAA Terrestrial Energy Systems Tech. Comm. (1991-2000) and Chairman of the AIAA Propellants and Combustion Tech. Comm (1988-1990). He is cited in Who's Who in America, Engineering, Technology, and Aviation in the USA, and The Men of Achievement in the U.K. He has served on several national technical committees and chaired Intl. conferences & symposia by invitation. He has served as consultant to many organizations in the USA, Europe and Japan, including International Consultant to the Japanese government (NEDO, METI). He is Honorary Fellow of ASME & RAeS (UK); Fellow of AIAA, SAE, & AAAS, & Member of European Academy of Science & Arts (EASA).

Biographical Sketch

Name: Ashwani Kumar Gupta

Address: Department of Mechanical Engineering
University of Maryland, College Park, MD 20742

Telephone: 1-301-405-5276 (Office); FAX: 1-301-314-9477

Citizenship: USA and UK

Degrees: B.Sc., M.Sc. Ph.D., D.Sc.

Professional Affiliations: Fellowship, Royal Academy of Engineering (FREng), UK, 2023
American Institute of Mechanical Engineers (ASME)
(Honorary Fellow 2016+, Fellow 2000+, Member 1990+)
Royal Aeronautical Society (RAeS), UK (Honorary Fellow
(2020+, Fellow 2016+)
American Institute of Aeronautics and Astronautics (AIAA)
(Fellow 1992+, Member 1980-1991)
Society of Automotive Eng. (Fellow 2007+, Member 1992-2007)
American Assoc. for the Advancement of Science, AAAS,
(Fellow, 2016, Member 2012-16)
European Academy of Sciences & Arts (EASA), Member (2021)
Institute of Energy, UK (Fellow 1986-98, Member 1972-1986,
Chartered Engineer, C. Eng., 1974-98)
Combustion Institute (Member 1973 +)
Institute of Mechanical Engineers (Member 1971-74)
American Society of Engineering Education (Member 1993-96)

Citations: Who's Who in America
Who's Who in Engineering
Who's Who in Technology
Who's Who in American Education
Who's Who in Aviation
Men of Achievement, Intl. Biographical Center, Cambridge, UK
(23rd Ed.)
Int'l., Who's Who of Intellectuals, 11th Edition, U.K.
National Forensic Services Directory

Honors and Awards: Distinguished University Professor at UMD (2008+)
Minta Martin Professor of Engineering, 2023.
Honorary Doctorate degree, Univ. of Wisconsin, Milwaukee, 2014
Honorary Doctorate degree, King Mongkut Univ. of Technology,
North Bangkok, Bestowed by the Princess of Thailand, 2014
Honorary Doctorate degree, University of Derby, UK, 2015
D.Sc. from Southampton University, UK, 2013
D.Sc. from Sheffield University, England, 1986 for international
recognition, numerous publications of original work & substantial

contributions to learning in Engineering and Applied Science
 Energy Systems Award of AIAA, 1990
 George Westinghouse Gold Medal, ASME, 1998
 Propellants and Combustion Award, AIAA, 1999
 James Harry Potter Gold Medal, ASME, 2003
 University of Maryland President Kirwan Research Award, 2003
 James N. Landis Award, ASME, 2004
 University of Maryland College of Eng. Research Award, 2006
 Worcester Reed Medal, ASME, 2008
 Holley Medal, ASME, 2010
 Percy Nicholls Award, ASME, 2011
 Melville Medal, ASME, 2013
 Air Breathing Propulsion Award, AIAA, 2014
 ASEE Ralph Coates Roe award, 2015
 Pendray Aerospace Literature Award, AIAA, 2017
 Soichiro Honda Medal, ASME, 2018
 Dixy Lee Ray award, ASME, 2021
 AIAA Best Paper Awards (1987,1989,1992,1994,2006,2010,2012)
 ASME Best Paper Awards (1991, 1997 and 2003)
 Elected to Honorary Fellow of RAeS, 2020; Fellow 2016
 Elected to Honorary Fellow of ASME, 2016; Fellow, 2000
 Elected to Fellow Grade of AAAS, 2016
 Elected to Fellow Grade of AIAA, 1992
 Elected to Fellow Grade of SAE, 2007
 Elected to Fellow Grade of the Institute of Energy, UK, 1986
 Elected Member of European Academy of Science & Arts, 2021

Current Appointment: Distinguished University Professor (2008 to Present)
 Minta Martin Professor of Engineering (2023+)
 Professor of Mechanical Engineering (1988 to Present)
 Affiliated Professor, Aerospace Engineering, (2021+)
 Associate Professor (1983-1987)

Prior Appointments: Research Staff Member (research in Combustion, Diagnostics,
 Swirl Flows, Alternative Fuels and Pollution). The Energy
 Laboratory and Dept. of Chemical Engineering, M.I.T.,
 Cambridge, MA 02139 (1977-1982)

Independent Research Worker and Research Associate
 Dept. of Chemical Engineering and Fuel Technology
 Sheffield University, England (1973-1976)

Consultant to Nippon Furnace Co., Japan (April 1976-July 1976)

Research Engineer
 International Combustion Ltd.,
 Derby, England (1967-1971)

Education: Ph.D. Chemical Engineering and Fuel Technology, Noise

Emission and Reduction from Swirl Combustors,
University of Sheffield, England, 1973.

D.Sc. (Higher Doctorate) Chemical Engineering and Fuel
Technology, University of Sheffield, England, 1986.

D.Sc. (Higher Doctorate) Univ. of Southampton, UK, 2013.

Honorary Doctorate, University of Wisconsin Milwaukee, 2014

Honorary degree, King Mongkut's University of Technology North
Bangkok, Thailand, 2014

Honorary Doctorate, University of Derby, UK, 2015

M.Sc. in Combustion and High Temperature Gas Dynamics,
Aeronautics & Astronautics, Swirl Flow Characterization,
University of Southampton, England, 1970.

B.Sc. Science
Punjab University, India, 1966

Publications: Over 850 research papers in the areas of combustion, swirl flows,
noise and pollution, instability, diagnostics, gas turbine
combustion, spray combustion, high temperature air combustion,
wastes - see list of publications.

Thesis: 1. Gupta, A.K., Noise Emission from Swirl Combustors, Ph.D.
Thesis, Department of Chemical Engineering and Fuel
Technology, Sheffield University, England, 1973.

2. Gupta, A.K., An Experimental Investigation of Isothermal
Swirling Air Jets, M.Sc. Dissertation, Department of Aeronautics
and Astronautics, University of Southampton, England, 1970.

Books: 1. Swirl Flows by A.K. Gupta, D.G. Lilley, and N. Syred, Abacus Press,
Tunbridge Wells, Kent, England, 1984, 475 pages.

2. Flowfield Modeling and Diagnostics by A.K. Gupta and D.G. Lilley,
Abacus Press, Tunbridge Wells, Kent, England, 1985, 414 pages.

3. High Temperature Air Combustion—from energy conservation to
pollution reduction, by H. Tsuji, A. K. Gupta, T. Hasegawa, K.
Katsuki, K. Kishimoto and M. Morita, CRC Press, 2003, 401 pages.
[First printing sold out within 6 weeks of publication].

Books Edited: 1. Co-editor: Energy Engineering and Environment Series
published by CRC Press, Energy and Engineering Science Series,

Editors: A.K. Gupta and D.G. Lilley, Abacus Press, Tunbridge Wells, Kent, England (and Gordon & Breach Science Publishers), London, England, 1980 – 1993; Springer Verlag, 1990-94; CRC Press 1995-present.

2. Modeling of Furnaces and Combustors by E. E. Khalil, Abacus Press, Tunbridge Wells, Kent, UK, 1982, 260 pages. ISBN: 0-85626-303-6.
3. Fuels and Combustion in Gas Turbines by J. Odgers and D. Kretschmer, Abacus Press, UK, 1986, 186 pages. ISBN: 0-85626-342-7.
4. Laser Diagnostics for Combustion Temperature and Species by A. C. Eckbreth, Abacus Press/Gordon and Breach Publishers, UK, 1988, 350 pages. ISBN: 0-85626-344-3.
5. Combustion: A study in Theory, Fact and Applications, by J. Chomiak, Abacus Press/Gordon & Breach Science Publishers, UK, 1990, 464 pages. ISBN: 0-85626-453-9.
6. Power Plant Design by E. E. Khalil, Abacus Press/Gordon and Breach Science Publishers, 1990, UK, 370 pages. ISBN: 978-08562-65051.
7. Computer Integrated Experimentation by Ed. B. Magrab, Springer Verlag, Germany, 1991, 295 pages. ISBN: 3-540-53291-9; 0-387-53291-9.
8. Integrated Product and Process Design and Development: The Product Realization Process, by Edward B. Magrab, CRC Press, Boca Raton, FL, USA, 1997, 306 pages. ISBN: 0-8493-8483-4.
9. Enclosure Fire Dynamics, by B. Karlsson and J. Quintiere, CRC Press, Boca Raton, FL, USA, 2000, 315 pages. ISBN: 0-8493-1300-7.
10. Advances in Chemical Propulsion: Science to Technology, by G. D. Roy, CRC Press, Boca Raton, FL, USA, 2002, 528 pages, ISBN: 08943-1171-3.
11. Novel Combustion Concepts for Sustainable Energy Development, (Eds): Agarwal, A. K., Pandey, A., Gupta, A. K., Aggarwal, S. K. and Kushari, A., Springer Publishers, 2014, ISBN: 978-81-322-2210-1.
12. Handbook of Clean Energy Systems, Mitigation Technologies, Volume 3, (Eds.) A. K. Gupta and J. Yan, Wiley Publishers, 2015, ISBN: 978-118-38858-7.

13. Energy Combustion and Propulsion-New Perspectives, (Eds.): Agarwal, A. K., Aggarwal, S. K. Gupta, A. K., Kushari, A. and Pandey, A., Athena Publishers, London, UK, 2016, 609 pages, ISBN: 978-19-1039-029-0.
14. Energy for Propulsion: A Sustainable Technologies Approach, (Eds.): Runchal, A. K., Gupta, A. K., Kushari, A., De, A., and Aggarwal, S. K., Springer publishers, 2018, 494 pages, ISBN: 978-981-10-7472-1, <https://doi.org/10.1007/978-981-10-7473-8>
15. Innovations in Sustainable Energy and Cleaner Environment, (Eds.): Gupta, A. K., De, A., Aggarwal, S. K., Kushari, A., and Runchal, A.K, Workshop held at NIT Kurukshetra, February 2018, Springer publishers, 2019, 561 pages, ISBN: 978-981-13-9011-1 ; <https://doi.org/10.1007/978-981-13-9012-8>
16. Sustainable Development for Energy Power and Propulsion, Eds.: A. De, A. K. Gupta, S. Aggarwal, A. Kushari, and A. K. Runchal, Springer publishers, Sep. 2020, 586 pages, ISBN 978-981-15-5666-1, ISBN 978-981-15-5667-8 (eBook) <https://doi.org/10.1007/978-981-15-5667-8>
17. Advances in IC Engines and Combustion Technology, Eds.: A.K. Gupta, H. Mongia, P. Chandna, and G. Sachdeva, Springer Publishers, Sep. 2020. 939 pages, ISBN 978-981-15-5995-2 ISBN 978-981-15-5996-9 (eBook); <https://doi.org/10.1007/978-981-15-5996-9>
18. Advances in Energy and Combustion, (Eds.), A. K. Gupta, A. De, S. Aggarwal, A. Kushari, and A. K. Runchal, Springer Publishers, 8042_89099127, 2021, 600 pages. ISBN 978-981-16-2647-0, eBook ISBN 978-981-16-2648-7, <https://doi.org/10.1007/978-981-16-2648-7>
19. Advances in Multiphase Flows, (Eds.): A. De, A. K. Gupta, S. Aggarwal, A. Kushari, and A. K. Runchal, Begell House Publishers, 2022. 313 pages, ISBN 978-1-56700-504-2

Book Chapters:

1. Presser, C., Gupta, A. K., Dobbins, R. A. and Semerjian, H. G.: Influence of Size Distribution on Droplet Mean Diameter Obtained by Ensemble Light Scattering, ASTM Publication: Liquid Size Measurement Techniques, Editors: Hirleman, Bachalo and Felton, Vol. 2, STP 1083, 1990, p. 93-111.
2. Presser, C., Avedisian, C. T., Hodges, J. T. and Gupta, A. K.: Behavior of Droplets in Pressure-Atomized Fuel Sprays with Coflowing Air Swirl, AIAA Progress Series in Astronautics and Aeronautics, Recent Advances in Spray Combustion: Spray

- Combustion Measurements and Model Simulation, Vol. 171, Ed. K.K. Kuo, April, 1996, pp.31-61.
3. Gupta, A. K., Megerle, M., Charagundla, S. R. and Presser, C: Spray Flame Characteristics with Steam-Assisted Atomization, Chapter 16 in Advances in Chemical Propulsion Science and Technology, Ed.: G. D. Roy, CRC Press, 2001, pp. 261-274.
 4. Lois, E., Keating, E. L. and Gupta, A. K.: Fuels, Chapter in the Book “Encyclopedia of Physical Science and Technology”, 3rd Edition, Vol. 6, John Wiley, New York, 2002, pp. 275-314.
 5. Gupta, A. K. and Lilley, D. G.: Thermal Destruction of Wastes and Plastics, Chapter 15 in the Book entitled ‘Plastics and the Environment’, John Wiley & Sons, Inc., 2003, pp. 629-696.
 6. Linck, M., Habibzadeh, B. and Gupta, A. K.: Passive Control of Flow and Flame Structure in Spray Combustion, Chapter 32 in the book entitled ‘Advances in Combustion and Noise Control, Cranfield University Press, (Eds.: G. D. Roy, K. H. Yu, J. H. Whitelaw, and J. J. Witton), 2005, pp. 491-511.
 7. Gupta, A. K., Habibzadeh, B., Archer, S, and Linck, M: Control of Flame Structure in Spray Combustion, Chapter 12 in the book entitled ‘Combustion Processes in Propulsion’, (Ed. G. D. Roy), Elsevier Publishers, 2006, pp. 129-137.
 8. Gupta, A. K.: Advanced Technologies for Clean and Efficient Energy Conversion in Power Systems, in the book entitled “Thermal Engineering Aspects in Power Systems”, WIT Press, UK, 2008.
 9. Yu, M., Bryden, M. and Gupta, A. K.: Towards Smart High Density Sensor Network for Combustion and Power Plant Monitoring, in the book “Advanced Power Plant Materials, Design and Technology”, Woodward Publishing Co., UK, 2010.
 10. Gupta, A. K., Mochida, S. and Yasuda, T.: Regenerative Combustion using High Temperature Air Combustion Technology (HiTAC), Industrial Combustion Testing, Ed.: Charles Baukal, John Zink Co, Tulsa, OK, 2010.
 11. Gupta, A. K.: Waste and biomass to Clean Energy, in Handbook of Clean Energy Systems, Mitigation Technologies, Wiley, Volume 3, pp. 1797-1920, 2015, ISBN: 978-118-38858-7.
 12. Khalil, A. E. and Gupta, A.K.: Mixture Preparation Effects on Distributed Combustion for Gas Turbine Applications, in Novel Combustion Concepts for Sustainable Energy Developments, Springer Publishers, pp. 277-296, 2015, ISBN: 978-81-322-2210-1.
 13. Gupta, A. K.: Waste and Biomass to Clean Energy, Energy Combustion and Propulsion: new Perspectives, Athena Publishers, London, UK, pp. 453-496, 2016, ISBN: 978-19-1039-029-0
 14. Arghode, V and Gupta, A. K.: Investigation of Forward and Reverse Flow CDC Combustors, Springer publishers, 77-100, ISBN 978-981-10-3784-9, <https://doi.org/10.1007/978-981-10-3785-6>
 15. Burra, K.G., and Gupta, A.K.: Thermochemical Reforming of Wastes to Renewable Fuels, in Energy for Propulsion, Springer Publishers, pp. 395-428, 2018, ISBN 978-981-10-7472-1
 16. Burra, K.G, and A. K. Gupta: Nonlinear Synergistic Effects in

- Thermochemical Co-processing of Wastes for Sustainable Energy, in Innovations in Sustainable Energy and Cleaner Environment, Springer Publishers, pp. 117-148, 2020, ISBN 978-981-13-9011-1
17. Burra, K. G., Chandna, P., and Gupta, A. K.: Thermochemical Solutions for CO₂ Utilization to Fuels and Value-Added Products, in Sustainable Development for Energy, Power, and Propulsion, Springer Publishers, pp. 59-89. 2021, ISBN 978-981-15-5666-1, ISBN 978-981-15-5667-8.

Journal Editorships:

Editor in Chief

Intl. J. of Energy and Clean Environment (2019-Present)

Associate Editor

ASME J Energy Resources Technology, (2018-present), J. Propulsion and Power (1995-present), J. Sustainable Energy and Environment (2008-present), Intl. J. Applied Science and Tech., KMUTNB (2015-present), Intl. J. of Sprays and Combustion Dynamics (2012-present), Intl J. of Rotating Machinery (2020–present), and Progress in Energy and Combustion Science (2013-2018), J. Applied Energy (2009-2021).

Journal Paper Reviewer:

Served as a reviewer for many journals including The Combustion Institute, Combustion and Flame, Combustion Sci. and Tech., Applied Energy, Fuel, Atomization and Sprays, Progress in Combustion and Energy Science, J. Hydrogen Energy, ASME JERT, Energy, Fuel Processing Tech., Fuel, Biomass and Bioenergy, Energy and Fuels, J. Propulsion and Power, J. Sprays and Combustion Dynamics, Intl. J. Applied Science and Technology, Applied Mechanics Reviews, AIAAJ, JPP, J. Energy (UK), and several other journals.

Patents:

1. Gupta, A.K.: Method and system for recovering sulfur in the thermal stage of a Claus reactor, US Patent No. 8,449,860B2, granted May 28, 2013.
2. Gupta, A. K.: Fuel Efficient Ultra Low Emission Colorless Distributed Combustor for Gas Turbine Application in Stationery and Propulsion Systems, US8695350B2, also published as US20110023492, granted April 15, 2014.
3. Gupta, A. K.: Fuel Efficient Ultra Low Emission Colorless Distributed Combustor for Gas Turbines in Stationery and Propulsion Applications, US patent No. 14/223378, granted September 6, 2016.
4. Yang, W., Blasiak, W., and Gupta, A.K.: A novel routine to generate renewable liquid matters and fuels using ultra high temperature steam pyrolysis of lingo-cellulose based raw material, Swedish Patent No. 535121, Issued on March 20, 2012.
5. Scenna, R and Gupta, A. K.: Methods and Systems for Distributed Reforming of Hydrocarbon Fuels for Enhanced Hydrogen Production, Filed June 12, 2018, In progress
6. Yang, B., and Gupta, A, K.: Fraction Separation of Coal in Supercritical CO₂ for Fuel and Value-added Products, Filed April 5, 2022, In progress.

Recent Doctoral Students Advised and Graduated (partial list, since 2005)

PhD Thesis Main Advisor

Sean S. Archer (African American), Graduated in August 2005. Now employed as Lead Engineer/Technologist, Combustion Aero Technology and Design at General Electric Co.,

Cincinnati, OH

Mohammad Ghaderi, Graduated in December 2005. Now working as Combustion Engineer at a Company in MD.

Martin B. Linck, Graduated in May 2006. Now working as Group Leader, at Institute of Gas Technology, Chicago, IL.

Vivek Gautam, Graduated in Dec. 2007. Worked as Research Engineer at Air Liquide, Elkton, MD, Now President of American Combustion Intl., Atlanta, GA

Ahmed Abdelhafez, Graduated in June 2009. Worked as Post doc researcher at NSWC, Indian Head, MD; Research engineer at GE Global office, Schenectady, NY. Now Research Professor at KFUPM, Saudi Arabia.

Vineeth Vijayan, Graduated May 2010. Now working as Research Engineer at General Electric Co, KY.

Vaibhav Arghode, Graduated in October 2011. Now working as Associate Professor at IIT Kanpur India.

Islam Ahmed Gomma, Graduated in December 2011. Now working as Engineer at GE Energy, NC.

Hatem Selim, Graduated in December 2012, Worked as a Group leader at GE Saudi Arabia. Kingdom of Saudi Arabia

Vivek Shirsat, Graduated December 2012, Now working as Patent Examiner, Patent and Trademark Office, Washington DC.

Ahmed Khalil, Graduated in December 2013. Now working as Research Engineer at General Electric company Cincinnati, OH. Previously worked as Postdoc at the UMD Combustion Lab., Univ. of Maryland.

Salisu Ibrahim, Graduated in May 2015. Now working as Postdoc at The Petroleum Institute and ADNOC, Abu Dhabi, UAE.

Henry Molintas, Graduated in December 2015, Now working as Environmental Engineer, NSWC Carderock Division, Bethesda, MD.

Richard Scenna, Graduated in May 2017, Now working as Research Engineer at US Army, APG, Aberdeen.

Ahmed Mahmoud ElMelih, Graduated in June 2017, Now working at Mechanical Engineering Dept., Cairo University, Egypt

Jonathan Brooks, Graduated in July 2018, Now working as Program Manager at TMRC, MD, Previously worked as Research Engineer in an R&D company in Genova, Italy.

Kiran Raj Goud Burra, Graduated in March 2021, Now working as Research Associate at the Univ. of Maryland Combustion Lab.

Rishi Roy, Graduated in December 2022, Now working as Postdoc at Sandia National Labs, CA.

Co-Advisor

Magnus Mortberg. KTH, Royal Institute of Technology, Stockholm, Sweden, Graduated in May 2005, [PhD], Now Branch Head of Combustion at Air Liquide, Paris, France

Atsushi Katoh. Tokyo Institute of Technology, Tokyo, Japan, Graduated in March 2006, [PhD]. Now working as lead combustion engineer in a R&D company, Japan

Kriengsak Sangtong-Ngam, Graduated in September 2006 [M. Phil]. King Mongkut University of Technology Thonburi, Bangkok, Thailand

Nimit Nipattummakul, Graduated in April 2011 [PhD]. King Mongkut University of Technology North Bangkok, Bangkok, Thailand, Now working as Team Manager at National Innovation Agency (NIA), Bangkok, Thailand.

MS Thesis Main Advisor

Ryan James, May 2010. Now working as Engineer at Coast Guard Academy, Washington, DC.

Aaron Lyko, Graduated in May 2013. Now working as Engineer at Coast Guard Academy, Norfolk, VA.

Kevin Burnett, Graduated in May 2015, Now employed at The US Naval Academy, Annapolis, MD.

Teresa Wierzbecki, Graduated in August 2015. Now working in NYC

Jacob Lee Mendelson, Graduated December 2016. Now employed at US Navy.

Parth Kathrotiya, May 2017, Now working as research Engineer at Johns Hopkins APL, MD. Prior at USAF, Tunnel 9 White Oak, MD.

William Van Cleve, August 2017, Now working as Engineer at Coast Guard Academy, Washington DC.

Joseph S. Feser, December 2019. Now working on his PhD thesis research in the combustion Lab., UMD and AEDC T9 Facility, White Oak, MD.

Chase Standage, November 2021, Now working at the US Navy.

Invited Lectures

Invited Lectures at universities and conferences (partial list):

- Several at ASME, AIAA and SAE meetings over 45+ years
- German Flame Day, Univ. of Bochum, Germany
- University of Karlsruhe, Germany
- Royal Institute of Technology, KTH, Sweden
- University of Connecticut, Storrs, CT
- University De Rouen, France
- Tufts University, Boston
- Boston University, Boston
- Northeastern University, Boston
- MIT, Cambridge
- Iowa State Univ., Ames, IA
- Cornell University, Ithaca, NY
- University of Rhode Island, Kingston
- Ohio State University, Columbus, OH
- Purdue University, W. Lafayette, IN
- Nagoya Univ., Tokyo Univ., Gumma Univ., Mie University, Japan
- Many other institutions/organizations throughout the world

Invited Lectures at Industrial organizations include (partial list):

UK: CEGB, ICI, GEC, BP, I.C., and Tioxide Intl., Rolls Royce.

USA: Combustion Eng., GE, UTRC, Cabot Corp., Riley Stoker, Union Oil, Boeing, Amoco Oil, ARCO Petroleum Co., Katalco Corp., SWRI.

Japan: NFK, Tokyo Gas, Japan National Aero Labs (JAXA), University of Tokyo,

Gunma Univ., Nagoya University, Mie University, JIFMA, MITI, NEDO, Toshiba Corp., Mitsubishi Co., NKK, Chiyoda Corp., Honda Motor Co., Nissan Motor Co., Toyota Motor Co., and many other universities and companies in Japan.

Switzerland: Alstom Power, Baden

Sweden: Royal Inst. of Tech (KTH), Volvo AB, Groteborg, Jernkontoret

Germany: Siemens AG, MTU, Univ of Karlsruhe, Univ. of Ruhr, Bochum, Freiburg Inst.

Courses Taught

- Principles of Combustion
- Experimental Methods in Combustion and Heat Transfer
- Thermodynamics 1, 217
- Thermodynamics 2, 315
- Fluid Mechanics 1, 342
- Energy Conversion Design, 405
- Mechanical Engineering Systems Design, 404
- Engineering Experimentation, 480
- Mechanical Engineering Laboratory, 703
- Combustion, 808C, and Introduction to Combustion Phenomena, 489C.
- Thermal Destruction Technology, ENPM 626
- Energy Conversion Systems for Sustainability, ENME489X
- Product and Process Development, ENME 471
- Renewable Energy, ENME 425
- Thermodynamics, ENME 320
- Air Pollution, ENPM 623 and ENME 489A
- Waste Destruction and Pollution Technology, ENME489W

Courses Developed

- Combustion
- Engineering Experimentation
- Thermal Destruction Technology
- Air Pollution
- Renewable Energy
- Sustainable Energy
- Solar Energy

Externally Funded Research

1. AVCO Grant, NO_x Emission from MASB, \$40,000 in July 1, '85 - Sep. 30 '86, Principal Investigator: A.K. Gupta
2. AVCO Grant, NO_x Emission from MASB, (continuation of above grant) \$120,000 Nov. 1, '86 - Oct. 31 '88, Principal Investigator: A.K. Gupta

3. Navy - ONR, Fouling and Particulate Deposition and Low Temperature Surfaces, \$232,850, Sep. 1 '85 - Aug. 31 '88, Principal Investigator: A.K. Gupta
4. Peace Fellowship, 1 student Fellowship plus \$4,500
5. NSF Equipment Grant, \$31,000, July 1 '88 - June 30 '89, P.I.: A.K. Gupta
6. USNA Grant, \$9,500, PI: A.K. Gupta
7. MIPS - Gerace Combustion, \$105,000, August '89 - July '91, P.I.: A.K. Gupta
8. MIPS - MTCI, \$75,000, February '90 - January '91 - February '91, P.I.: A.K. Gupta
9. FRCU/Cairo University Grant, \$100,000, March '90 - February '92, P.I.: A.K. Gupta
10. Peace Post Doctoral Fellow, plus \$4,000, January '91 - June '91, P.I.: A.K. Gupta
11. Navy, \$56,500, September '91 - August '92, P.I.: A.K. Gupta
12. Navy, \$75,000, November '92 - March '95, P.I.: A.K. Gupta.
13. NSF, \$231,000, March '93 - September '96, P.I.: A.K. Gupta.
14. NASA, \$219,000, April '93 - Feb. '97, P.I.: A.K. Gupta.
15. Navy, \$67,000, June '93 - October '94, P.I.: A.K. Gupta.
16. Navy, \$10,000, September '93 - December '93, PI: A.K. Gupta.
17. Sonex Research, \$137,000, September '92 - September '94, P.I.: A.K. Gupta.
18. Navy, NSWCCD, \$918,000, December '93 - December '99, PI: A.K. Gupta.
19. MIPS - Lean Power \$79,000, February '93 - February '96, P.I.: A.K. Gupta.
20. NASA, Hypersonic Research Center, \$1,100,800, Aug. '93 - Aug. '98, Co-P.I.: A.K. Gupta.
21. SCERDC (DoE), \$573,000, August '94 - April '98, P.I.: A.K. Gupta.
22. NIST, \$67,000, February '96 - December '96, P.I.: A.K. Gupta.
23. ONR, \$323,000, July '95 - June '98, P.I.: A.K. Gupta.
24. ONR, DURIP, \$189,900, March '97 - Feb. '98, P.I.: A.K. Gupta.
25. AERA (NAVAIR) \$50,000, Dec. '97 - Nov. '98, P.I.: A.K. Gupta
- 26 NSF, \$225,000, July '97 - June '05, P.I.: A.K. Gupta
27. NASA HQ, \$410,000, February '99- January '04, P.I.: A.K. Gupta.
28. ONR, \$310,000, April '99 - March '04, PI: A.K. Gupta.
29. Teledyne Brown Engineering, \$251,000, August 2000-May 2002, PI: A.K. Gupta.
30. NASA Glenn September '01- December '06. Total for 5 yrs. project \$575,000. PI: A.K. Gupta.
31. ONR, DURIP, \$468,500, February 2001-September 2002, PI: A. K. Gupta.
32. ONR \$840,000, February 2003-December 2006, Co PI: A. K. Gupta.
33. NASA URETI, August 2002- July 2007, \$15,000,000, Co-PI: A. K. Gupta, Advanced Propulsion.
34. GVE \$30,000, September 2003–May 2004, PI: A. K. Gupta, Additional \$85,000, May 2005-February 2006.
35. MIPS, Astrox Corp., Inward Turning Design, \$50,000, February 2004-January 2005, Co-PI: A. K. Gupta.
36. ONR, Waste Destruction, July 2004-June 06, \$210,000, PI: A. K. Gupta.
37. MIPS, Astrox Corp, Inward Turning Design, \$100,000, August 15, 2005-August 14, 2006, PI: A. K. Gupta.
38. ONR, Waste Destruction, \$599,000, Feb 06- Jan 2011, PI. A. K. Gupta.
39. MDA, Micro-combustor Development, \$500,000, Nov. 05-Nov 08, P.I.: A. K. Gupta.
40. AEDC, Raman Spectroscopy and High Temperature Seals, \$60,000, March 2005-March 2010, PI: A. K. Gupta.
41. GVE, Flameless (HiTAC) Gas Turbine Combustor Development, \$150,000, July–September, 2008 – March 2010, PI: A. K. Gupta.
42. DoE/Ames Lab., Multi Sensors for Combustion Systems, June 06-Sep 10, \$175,000, PI: A.K. Gupta; Sep. 2010- Sep 2015, \$900,000, PI: A. K. Gupta, Co-PI: M. Yu.

43. Petroleum Institute, UAE, Energy and Education Research Collaboration (EERC), \$4,000,000, October 2006—October 2009, Co-PI: A. K. Gupta.
44. ONR, Active Control of Ram Jet Combustor, Sep. 1, 2007 – Aug. 28, 2011, \$447,000, PI: K. H. Yu, Co-PI: A. K. Gupta.
45. ONR, Flameless oxidation of fuels for Application in Gas Turbine Combustors, Sep. 1, 2007 – Sep. 31, 2012, \$465,000, PI: A. K. Gupta, Co-PI: K. H. Yu.
46. MDA, Micro-Combustor Development for Bipropellant, June 2009- April 2013, \$599,700, PI: A. K. Gupta.
47. GVE, Development of Distributed Combustion for gas Turbine Application, \$30,000, January-June 2011, PI: A. K. Gupta.
48. Petroleum Institute, UAE, Sulfur Recovery from gases, April 2009- December 2012, \$480,000, PI: A. K. Gupta, Total project funding ~\$6,000,000 for 3 years.
49. DoE/Ames Lab., Green Turbine Combustor Development for Zero Emission Gas Turbine Application, March 2010- March 2015, \$900,000, PI: A. K. Gupta,
50. MSU, DLA, Distributed Combustion using Alternative Fuels, \$99,998, September 1, 2010- March 31, 2012, PI: A. K. Gupta
51. AEDC, Design of High Temperature Seals, \$26,000, January 2011-September 2012, PI: A.K. Gupta.
52. MSU, DLA, Distributed Combustion using Alternative Fuels, \$99,000, Oct. 1, 2011-June 2013, PI: A. K. Gupta.
53. Army Research lab, Development of High Performance and Fuel Flexible Distributed Combustion for Gas Turbine Engines and Power generation, \$139,999, Sep. 1, 2011 - March. 31, 2013, PI: A. K. Gupta.
54. ARL, Graduate Fellowship, PI: A. K. Gupta, \$42,000/year for one year at a time up to about 4 years. July 2012-July 2016.
55. AFOSR, A Center of Excellence for Revitalization of the Hypersonic Testing and Evaluation Workforce, Co-PI: A. K. Gupta, \$2,628,314, 09/15/2010 – 09/14/2017, (Co-PI Portion \$532,000 (PI: K. Yu and M.J. Lewis).
56. Petroleum Institute, UAE, Treatment of Contaminants (BTX) in Crude Natural Gas in Claus Reactor, PI: A. K. Gupta, \$347,485, Sep 2011-Sep 2014.
57. NASA GSFC, Micro-combustor development, PI: A. K. Gupta, \$20,000, October 2011- March 2013.
58. AEDC, Arnold Airforce Base, AEDC/White Oak Systems Engineering Team Engineering Assistant, PI: A. K. Gupta, \$29,700, 01/06/2011 – 09/30/2017.
59. NSF EAGER, Minimum Thermal Conductivity and Thermal Expansion Ceramic Nanocomposites for Microcombustor, PI: A. K. Gupta (with B. Yang as Co-PI), \$127,500, 08/15/2012 – 07/31/2016.
60. Virtuhcon, Dresden, Germany, Experimental Examination of Coal Char Particle Porosity and Properties during Gasification in CO₂/Steam Environments, PI: A. K. Gupta, \$76,700, July 2012-July 2013.
61. AEDC Arnold Airforce Base, Tunnel-9 Heater Hot Gas Venting System Thermal Analysis, PI: A.K. Gupta, \$150,000, 09/01/2014 – 05/31/2017.
62. MDA, ADN Micro-Propulsion, PI: A.K. Gupta, \$699,000, August 2013-December 2016.
63. Petroleum Institute, GASCO, Separation of Hydrogen from Hydrogen Sulfide Stream, PI: A.K. Gupta, March 2014-July 2017, \$549,962.
64. ONR, High Temperature Energy Systems (HiTES), PI: A. K. Gupta, \$2,149,625, June 2014-June 2018.
65. ONR DURIP, Advanced Diagnostics for High Temperature Distributed Combustion, PI: A. K. Gupta, \$476,958, 6/30/2016 - 6/30/2018.

66. AFOSR, Hypersonic Center of Testing Excellence for Fostering Future Test & Evaluation Workforce, \$2,574,230, 12/15/2016 to 12/14/2022, Co-PI (A. K. Gupta) portion: \$600,000 (PI: Ken Yu)
67. ONR, High Temperature Energy Systems II (HiTES-II), PI: A. K. Gupta, \$3,000,000, July 2017-August 2022.
68. NSF, Development of Next Generation Microcombustor–Thruster Using Anisotropic Nano-Coating, PI: A. K. Gupta, co-PI: B. Yang, \$340,000, 9/2017- 8/2023.
69. AF Tunnel-9 Heater Hot Gas Venting System Thermal Analysis and Seals, \$25,000, PI: A.K. Gupta, Sep 1, 2019-May 31, 2024.
70. DoE, Waste to value added products, \$1,200,000, PI: M. Castaldi, CUNY, Co-PI (A. K. Gupta) portion \$248,000, July 15, 2021-July 14, 2023.
71. DoE, Near-critical Fluids Treatment for Liquefaction and Extraction of Bio-Fuels, PI: A.K. Gupta, \$3,876,702, September 2021 to Sep, 2025.
72. DoE. Development of Hetero-multilayered Ceramic Thermal barrier Coatings for Hydrogen Turbines for Stationary Power Generation, \$1,000,000, Co-PI (A.K. Gupta) portion \$500,000, May 2023 – May 2025.
73. NSF, Workshop on Biomass Utilization with Supercritical CO₂ for Value-added Materials, Power and Propulsion, India, \$44,870, PI: A. K. Gupta, October 1, 2022 to March 1, 2024.
74. NSF, Biomass Utilization with Supercritical CO₂ for Value-added Materials, \$200,000, PI: A.K. Gupta, June 2023-June 2025.

At UMD embarked, developed and directs the Combustion Laboratory. Key Facilities developed in this lab include:

- Variable Geometry Swirl Combustor
- Double concentric premixed and diffusion swirl combustors
- Fouling and Deposition Flow Facility
- Single Droplet Studies
- Modulated Swirl Combustor
- Optically Accessible Internal Combustion Engine with Square Piston
- Spray Combustion Facility
- Controlled Mixing History Plasma Reactor
- Waste Fuel Thermal Destruction Facility
- Simulated High Pressure and High Temperature Mixing Facility
- Combustion in Microgravity facility
- High Temperature Air Combustion Facility
- High Temperature Gasification Facility
- High pressure and high temp supercritical fluid reactors
- Underwater Propulsion Studies Facility
- Rocket Injector Test Facility for Space Propulsion Studies

Key Diagnostic Facilities in the Lab include:

- Laser Velocimetry
- 3-D Particle Image Velocimetry (PIV), 2 Systems; Also 2-D High frequency, 3KHz, PIV
- 2-D Phase Doppler particle Size Analyzer (PDPA)
- High Speed Cinematography and low speed Photography

- IR Thermal video cameras
- PLIF, GC/MS, FTIR and TGA/DSC diagnostics
- Micro-Gas Chromatograph and Gas Chromatograph
- Gas analyzers for CO, CO₂, O₂, UHC, NO/NO_x, SO_x,
- Laser Interferometry
- Flow Visualization via Image Digitization
- Droplet/Particle Sizing via Image Digitization
- Velocity and Concentration Probes for use in Utility Boilers
- Suction Pyrometer for use in Utility Boilers

Professional Services/Activities

- Deputy Director of Energy AIAA (2019+)
- Chair, ASME Fuels and Comb. Tech. Section, Power Division, (2016+)
- Director of Propulsion and Energy, AIAA (2007-2013)
- Oversight Chair, International Conference on Incineration and Thermal Treatment Technologies, IT3 (2001+)
- Deputy Director of Energy, AIAA, 2000-2007.
- Chair of Propellants and Combustion Technical Committee, AIAA (1988-1990).
- Chair of Terrestrial Energy Systems, Tech. Comm. AIAA, 1990-2000.
- Founding co-editor of Energy and Engineering Science (Abacus Press/Gordon & Breach Publishers), and Environmental and Energy series of textbooks, CRC Press (1995+).
- Chairman, ASME Fuels and Combustion Technologies Division, 1999-2001.
- Program Chair, ASME Computers and Information in Engineering (CIE) Conference, 1999, Division Chair, 2002-2003.
- ASME Fuels and Combustion Technologies (FACT) Division Chair, 1999-2001.
- Track chair of Fuels and Fuel handling section, ASME Power Division, 2016-present.
- Program Vice-Chair, 31st and 32nd IECEC Conferences, 2003 and 2004
- Associate editor of Journal of Propulsion and Power (1996-present)
- Editor in chief, Intl. J. Energy for a Clean Environment, (2020-present)
- Session Chairman and Abstract/Paper Reviewer for AIAA, ASME, SAE and Combustion Institute on several occasions since 1980.
- Wrote "Aerospace Highlights" P&C TC 1987 article, published in Dec. 1987 issue of Aerospace America; also contributed during 1988 - present.
- Organized all Propellants & Combustion sessions at 24th Aerospace Sciences Meeting, Jan. 1986.
- Reviewer for several Intl. Journals & Publishers in Energy, Fluids & Environment areas.
- Reviewer for NSF, EPA, DOE, ASEE, NASA and State of Maryland.
- Assisted many companies in Maryland through U. of MD Eng. Research Center.
- ASME and AIAA Conferences Paper Selection and Review.
- Conference Session Organization and Chairmanship.
- Member Board of Boiler Rules, State of Maryland (1991+), Chair (2003-present).

University Services

- Clark School of Engineering, UMD, Appointment, Promotion and Tenure (APT)

Committee (2016-2019); APT Chair (2018-19)

- Member of the Clark Endowed chair committee (2022-present)
- Member of the Clark School College Level APT Committee (2023-present)
- Mechanical Engineering Dept. safety committee (2016-present)
- Division Leader, Thermo-Fluids & Energy Systems (TFES) Group, Mech. Eng. Dept. (2003-2011)
- Administration of a large group of student activity on grants and contracts.
- Member Graduate Committee, Mech. Eng. (1985-1987, and 1994-99).
- Faculty Prospect Screening Committee in Energy (1985+).
- Energy Conservation at U. MD Physical Plant Boilers (1986-92).
- Established Intl. Cooperative Research Exchanges between Univ. of MD and UAE, Egypt, Sweden, France, Japan, Brazil, Peru, Thailand and India.
- Campus adjunct committee on Research (1988-90)
- Super Mileage Vehicle development and national competition (1993-98). Achieved 520 miles/Gallon of fuel.
- Member of Department Executive Committee (1988-94).
- Member of Department safety committee (1997-2000).
- Graduate committee (1995-1998).
- Mech. Eng. Dept. advisory committee (2003-09).
- College promotion & tenure (APT) committee, Member & Committee Chair (2016-2018)
- ME dept safety Committee (2015-present)

Invited, Keynote and Plenary Lectures (Partial List):

1. Gupta, A.K.: High Intensity Colorless Distributed Combustion (CDC), University of Windsor, Windsor, Ontario, Canada, March 22, 2023.
2. Gupta, A.K.: Thermal Decomposition of Cellulose in Gasification and Supercritical CO₂ for Value Added Char Production, TSME International Conference on Mechanical Engineering (TSME-ICoME 2022), December 14-15, 2022, Phuket, Thailand
3. Gupta, A. K.: Impact of Flowfield on Pollutants Emission from a Swirl Assisted Distributed Combustor, Plenary lecture, 26th National Combustion Conference, NIT Kurukshetra, India, November 2, 2019.
4. Gupta, A. K.: Colorless Distributed Combustion: Recent Developments and Path Forward, Invited keynote at Workshop on MILD/Distributed Combustion, Naples, Italy, Jan. 24-25, 2019.
5. Gupta, A.K: Waste Utilization for Sustainable Energy Resources, 10th International Conference on Combustion, Incineration/Pyrolysis, Emission and Climate Change (I-CIPEC), Plenary lecture, Bangkok, Thailand, Dec. 18-21, 2018.
6. Gupta, A. K.: Fuel Upgrading to Cleaner and High Value Fuels and also Pyrolysis, Gasification and Fuel Reforming, Congreso Internacional de Energia de la Biomass y Desechos Organicos, Plenary lecture, National University of San Agustín, Arequipa, Peru, June 21-23, 2017
7. Gupta, A. K.: Sustainable Clean Energy Production in a Carbon Constrained World, 7th TSME International Conference on Mechanical Engineering (TSME-ICoME 2016), Chiang Mai, Thailand, Dec 14-16, 2016.
8. Gupta, A.K.: Gasification, Pyrolysis and Fuel Reforming, DBR Lecture at University of Calgary, Alberta, Canada, Jan. 7, 2016.

9. Gupta, A.K.: Role of Fuel Injection Scheme in a High Intensity Combustor, Invited Keynote Lecture at Intl. Symposium on EcoTopia Science (ISETS 2015), Nagoya University, Nagoya Japan, Nov. 27-29, 2015.
10. Gupta, A.K.: Colorless Distributed Combustion (CDC): What it is and Where it is Heading, Plenary Lecture at 10th European Conference on Boilers and Industrial furnaces, Porto, April 7-10, 2015.
11. Gupta, A.K.: Clean Energy Production from Wastes and Biomass, Keynote lecture at Intl. Conference on Applied Energy, Abu Dhabi, UAE, March 28-31, 2015.
12. Gupta A.K.: Clean Energy Production from Wastes and Biomass, Plenary Lecture at Thai Society of Mechanical Engineering conf., Chiang Mai, Thailand, Dec. 17-19, 2014.
13. Gupta, A. K: Clean Energy Production from Wastes, World Green Energy and Resources Congress (WGERC), Beijing, China, Nov. 1-3, 2014.
14. Gupta, A.K.: Gupta, A.K.: Plenary Lecture, Global Challenges and Opportunities Provided by Growing Energy Demands, Intl. Symposium on EcoTopia Science (ISETS 2013), Nagoya University, Nagoya, Japan. December 13-15, 2013.
15. Gupta, A.K.: Keynote Lecture 'Towards Efficient, Affordable and Sustainable Green Energy', Intl. Symposium on EcoTopia Science (ISETS 2013), Nagoya University, Japan, Dec 13-15, 2013.
16. Gupta, A. K.: Increasing Efficiency for Energy Sustainability and Reduced Environmental Footprint, Invited presentation at KMUTNB, Nov. 13, 2013.
17. Gupta, A.K.: Increasing Efficiency for Energy Sustainability and Reduced Environmental Footprint', World Green Energy & Resources Congress 2013 (WGERC 2013), Changwon, S. Korea, October 28-29, 2013
18. Gupta, A.K.: Sustainable Energy for Rapid Transition to Market Place, 2013 International Conference on Alternative Energy in Developing Counties and Emerging Economies (2013AEDCEE), Pullman Bangkok King Power Hotel, Bangkok, Thailand, May 30-31, 2013.
19. Gupta, A.K.: Short course on 'High Temperature Air Combustion', Monastir, Tunisia, May 19, 2013.
20. Gupta, A. K.: Trends in Global Energy use and Pinnacle Role of HiTAC and renewable Energy, King Mungkut University North Bangkok (KMUTNB), Thailand, Nov. 20, 2012.
21. Gupta, A. K.: Trends in Global Energy use and Pinnacle Role of High Temperature Air Combustion (HiTAC), World Green Energy and Resources Congress (ATA), Changwon, S. Korea, Nov. 5-6, 2012,
22. Gupta, A. K.: Clean and Efficient Power Production and Role of Renewable Energy, Plenary Lecture at The Fifth International Exergy, Energy and Environmental Symposium (IEEES-5), Luxor, Egypt, December 12-15, 2011.
23. Gupta, A. K.: Clean Power Production and Role of Renewable Energy, Intl. Symposium on EcoTopia Science (ISETS), Nagoya University, Japan, December 9-11, 2011
24. Gupta, A. K.: Evolution of Syngas from Rice Husk Pyrolysis and Gasification, Keynote Lecture, Advanced Technology and Applications (ATA), Kyungnam University, S. Korea, Nov 1-3, 2011.
25. Gupta, A. K.: Clean and Sustainable Future Power Generation, Plenary Lecture at World Renewable Energy Congress (WREC), Bali, October 17-19, 2011
26. Gupta, A. K.: Clean and Efficient Energy Production corm Coal and Biomass, Plenary Lecture at 7th Intl. Symposium on Coal Combustion (7th ISCC), Harbin, China, July 17-20, 2011.
27. Gupta, A. K. High Temperature air Combustion and Fuel Reforming, Seminar at University of Illinois, Chicago, IL, November 30, 2010.

28. Gupta, A. K.: High Temperature air Combustion and Fuel Reforming, Seminar at Michigan State University, East Lansing, MI, October 12, 2010.
29. Gupta, A. K.: High Intensity Colorless Distributed Combustion for Stationary Gas Turbine Application, 8th HiTACG Conference, Poznan, Poland, July 5-7, 2010.
30. Gupta, A. K.: Gasification Kinetics of Paper Char, Intl. Green Energy Conference (ATA), Nov 12-13, 2009.
31. Gupta, A.K.: Clean Power Generation from Fuels using High Temperature Air Combustion Technology, Iowa State University, Dept. of Mechanical Eng, Ames, Iowa, February 12, 2008.
32. Gupta, A.K.: High Temperature Air Combustion: Energy Savings, Pollution Reduction and Fuel Reforming, Plenary Lecture, 7th Intl. High Temperature Air Combustion and Gasification Conference, Phuket, Thailand, January 13-16, 2008.
33. Gupta, A. K.: Simulation of Claus Furnace under HiTAC Conditions for Enhanced Sulfur Recovery, Intl. Workshop on Advances in Combustion Science and Technology, Kanpur, India, December 31 2007-Jan 2, 2008.
34. Gupta, A. K.: Ultra-high Temperature Steam Gasification of Coal and biomass for Enhanced Hydrogen Production, Invited Keynote lecture at 13th International Symposium on Advanced Technologies and Applications, Pusan, Korea, November 1-3, 2007.
35. Gupta, A. K.: High Temperature Air Combustion: Energy Savings, Pollution Reduction and Fuel Reforming, Invited Lecture, AFRC/JFRC Int'l Symposium at the Marriott Waikoloa, Hawaii, Oct. 22-24, 2007.
36. Gupta, A. K.: High Temperature Air Combustion and Fuel Reforming, 5th Mediterranean Combustion Symposium, Monastir, Tunisia, September 10-13, 2007.
37. Gupta, A. K.: Clean Power Generation from Wastes using High Temperature Air Combustion Technology, Invited Keynote Lecture at 2nd Joint Intl. Conference on Sustainable Energy and Environment, Bangkok, Thailand, November 21-23, 2006
38. Gupta, A. K.: Hydrogen Production from Wastes, Biomass and Coal using Steam Gasification, Invited Keynote lecture at 12th International Symposium on Advanced Technologies and Applications, Pusan, Korea, November 8-11, 2006.
39. Gupta, A.K.: Clean Power Generation from Wastes using High Temperature Air Combustion Technology, 1st Intl. Conference Energy 2030 Conference, Abu Dhabi, UAE, November 1-2, 2006.
40. Gupta, A. K.: Clean Power Generation from Fuels using High Temperature Air Combustion Technology, Keynote Lecture at Sustainable Energy and environment Conference, Bangkok, Thailand, November 21-23, 2006.
41. Gupta, A. K.: Flameless Oxidation of Fuels and its Application to Industrial Furnaces, Keynote Lecture at 7th European Conference on Industrial Furnaces and Boilers (INFUB-7), Porto, Portugal, April 18-21, 2006.
42. Gupta, A. K.: High Temperature Air Combustion (Flameless Oxidation) and Fuel Reforming, Invited Lecture at 42nd AIAA Aerospace Sciences Meeting, Reno, NV, Jan 9-12, 2006.
43. Gupta, A. K.: Clean Energy Conversion from Wastes, Keynote Lecture, 1st Brazilian Conference, Port Alegre, Brazil, December 5-7, 2005.
44. Gupta, A. K.: Advanced Laser Diagnostics for Combustion, Keynote Lecture at 13th Intl. Symposium on Laser Spectroscopy, KAERI, Taejon, Korea, November 3-4, 2005
45. Gupta, A. K.: Challenges and Opportunities for Solid Wastes, Invited presentation, ASME Computers and Information in Engineering (CIE) Conference, Long Beach, CA, September 24-28, 2005, Paper No. DETC2005/CIE-84607
46. Rafidi, N., Blasiak, W. and Gupta, A. K.: High Temperature Air Combustion and its

- Thermodynamics, Invited Keynote, XIX National Congress of Thermodynamicist, September 5-8, 2005, Sopot, Poland, pp. 43-56.
47. Gupta, A., K.: Clean Energy Conversion from Wastes, Invited Keynote, Proc. 19th International Symposium on Combustion Processes, Wisla, Poland, August 30-September 2, 2005, pp. 41-62.
 48. Gupta, A. K.: Clean Energy Production from Wastes and Plastics, Plenary Lecture at 3rd Regional Conference on Energy Technology towards a Clean Environment, Cha-Am, Bangkok, Thailand, December 1-3, 2004.
 49. Gupta, A. K., and Archer, S: Confinement Effects on the Dynamics of Swirl Stabilized Gaseous Fuel Flames, Invited Lecture at National Heat Transfer Society of Japan Conference, Toyama, Japan, May 26-28, 2004.
 50. Gupta, A. K.: High Temperature Air Combustion Technology: Applications and Challenges, International Flame Research Foundation (IFRF) Topic Orientated Technical Meeting (TOTeM), Stockholm, Sweden, October 23-24, 2003.
 51. Gupta, A.K.: Thermal Destruction and Energy Recovery from Wastes, Invited Plenary lecture, Gifu Energy Symposium, Gifu, Japan, Oct. 2-3, 2003.
 52. Gupta, A. K.: High Temperature Air Combustion Technology, Invited Plenary Lecture, 18th International Symposium on Combustion, Polish Academy of Sciences, Ustron, Poland, Sep. 2-5, 2003.
 53. Gupta, A. K.: High Temperature Air Combustion Technology—Invited Review, AIAA/ASME/SAE/ASEE Joint Propulsion Conf., Huntsville, AL, July 20-23, 2003.
 54. Gupta, A. K.: Clean Energy from Wastes using High Temperature Air Combustion Technology, 2nd Regional Conference on Energy Technology Towards a Clean Environment (RCETCE), Phuket, Thailand, Feb. 12, 2003.
 55. Gupta, A. K.: Thermal Destruction Analysis of Wastes, National Technical University, Athens, Greece, November 26, 2002.
 56. Gupta, A. K.: Technological Evolution, Challenges and Future Prospects for High Temperature Air Combustion (HiTAC) Technology, National Technical University, Athens, Greece, November 25, 2002.
 57. Gupta, A. K.: Flame Length and Ignition Delay Time of Acetylene in High Temperature Combustion Air, 5th International Symposium on High Temperature Air Combustion and Gasification, Tokyo Institute of Technology, Japan, October 28-30, 2002. Also presented at 2nd AC Meeting, Stockholm, Sweden, November 11, 2002.
 58. Gupta, A. K.: High Temperature Air Combustion and Its Applications, Vanderbilt University, Nashville, TN, February 25, 2002.
 59. Gupta, A. K: High Temperature Air Combustion: Experiences for the USA-Japan Joint Energy Project, 4th International Symposium on High Temperature Air Combustion and Gasification, Rome, Italy, November 26-30, 2001.
 60. Gupta, A. K.: The Potential of High Temperature Air Combustion for Gas Turbines, Allstom Power Technology Ltd., Baden, Switzerland, April 2, 2001.
 61. Gupta, A.K.: Swirl Assisted Combustion, Invited Lecture at the University of Pennsylvania, PA, Department of Mechanical Engineering, January 25, 2001.
 62. Gupta, A. K.: Experiences from the USA-Japan Joint Energy Project during the 1990s, Forum on Development of Energy Sources which are Kind for Earth, Nagoya University, Japan, December 21, 2000.
 63. Gupta, A. K.: Experiences in the UK and USA, Lecture to the Undergraduate Students Classroom teaching at Nagoya University, Japan, December 20, 2000.
 64. Gupta, A. K.: Swirl in Combustion Flows, Invited Lecture at Rensselaer Polytechnic Institute, Troy, New York, Dept. of Mechanical and Aerospace Engineering, October 27,

2000.

65. Gupta, A.K.: High Temperature Air Combustion: Flame Characteristics, Challenges and Opportunities, Invited Lecture at the 12th International Symposium on Transport Phenomena, ISTP-12, Istanbul, Turkey, July 16-20, 2000.
66. Gupta, A. K.: Flame Characteristics with High Temperature Air Combustion and Future Challenges, Special Contribution at the Eco-Micro Energy System Symposium and Preliminary Discussion of IJPGC 2000, Hokkai Gakuen University, Sapporo, Japan, June 15-16, 2000, pp. 1-18.
67. Gupta, A. K.: Program and Plans for IJPGC 2000 to be held in Miami, Invited Presentation at the Eco-Micro Energy System Symposium and Pre-IJPGC 2000, Hokkai Gakuen University, Sapporo, Japan, June 15-16, 2000.
68. Gupta, A. K.: Flame Characteristics and Challenges with High Temperature Air Combustion, Invited lecture at International Symposium of High Temperature Air Combustion and Applications, May 16-18, 2000, Hsinchu, Taiwan, sponsored by The Taiwan Energy Commission, Taiwan Ministry of Economic Affairs and Industrial Technology Research Institute and The Combustion Institute of ROC.
69. Gupta, A. K.: Thermal Characteristics of Gaseous Fuel Flames using High Temperature Air, Invited lecture at the CREST 3rd International Symposium on High Temperature Air Combustion and Gasification, Yokohama, Japan, March 7-9, 2000.
70. Gupta, A.K.: Flame Characteristics and Challenges with High temperature Air Combustion, Invited Lecture, Invited Lecture, Proc. 2nd International Seminar on High Temperature Combustion in Industrial Furnaces, Stockholm, Sweden, January 17-18, 2000.
71. Gupta, A. K.: Advanced Combustion Research Studies at the UMD, Invited Lecture at Northeastern University, Department of Mechanical Engineering, Boston, MA, December 9, 1999.
72. Gupta, A.K. and Hasegawa, T.: High Temperature Air Combustion: Flame Characteristics, Challenges and Opportunities, Invited Lecture, Proc. of High Temperature Air Combustion Symposium, Sponsored by NEDO, JIFMA, JSUP and MITI, Tokyo, Japan, October, 1999, pp. 10-28.
73. Gupta, A.K.: Highly Preheated Air Combustion and Future Scope, Invited paper presented at Forum on High Performance Industrial Furnace and Boiler, Science Hall, Science Museum, Tokyo, Japan, Japan, March 8-9, 1999, sponsored by Japan Industrial Furnace Manufacturers Association (JIFMA), New Energy Development Organization (NEDO) and Ministry of International Trade and Industry (MITI).
74. Gupta, A.K.: Air Preheat and Oxygen Concentration Effects on the Thermal Behavior of Propane and Methane Diffusion Flames, Invited lecture at the 2nd International High Temperature Air Combustion (HTAC) Symposium, Sponsored by the Ministry of Economic Affairs, Energy Commission and Energy Resources Laboratories/ITRI, Kaohsiung, Taiwan, Jan. 20-22, 1999.
75. Gupta, A. K.: Flame Characteristics and Challenges with High Temperature Air Combustion, Invited Paper, Intl. MHD Conference, Beijing, China, October 13, 1999.
76. Gupta, A. K. and Hasegawa, T.: High Temperature Air Combustion: Flame Characteristics, Challenges and Opportunities, Invited paper, High Temperature Air Combustion Symposium, Beijing, China, October 18-19, 1999.
77. Gupta, A.K.: Thermal Destruction of Solid Wastes, Invited Keynote Lecture on December 2nd at the 2nd Intl. Symposium on Advanced Energy Conversion and Related Technologies (RAN98), Nagoya University, Nagoya, Japan, December 1-3, 1998, Proc. RAN-98 conference, pp. 108-115.

78. Gupta, A. K.: Combustion Research Activities at the University of Maryland, Tokyo Gas Company, Tokyo, Japan, December 3, 1998.
79. Gupta, A. K.: Combustion Instability in Swirl Combustors, Invited lecture Presented at Toshiba Corporation, Combustion Technology Division, Tsurumi-ku, Yokohama, Japan, December 4, 1998.
80. Gupta, A. K.: Fuel Property Effects on the Thermal Characteristics of High Temperature Air Flames, Invited presentation at the RG Meeting, Tokyo, Japan, June 2, 1998.
81. Gupta, A. K.: Role of Fuel Property on the Thermal Characteristics of High Temperature Air Combustion Flames, Invited Lecture at Toyota Central Research Laboratories, Toyota City, Japan, May 25, 1998.
82. Gupta, A. K.: Advantages of High Temperature Air Combustion, Invited Lecture at Mie University, May 29, 1998.
83. Danov, S. N., Gupta, A. K., and Arai, N: Influence of Imperfections in Working Media on Diesel Engine Indicator Process: Part 1-Theory, May 27, 1998, Japan 35th Heat Transfer Conference, Nagoya, Japan, May 27-29, 1998, pp. 263-264.
84. Danov, S.N., Gupta, A.K., and Arai, N.: Influence of Imperfections in Working Media on Diesel Engine Indicator Process: Part 2-Results, May 27, 1998, Japan 35th Heat transfer Conference, Nagoya, Japan, May 27-29, 1998, pp.265-266.
85. Danov, S.N., Arai, N. and Gupta, A.K.: Effect of Fuel Injection Rate on Heat transfer in a Diesel Engine During the Combustion Process, Japan 35th Heat transfer Conference, Nagoya University, Japan, May 27-29, 1998, pp.551-552.
86. Gupta, A. K.: Role of Swirl and Combustion Air Distribution in a Swirl Burner on the Flame Thermal and Combustion and Emission Characteristics, Invited Presentation at Concordia University, Mechanical Engineering Seminar Series, Montreal, Canada, October 10, 1997.
87. Gupta, A. K.: Experimental and Numerical Studies on Highly Preheated Air Combustion, Invited Presentation at the 9th RG Committee Meeting of the NEDO Project "New Industrial Furnaces of Higher Thermal Efficiency, NFK, Tokyo, Japan, January 13, 1997.
88. Gupta, A. K.: Numerical Simulation of Highly Preheated Air Combustion Using Methane as the Fuel, Invited Presentation at the 8th RG Meeting of the NEDO Project "New Industrial Furnaces of Higher Thermal Efficiency, Osaka University, June 19, 1996.
89. Gupta, A. K.: The Potential of Highly Preheated Air Combustion, Invited Lecture at the High Temperature Combustion for Industrial Processes, Sponsored by Jernkontoret and KTH Royal Institute of Technology, Stockholm, Sweden, June 6, 1996.
90. Gupta, A. K.: Challenges in High Temperature Air Combustion, Invited Presentation at the 7th RG Meeting of the National High Temperature Combustion Project, Tokyo, Japan, December 7, 1995.
91. Gupta, A. K.: Gas Turbine Combustion: Prospects and Challenges, Invited Lecture at International Symposium on Advanced energy Conversion and Related technologies, December 4-6, 1995, Proc. RAN 95, pp. 337-343.
92. Gupta, A. K.: Research and Development Needs for High Temperature Excess Enthalpy Combustion, Invited Presentation at the 6th RG Meeting of the National High Temperature Combustion Project, Tokyo Gas Company, Tokyo, Japan, May 26, 1995.
93. Gupta, A. K.: Gas Turbine Combustion—Prospects and Challenges, Invited Keynote Lecture at the Opening Ceremony of the 35th Israel Aerospace Sciences Conference, Tel-Aviv, Israel, February 15, 1995.
94. Gupta, A. K.: Basic Research Needs in Ultra High Preheated Air Temperature Combustion, Invited lecture at the 5th RG Meeting held at NFK on High Temperature Combustion National Project, Tokyo, Japan, December, 16, 1994.

95. Gupta, A. K.: Research and Development Needs for High Enthalpy Combustion, Invited lecture at 4th RG Meeting, May 14, 1994, Nagoya University, Nagoya, Japan.
96. Gupta, A. K.: Discrete Thermal Loading Technology Using High Enthalpy Combustion, Invited presentation at JSUP, Tokyo, Japan, May 17, 1994.
97. Gupta, A. K.: Combustion Diagnostics in Excess Enthalpy Flames, 3rd RG Meeting held at Hokkaido University, Sapporo, Japan, February 4, 1994.
98. Gupta, A. K.: Combustion Diagnostics in High Temperature Flames, Invited Presentation in Tokyo organized by JIFMA, NEDO and MITI, February 2, 1994.
99. Gupta, A. K.: Low NO_x Emission using a Multi-Annular Swirl Burner, Invited Lecture, Rolls Royce Plc., Derby, England, UK, September 6, 1991.
100. Gupta, A. K.: Non-Intrusive Combustion Diagnostics, Invited lecture at Concordia University, Montreal, Canada, September 13, 1991.
101. Gupta, A. K.: Multi-Annular Swirl Combustion, Invited Seminar in the Department Lecture Series at Department of Mechanical and Aerospace Engineering, Cornell University, Ithaca, NY, October 3, 1989.
102. Gupta, A. K.: Combustion in Swirl Flows, Invited Seminar at Cairo University, Cairo, Egypt, November, 22, 1989.

PUBLICATIONS

Journal Papers

1. Gupta, A. K., Syred, N. and Beér, J. M.: A Low-Noise Burner for Swirl Stabilized Natural Gas Flames, J. Inst. Fuel, March, 1973, p. 119-123.
2. Syred, N., Hanby, V. I. and Gupta, A. K.: Resonant Instabilities Generated by Swirl Burners, J. Inst. Fuel, December, 1973, p. 402-407.
3. Gupta, A. K., Syred, N. and Beér, J. M.: Die Verminderung der Schallabstrahlung von Drallbrennkammern durch stufenweise Verbrennung, Gas Wärme International, 23, No. 2, Feb. 1974, p. 39-45, also VDI-Bericht No. 211. [https://doi.org/10.1016/0010-2180\(74\)90057-1](https://doi.org/10.1016/0010-2180(74)90057-1)
4. Gupta, A. K., Syred, N. and Beér, J.M.: Fluctuating Temperature and Pressure Effects on the Noise Output of Swirl Burners, Proc. 15th Symposium (International) on Combustion, The Combustion Institute, 1975, p. 1367-1377. [https://doi.org/10.1016/S0082-0784\(75\)80396-1](https://doi.org/10.1016/S0082-0784(75)80396-1)
5. Syred, N., Gupta, A. K. and Beér, J. M.: Temperature and Density Gradient Changes Arising with the Processing Vortex Core and Vortex Breakdown in Swirl Burners, Proc. 15th Symposium (International) on Combustion, The Combustion Institute, 1975, p. 587-597. [https://doi.org/10.1016/S0082-0784\(75\)80330-4](https://doi.org/10.1016/S0082-0784(75)80330-4)
6. Gupta, A. K., Swithenbank, J. and Rock, G.: Combustor Modelling: Comparison of Some Theoretical and Experimental Results, 2nd European Symposium on Combustion, Orleans, France, Sep., 1975, p. 763-768.
7. Gupta, A. K., Tippetts, J. R. and Swithenbank, J.: Modulated Swirl Combustor, 2nd European Symposium on Combustion, Orleans, France, Sep., 1975, p. 690-696. INIST identifier:PASCAL7670157317, <http://pascal-francis.inist.fr/vibad/index.php?action=getRecordDetail&idt=PASCAL7670157317>
8. Gupta, A. K., Syred, N. and Beér, J. M.: Noise Sources in Swirl Burners, Applied Acoustics, 9, 1976, p. 151-163. [https://doi.org/10.1016/0003-682X\(76\)90006-2](https://doi.org/10.1016/0003-682X(76)90006-2)
9. Gupta, A. K., Beér, J. M. and Swithenbank, J.: Concentric Multi-Annular Swirl Burner: Stability Limits and Emission Characteristics, Proc. 16th Symposium (International) on Combustion, The Combustion Institute, 1977, p. 79-91. [https://doi.org/10.1016/S0082-0784\(77\)80315-9](https://doi.org/10.1016/S0082-0784(77)80315-9)
10. Gupta, A. K., Styles, A. C. and Beér, J. M.: The Potential Application of a Modulated Swirl Combustor for Clean Combustion of Liquid Fuel, Evaporation-Combustion of Fuels, Advances in Chemistry Series, 166, 1978, p. 93-110. DOI: 10.1021/ba-1978-0166.ch006
11. Gupta, A. K. and Beér, J. M.: On Combustion Generated Noise from Turbulent Diffusion Gaseous Flames, Applied Acoustics, 11, 1978, p. 35-55. <https://doi.org/10.1016/0003->

12. Gupta, A. K., Swithenbank, J. and Beér, J. M.: Modern Diagnostics for the Measurement of Fluctuating Quantities in Flames, J. Inst. F., Dec., 1977, p. 163-168. OSTI ID: 5092229
13. Gupta, A. K., Beér, J. M. and Swithenbank, J.: On the Operational Characteristics of a Multi-Annular Swirl Burner, Combustion Science and Technology, 17, Nos. 5 & 6, 1977, p. 119-214. [https://doi.org/10.1016/S0082-0784\(77\)80315-9](https://doi.org/10.1016/S0082-0784(77)80315-9)
14. Gupta, A. K.: Verbrennungsinstabilitäten in Drallflammen, Gas Wärme International, 28, 1, Jan., 1979, p. 56-66. ISSN: [0020-9384](#)
15. Gupta, A. K. and Rossi, I.: Vibration Analysis by Scattered Laser Light Speckle Metrology, J. Institute of Energy, England, Sep., 1981, p. 197-200.
17. Gupta, A. K., Beér, J. M., Louis, J. F., Busnaina, A. A. and Lilley, D. G.: Flow Aerodynamics Modeling of an MHD Swirl Combustor: Calculations and Experimental Verification, ASME J. Fluids Engineering, 104, September 1982, p. 385-392. <https://doi.org/10.1115/1.3241857>
18. Gupta, A. K., Khan, H., Beér, J. M. and Lilley, D. G.: Calculations of Magnetohydrodynamic Swirl Combustor Flowfields, Journal of Energy, 6, No. 5, September-October, 1982, p. 289-290. <https://doi.org/10.2514/3.62605>
19. Senkan, S. M., Robinson, J. M., and Gupta, A. K.: Sooting Limits of Chlorinated Hydrocarbon-Methane-Air Premixed Flames, Combustion and Flame, 49, 1983, p. 305-314. [https://doi.org/10.1016/0010-2180\(83\)90173-6](https://doi.org/10.1016/0010-2180(83)90173-6)
20. Beér, J. M., Jacques, M. T., Farmayan, W., Gupta, A. K., Hanson, S. and Rovesti, W. C.: Reduction of NO_x and Particulate Emission by Staged Combustion of Coal Liquid Fuels, Proc. 19th Symposium (Int'l.) on Combustion, The Combustion Institute, 1983, p. 1301-1309. [https://doi.org/10.1016/S0082-0784\(82\)80306-8](https://doi.org/10.1016/S0082-0784(82)80306-8)
21. Gupta, A. K. and Valeiras, H. A.: Burning Velocities of Chlorinated Hydrocarbon-Methane-Air Mixtures, Combustion and Flame, 55, No. 3, March 1984, p. 245-254. [https://doi.org/10.1016/0010-2180\(84\)90166-4](https://doi.org/10.1016/0010-2180(84)90166-4)
22. Valeiras, H., Gupta, A. K. and Senkan, S. M.: Laminar Burning Velocities of Chlorinated Hydrocarbon-Methane-Air Flames, Comb. Science and Tech., 36, 1984, p. 123-133. <https://doi.org/10.1080/00102208408923729>
23. Gupta, A. K. and Jackson, T.W.: Fouling and Particulate Deposition in Practical Systems, J. Inst. Energy, September 1985, p. 103-112. <https://doi.org/10.2514/6.1985-318>
24. Gupta, A. K. and diMarzo, M.: Computer Applications to Combustion Research, J. Chemical Engineering Communications, 39, 1985, p. 175-191.
25. Presser, C., Gupta, A. K., Santoro, R.J., and Semerjian, H. G.: Droplet Size

- Measurements in a Swirling Kerosene Spray Flame by Laser Light Scattering, ICLASS-85, The 3rd International Conference on Liquid Atomization and Spray Systems, Vol. 2, The Institute of Energy, London, 1985, p. VIIC/2/1-13.
26. Gupta, A. K.: Combustion of Chlorinated Hydrocarbons, J. Chemical Engineering Communications, 41, 1986, p. 1-21. <https://doi.org/10.1080/00986448608911709>
 27. Belousov, A. N., and Gupta, A. K.: PVC and Instability in Swirl Combustors, J. Chemical Engineering Communications, Vol. 47, 1987, p. 363-380. <https://doi.org/10.1080/00986448608911773>
 28. Gupta, A. K. and Lilley, D. G.: The Gray Areas in Combustion Research, J. Institute of Energy, September 1987, p. 108-120. <https://doi.org/10.2514/6.1986-1663>
 29. Chomiak, J., and Gupta, A. K.: Thermophoresis in Boundary Layer Flows, J. Aerosol Sci., Vol. 20, No. 1, 1989, p. 1-5. [https://doi.org/10.1016/0021-8502\(89\)90024-4](https://doi.org/10.1016/0021-8502(89)90024-4)
 30. Presser, C., Gupta, A.K., Semerjian, H.G. and Santoro, R.J.: Application of Laser Diagnostic Techniques for the Examination of Liquid Fuel Spray Structure, Chemical Engineering Communications, Vol. 90, 1990, p. 75-102.
 31. Presser, C., Gupta, A. K., Dobbins, R. A. and Semerjian, H. G.: Influence of Size Distribution on Droplet Mean Diameter Obtained by Ensemble Light Scattering, ASTM Publication: Liquid Size Measurement Techniques, Editors: Hirleman, Bachalo and Felton, Vol. 2, STP 1083, 1990, p. 93-111. <http://dx.doi.org/10.1520/stp25415s>
 32. Gupta, A. K., King, M. K., Daily, J., and Sabla, P.: Combustion Faces Environmental Challenges, Aerospace America, July, 1990, p. 52-55.
 33. Presser, C., Gupta, A. K., Avedisian, C. T., and Semerjian, H. G.: Fuel Property Effects on the Structure of Spray Flames, Proc. 23rd Symposium (International) on Combustion, The Combustion Institute, Pittsburgh, PA, 1990, p. 1361-1367. [https://doi.org/10.1016/S0082-0784\(06\)80401-7](https://doi.org/10.1016/S0082-0784(06)80401-7)
 34. Gupta, A. K., Ramavajjala, M., Chomiak, J., and Marchionna, N.: Burner Geometry Effects on Combustion and Emission Characteristics using a Variable Geometry Swirl Combustor, J. Propulsion and Power, Vol. 7, No. 4, July-August 1991, p. 473-480. <https://doi.org/10.2514/3.23351>
 35. Presser, C., Gupta, A. K., Avedisian, C.T. and Semerjian, H. G.: Combustion of Methanol and Methanol/Dodecanol Spray Flames, J. Propulsion and Power, 8, No. 3, May-June 1992, p. 553-559. <https://doi.org/10.2514/3.23513>
 36. Gupta, A. K. and Lilley, D. G.: The Environmental Challenge of Gas Turbines: A Review, J. Inst. Energy, September, 1992, p. 106-117.
 37. Presser, C., Gupta, A. K. and Semerjian, H. G.: Aerodynamic Characteristics of Swirling Spray Flames: Pressure-Jet Atomizer, Combustion and Flame, Vol. 92, 1993, p. 25-44. [https://doi.org/10.1016/0010-2180\(93\)90196-A](https://doi.org/10.1016/0010-2180(93)90196-A)

38. Lu, J., Gupta, A. K. and Keating, E. L.: Effect of I.C. Engine Operating Conditions on Combustion and Emission Characteristics, ASME J. Fluids Engineering, Vol. 115, No. 4, December, 1993, p. 694-701. <https://doi.org/10.1115/1.2910201>
39. Gupta, A. K. and Lilley, D. G.: Combustion and Environmental Challenges for Gas Turbines in the 1990s, J. Propulsion and Power, Vol. 10, No. 2, March-April, 1994. p. 137-147. <https://doi.org/10.2514/3.23722>
40. Presser, C., Gupta, A. K., Avedisian, C. T. and Semerjian, H. G.: Effect of Dodecanol Content on the Combustion Characteristics of Methanol Spray Flames, Atomization and Sprays, Vol. 4, 1994, p. 207-222. DOI: 10.1615/AtomizSpr.v4.i2.50
41. Presser, C., Gupta, A. K., Avedisian, C. T. and Semerjian, H. G.: Droplet Transport in a Swirl-Stabilized Spray Flame, J. Propulsion and Power, Vol. 10, No. 4, July-August 1994. <https://doi.org/10.2514/3.23773>
42. Hodges, J. T., Presser, C., Gupta, A. K. and Semerjian, H. G.: Analysis of Droplet Arrival Statistics in a Pressure-Atomized Spray Flames, Proc. 25th Symposium (Intl.) on Combustion, The Combustion Institute, Pittsburgh, PA, 1994, p. 353-361. [https://doi.org/10.1016/S0082-0784\(06\)80662-4](https://doi.org/10.1016/S0082-0784(06)80662-4)
43. Presser, C., Avedisian, C. T., Hodges, J. T. and Gupta, A. K.: Behavior of Droplets in Pressure-Atomized Fuel Sprays with Coflowing Air Swirl, AIAA Progress Series in Astronautics and Aeronautics, Recent Advances in Spray Combustion: Spray Combustion Measurements and Model Simulation, Vol. 171, Ed. K.K. Kuo, April, 1996, pp.31-61. <https://doi.org/10.2514/6.1993-132>
44. Gupta, A. K., Presser, C., Hodges, J. T. and Avedisian, C. T.: Role of Combustion on Droplet Transport in Pressure-Atomized Spray Flames, J. Propulsion and Power, Vol. 12, No. 3, March-April, 1996, pp. 543-553. <https://doi.org/10.2514/3.24068>
45. Aftel, R., Gupta, A. K., and Cook, C and Presser, C.: Gas Property Effects on Droplet Atomization and Combustion in an Air-Assist Atomizer, Proc. 26th Symposium (Intl.) on Combustion, The Combustion Institute, Pittsburgh, PA, 1996, pp. 1645-1651. [https://doi.org/10.1016/S0082-0784\(96\)80388-2](https://doi.org/10.1016/S0082-0784(96)80388-2)
46. Gupta, A. K.: Thermal Destruction of Solid Wastes, ASME J. Energy Resource Technology, Sep., 1996, Vol. 118, pp.187-192. <https://doi.org/10.1115/1.2793861>
47. Gupta, A. K., Ilanchezhian, E., and Keating, E. L.: Thermal Destruction Behavior of Plastic and Non-Plastic Wastes in a Laboratory Scale Facility, ASME J. Energy Resources Technology, Dec., 1996, Vol. 118, pp. 269-276. <https://doi.org/10.1115/1.2793873>
48. Gupta, A. K.: Gas Turbine Combustion: Prospects and Challenges, J. Energy Conversion and Management, Vol. 38, No. 10-13, 1997, pp.1311-1318. [https://doi.org/10.1016/S0196-8904\(96\)00160-4](https://doi.org/10.1016/S0196-8904(96)00160-4)

49. Gupta, A. K., Presser, C., Cook, C. and Avedisian, C. T.: Heat Transfer Effects on Droplet Vaporization by Air Preheating, J. Heat Transfer, Trans. ASME, Vol. 119, 1997, pp. 208. <https://doi.org/10.1115/1.2824207>
50. Gupta, A. K., Lewis, M. J. and Qi, S.: Effect of Swirl on Combustion Characteristics in Premixed Flames, J. of Engineering for Gas Turbines and Power, Tans. ASME, Vol. 120, July, 1998, pp. 488-494. <https://doi.org/10.1115/1.2818171>
51. Birouk, M. and Gupta, A. K.: Swirl Distribution Effects on the Structure of Lean Premixed Flames using PLIF Diagnostics, J. Heat Transfer, Trans. ASME, Vol. 120, August, 1998, p. 541. <https://doi.org/10.1115/1.2824304>
52. Ishiguro, T., Tsuge, S., Furuhashi, T., Kitagawa, K., Arai, N., Hasegawa, T., Tanaka, R. and Gupta, A. K.: Homogenization and Stabilization during Combustion of Hydrocarbons with Preheated Air, Proc.27th Symposium (Intl.) on Combustion, The Combustion Institute, Pittsburgh, PA, 1999, pp. 3205-3213. ISSN: 0082-0784.
53. Gupta, A. K. and Lilley, D. G.: Energy Recovery Opportunities from Wastes, J. Propulsion and Power, Vol. 15, No. 2, March/April 1999, pp. 175-180. <https://doi.org/10.2514/2.5439>
54. Gupta, A. K. and Muller, P.: Pyrolysis of Paper and Cardboard in Inert and Oxidative Environment, J. Propulsion and Power, Vol. 15, No. 2, March/April 1999, pp. 187-194. <https://doi.org/10.2514/2.5441>
55. Brasoveanu, D and Gupta, A. K.: Analysis of Gaseous Fuel and Air Mixing, Combustion Science and Tech., Vol. 141, 1999, pp. 111-121. <https://doi.org/10.2514/2.5648>
56. Gupta, A. K., Bolz, S. and Hasegawa, T.: Effect of Air Preheat and Oxygen Concentration on Flame Structure and Emission, Proc. ASME J. Energy Resources and Technology, Sep., Vol. 121, 1999, pp. 209-216. <https://dx.doi.org/10.1115/1.2795984>
57. Gupta, A. K.: Thermal Destruction of Cellulose and Surrogate Solid Wastes, J. Propulsion and Power, Vol. 16, No. 4, July-Aug., 2000, pp. 615-622. <https://doi.org/10.2514/2.5617>
58. Brasoveanu, D and Gupta, A. K.: Analysis of Gaseous Fuel and Air Mixing in Flames and flame Quenching, J. Propulsion and Power, Vol. 16, No. 5, September-October, 2000, pp. 829-836. <https://doi.org/10.2514/2.5648>
59. Gupta, A. K., Damm, T., Cook, C., Charagundla, S. R. and Presser, C.: Role of Oxygen-Enriched Atomization in Kerosene Spray Flames, J. Propulsion and Power, Vol. 16, No. 5, September-October, 2000, pp. 845-852. <https://doi.org/10.2514/2.5650>
60. Danov, S and Gupta, A. K.: Effect of Sauter Mean Diameter on the Combustion Related Parameters in a Large-Bore Marine Diesel Engine, J. Propulsion and Power, Vol. 16, No. 6, November-December, 2000, pp. 980-987. <https://doi.org/10.4271/1999-01-0224>

61. Brasoveanu, D and Gupta, A. K.: Maximum Mixing Times of Methane and Air, J. Propulsion and Power, Vol. 16, No. 6, November-December, 2000, pp. 956-963. <https://doi.org/10.2514/2.5696>
62. Brasoveanu, D. and Gupta, A. K.: Determination of Propane and Air Maximum Mixing Times, ASME J. Engineering for Gas Turbines and Power, Vol. 123, No. 1, January, 2001, pp. 226-230. <https://doi.org/10.1115/1.1338946>
63. Danov, S. and Gupta, A. K.: Influence of Imperfections in Working Media on Diesel Engine Indicator Process, ASME J. of Engineering for Gas Turbines and Power, Vol. 123, No. 1, January, 2001, pp. 231-239. <https://doi.org/10.1115/1.1339986>
64. Gupta, A. K, Lewis, M. and Dauer, M.: Swirl Effects on Combustion Characteristics of Premixed Flames, ASME J. of Engineering for Gas Turbines and Power, Vol. 123, No. 3, July, 2001, pp. 619-626. <https://doi.org/10.1115/1.1339987>
65. Brasoveanu, D. and Gupta, A. K.: Enhanced Methane-Air Mixing using Shock and Expansion Waves, ASME J. of Engineering for Gas Turbines and Power, Vol. 125, January 2003, pp. 332-335. <https://doi.org/10.1115/IMECE2000-1652>
66. Kitagawa, K., Kubota, M., Arai, N., and Gupta, A. K.: Profiling of REDOX Index during Combustion to Monitor C/C Composite Degradation in Flames, J. Propulsion and Power, Vol. 18, No. 2, March-April, 2002, pp. 372-375. <https://doi.org/10.2514/6.2001-1113>
67. Gupta, A. K.: Thermal Characteristics of Gaseous Fuel Flames using High Temperature Air, ASME J. Engineering for Gas Turbine and Power, Vol. 126, No. 1, January/February 2004, pp. 9-19. <https://doi.org/10.1115/1.1610009>
68. Ishiguro, T. Matsunami, A., Matsumoto, K. Kitagawa, K., Arai, N., and Gupta, A. K.: Mass Spectrometric Detection of Ionic and Neutral Species during Highly Preheated Air Combustion by Alkali Element Ion Attachment, ASME J. of Engineering for Gas Turbines and Power, Vol. 124, No. 5, September-October, 2002. pp. 749-756. <https://doi.org/10.1115/1.1473158>
69. Hasegawa, T., Mochida, S., and Gupta, A. K.: Development of Advanced Industrial Furnace using Highly Preheated Combustion Air, J. Propulsion and Power, Vol. 18, No. 2, March-April, 2002, pp. 233-239. <https://doi.org/10.2514/2.5943>
70. Gupta, A. K., Megerle, M., Charagundla, S. R. and Presser, C: Spray Flame Characteristics with Steam-Assisted Atomization, Chapter 16 in Advances in Chemical Propulsion Science and Technology, Editor: G. D. Roy, CRC Press, 2001, pp. 261-274.
71. Hino, Y., Sugiyama, S., Suzukawa, Y., Mori, I., Konishi, N., Ishiguro, T., Kitagawa, K. Arai, N. and Gupta, A. K.: 2-Dimensional Spectroscopic Observation of Non-luminous Flames in an Regenerative Industrial Furnace using Coal Gas, ASME J. of Engineering for Gas Turbine and Power, Vol. 126, No. 1, January/February, 2004, pp. 20-27. <https://doi.org/10.1115/1.1610010>

72. Birouk, M. and Gupta, A. K.: Structure of Lean Premixed Swirling Flames using PLIF Imaging, *J. Flow Visualization and Image Processing*, Vol. 8, No. 4, 2001, pp. 341-353. DOI: 10.1615/JFlowVisImageProc.v8.i4.30
73. Lois, E., Keating, E. L. and Gupta, A. K.: Fuels, Chapter in the Book “Encyclopedia of Physical Science and Technology”, 3rd Edition, Vol. 6, John Wiley, New York, 2002, pp. 275-314.
74. Kitagawa, K., Konishi, N., Arai, N., and Gupta, A. K.: Temporally Resolved 2-D Spectroscopic Study on the Effect of Highly Preheated and Low Oxygen Concentration Air on Combustion, *ASME J. of Engineering for Gas Turbine and Power*, Vol. 125, January 2003, pp. 326-331. <https://doi.org/10.1115/1.1520155>
75. Gupta, A. K. and Lilley, D. G.: Thermal Destruction of Wastes and Plastics, Chapter 15 in the Book entitled ‘Plastics and the Environment’, John Wiley & Sons, Inc., 2003, pp. 629-696. <https://doi.org/10.1002/0471721557.ch15>
76. Avedisian, C. T., Presser, C., and Gupta, A. K.: Observation of Soot in the Combustion of Methanol/Toluene Spray Flames, *J. Propulsion and Power*, Vol. 18, No. 4, 2002, pp. 781-787. <https://doi.org/10.2514/2.6000>
77. Jinno, D., Gupta, A. K. and Yoshikawa, K.: Determination of Chemical Kinetic Parameters of Surrogate Solid Wastes, *ASME J. Gas Turbine and Power*, Vol. 126, No. 4, September-October, 2004, pp. 685-692. <https://doi.org/10.1115/1.1772407>
78. Danov, S. and Gupta, A. K.: Modeling the Performance Characteristics of Diesel Engine Based Combined-Cycle Power Plants: Part 1 - Mathematical Model, *ASME J. Gas Turbine and Power*, Vol. 126, No. 1, Jan./Feb., 2004, pp. 28-34. <https://doi.org/10.1115/1.1635396>
79. Danov, S. and Gupta, A. K.: Modeling the Performance Characteristics of Diesel Engine Based Combined-Cycle Power Plants: Part 2 - Results and Applications, *ASME J. Gas Turbine and Power*, Vol. 126, No. 1, January/February, 2004, pp. 35-39. <https://doi.org/10.1115/1.1635397>
80. Yamamoto, T., Furuhashi, T., Arai, N. and Gupta, A. K.: Predictions of NO_x Emissions from High Temperature Gas Turbines: Numerical Simulation for Low-NO_x Combustion, *JSME International Journal, Series B*, Vol. 45, No. 2, 2002, pp. 221-230. <https://doi.org/10.1299/jsmeb.45.221>
81. Shimada, T., Akiyama, T., Fukushima, S., Mitsui, K., Jinno, M., Kitagawa, K., Arai, N. and Gupta, A. K.: Time Resolved Temperature Profiling of Flames with Highly Preheated/Low Oxygen Concentration Air in an Industrial Size Furnace, *ASME J. Engineering for Gas Turbine and Power*, Vol. 127, No. 3, July-August 2005, pp. 464-471.

82. Kitagawa, K., Itoh, S., Arai, N. and Gupta, A. K: Profiling of REDOX Atmosphere in Flames by Chemical Seeding/Planar Laser Induced Fluorescence (CS/PLIF), J. Propulsion and Power, Vol. 18, No. 2, March/April, 2002, pp. 372-375. <https://doi.org/10.1115/1.2179078>
83. Marshall, A. W., and Gupta, A. K.: Thermal Behavior of Co-Swirling Flames, Combustion Sci. & Tech., Vol. 176, 2004, pp. 437-451. <https://doi.org/10.1080/00102200490270148>
84. Tago, Y., Akimoto, F., Kitagawa, K., Arai, N., S. W. Churchill, and A. K. Gupta: Spectroscopic Measurements of Improved Radiative Heat Transfer from High Emissivity Materials by Two-Dimensional Two-Color Thermometry, ASME J. of Engineering for Gas Turbine and Power, Vol. 127, No. 4, July-August 2005, pp. 472-477. <https://doi.org/10.1115/1.1917889>
85. Shimada, T., Akiyama, T., Fukushima, S., Kitagawa, K., Arai, N., Konishi, N., Itoh, S., Terabayashi, T., Ohkuboto, Y, and Gupta, A. K.: Spectroscopic Observation of Heavy Oil Luminous Flames in an Industrial Regenerative Furnace, J. Propulsion and Power, Vol. 20, No. 5, September–October 2004, pp. 919-926. <https://doi.org/10.2514/1.9843>
86. Gupta, A. K., Lourenco, L., Linck, M., and Archer, S.: A New Method to Measure Flowfield in Luminous Spray Flames, J. Propulsion and Power, Vol. 20, No. 2, March/April 2004, pp. 369-372. <https://doi.org/10.2514/1.9264>
87. Jinno, D., Gupta, A. K., and Yoshikawa, K.: Thermal Decomposition Characteristics of Several Key Components in Solid Wastes, Environmental Engineering Science, Vol. 21, No. 1, 2004, pp. 65-72. <https://doi.org/10.1089/109287504322746767>
88. Gupta, A. K.: Thermal Characteristics of Gaseous Fuel Flames using High Temperature Air, ASME J. Eng., for Gas Turbines and Power, 126, 1, 2004, pp. 9-19. Also in Industrial Heating J., JIFMA, Japan, Vol. 41, No. 4, July 2004 (in Japanese), pp. 48-59. <https://doi.org/10.1115/1.1610009>
89. Gupta, A. K.: Flame Length and Ignition Delay during the Combustion of Acetylene in High Temperature Air (in Japanese), Industrial Heating Journal, JIFMA, Vol. 41, No. 5, September 2004, pp. 44-52.
90. Gupta, A. K.: Clean Energy Conversion from Waste Fuels using High Temperature air Combustion Technology, Asian Journal of Energy & Environment, Vol. 5, Issue 3, September 2004, pp. 223-266.
91. Mochida, S., Araake, T., Hasegawa, T. and Gupta, A. K.: Invisible HiTAC-flame Control for Improving Steam Reformer Heating Performance using Flame Ionization Monitoring Technique (in Japanese), Industrial Heating Journal, JIFMA, Vol. 42, No. 1, January 2005, pp. 24-35.

92. Mortberg, M., Blasiak, W. and Gupta, A. K.: Flow Phenomena of Normal and Low Calorific Value Fuels in High Temperature Air Combustion Conditions (in Japanese), Industrial Heating, Vol. 42, No. 1, 2005, pp. 45-54.
93. Linck, M., Habibzadeh, B. and Gupta, A. K.: Passive Control of Flow and Flame Structure in Spray Combustion, Chapter 32 in the book entitled 'Advances in Combustion and Noise Control, Cranfield University Press, Eds.: G. D. Roy, K. H. Yu, J. H. Whitelaw, and J. J. Witton, 2005, pp. 491-511. <https://doi.org/10.2514/1.15933>
94. Mortberg, M., Blasiak, W. and Gupta, A. K.: Combustion of Low Calorific Value Fuels in High Temperature and Oxygen Deficient Environment, Combustion Science and Technology (CST), Vol. 178, September 2006, pp. 1345-1372. <https://doi.org/10.1080/00102200500325280>
95. Gupta, A. K., Habibzadeh, B., Archer, S. and Linck, M.: Control of Flame Structure in Spray Combustion, Chapter 12 in the book "Combustion Processes in Propulsion", (Ed. G. D. Roy), Elsevier Publishers, pp. 129-137, 2006. <https://doi.org/10.1016/B978-012369394-5/50016-0>
96. Jangsawang, W., Klimanek, A. and Gupta, A. K.: Experiments for Enhanced Yield of Hydrogen from Wastes using High Temperature Steam Gasification, ASME J. Energy Resources Technology, Vol. 128, No. 3, September 2006, pp. 179-185. <https://doi.org/10.1115/1.2134733>
97. Katoh, A., Shinoda, M., Kitagawa, K. and Gupta, A. K.: Visualization of Steam Addition effect on OH Distribution in a Flame by Isotope Shift/Planar Laser-Induced Fluorescence (IS/PLIF) Spectroscopy, ASME J. Engineering for Gas Turbines and Power, Vol. 8, No. 1, January 2006, pp. 8-12. <https://doi.org/10.1115/1.2056528>
98. Katoh, A., Oyama, H., Kitagawa, K. and Gupta, A. K.: Visualization of OH radical distribution in a methane-hydrogen mixture flame by isotope shift/planar laser induced fluorescence spectroscopy, Combustion Science and Technology, Volume 178, issue 12, 2006, pp. 2061 – 2074. <https://doi.org/10.1080/00102200500536183>
99. Mortberg, M., Blasiak, W. and Gupta, A. K.: Experimental Investigation of Flow Phenomena of a Single Fuel Jet in Cross-Flow during Highly Preheated Air Combustion Conditions, J. Eng. for Gas Turbine and Power, Vol. 129, No. 2, April 2007, pp. 556-564. <https://doi.org/10.1115/1.2436558>
100. Gupta, A. K. and Jangsawang, W.: High Temperature Steam and Air Gasification of Biomass Waste Fuels, Industrial Heating Journal, (in Japanese), Vol. 43, No. 1, January 2006, pp. 43-54.
101. Oyama, H., Taki, H., Asai, H., Kitagawa, K. and Gupta, A. K.: Elemental Composition Profiling in a Methane-air Diffusion Flame by Laser-induced Plasma Spectroscopy

- (LIPS) with Chemical Seeding, Submitted to J. Propulsion and Power, 2005.
<https://doi.org/10.1109/IECEC.2002.1392056>
102. Archer, S, Gupta, A. K. and Kitagawa, K.: Spectroscopic Examination and Analysis of Unconfined Swirling Flames, J. Korean Physical Society, Vol. 49, No. 1, July 2006, pp. 298-304.
 103. Gautam, V. and Gupta, A. K.: Simulation of Flow and Mixing from a Cryogenic Rocket Injector, J. Propulsion and Power, Vol. 23, No. 1, January-February 2007, pp. 123-130.
<https://doi.org/10.2514/1.19731>
 104. Sangtongam, K. and Gupta, A. K. Clean Syngas Production from Biomass and Coal using High Temperature Steam Gasification, Industrial Heating Journal, JIFMA, Japan, Vol. 44, No. 4, July 2007, pp. 55-59.
 105. Jangsawang, W., Gupta, A. K., Kitagawa, K. and Lee, S. C.: High Temperature Steam and Air Gasification of Non-woody Biomass Wastes, As. J. Energy Env. 2007, 08(03), 601-609, Available online at www.asian-energy-journal.info
 106. Gupta, A. K. and Cichonski, W.: Ultrahigh Temperature Steam Gasification of Biomass and Wastes, J. Environmental Engineering Science, Vol. 24, No. 8, 2007, pp. 1179-1189.
<https://doi.org/10.1089/ees.2007.0120>
 107. Linck, M and Gupta, A. K.: Passive Control of Forced Combustion Instability in a Swirl-Stabilized Spray Combustor, J. Propulsion and Power, Vol. 23, No. 5, September-October, 2007, pp. 1113-1122. <https://doi.org/10.2514/1.15933>
 108. Korres, D. M., Karonis, D., Lois, E., Linck, M. B. and Gupta, A. K.: Aviation Fuel JP-5 and Biodiesel on a Diesel Engine, Fuel, Vol. 87, 2007, pp. 70-78.
<https://doi.org/10.1016/j.fuel.2007.04.004>
 109. Rafidi, N., Blasiak, W, and Gupta, A. K.: High Temperature Air Combustion Phenomena and Its Thermodynamics, J. Engineering for Gas Turbine and Power, Trans. of ASME, Vol. 130, No. 2, March, 2008, pp. 023001-8. <https://doi.org/10.1115/1.2795757>
 110. Sassi, M. and Gupta, A. K.: Sulfur Recovery from Acid Gases using the Claus Process and High Temperature Air Combustion (HiTAC) Technology, American Journal Environmental Sciences, Vol. 4, No. 5, 2008, pp. 502-511.
<http://dx.doi.org/10.3844/ajessp.2008.502.511>
 111. Gautam, V, Linck, M. and Gupta, A. K.: Observation of Unsteady Cryogenic Flows from a Characteristic Co-axial Rocket Injector, J. Propulsion and Power, Vol. 24, No. 4, July-August, 2008, pp. 889-891. <https://doi.org/10.2514/1.28922>

112. Sangtongam, K., Buczynski R., Gmurczyk, J. and Gupta, A. K.: Hydrogen Production by High Temperature Steam Gasification of Biomass and Coal, *J. Environmental Eng. Science*, Vol. 28, No. 4, April 2009, pp. 739-744. <https://doi.org/10.1089/ees.2008.0246>
113. Gautam, V. and Gupta, A. K.: Cryogenic Flow and Atomization from a Coaxial Injector, *J. Propulsion and Power*, Vol. 25, No. 1, Jan-Feb. 2009, pp. 33-39. <https://doi.org/10.2514/1.28921>
114. Kim, H. S., Arghode, V. K., and Gupta, A. K.: Combustion Characteristics of a Lean Premixed LPG-Air Combustor, *International J. Hydrogen Energy*, 34, 2009, pp. 1045-1053. <https://doi.org/10.1016/j.ijhydene.2008.10.036>
115. Kim, H. S., Arghode, V. K., Linck, M., and Gupta, A. K.: Hydrogen Addition Effects in a Confined Swirl Stabilized Methane-air Flame, *International J. Hydrogen Energy*, 34, 2009, pp. 1054-1062. <https://doi.org/10.1016/j.ijhydene.2008.10.034>
116. Kim, H. S., Arghode, V. K., and Gupta, A. K.: Flame Characteristics of Hydrogen Enriched Methane-Air Premixed Swirling Flames, *International J. Hydrogen Energy*, 34, 2009, pp. 1063-1073. <https://doi.org/10.2514/6.2007-602>
117. Ahmed, I. and Gupta, A. K.: Evolution of Syngas from Cardboard Gasification, *J. Applied Energy*, Volume 86, no. 9, September 2009, pp. 1732-1740. <https://doi.org/10.1016/j.apenergy.2008.11.018>
118. Ahmed, I. and Gupta, A. K.: Syngas Yield during Pyrolysis and Steam gasification of Paper, *J. Applied Energy*, 2009, Vol. 86, pp. 1813-1821. <https://dx.doi.org/10.1016/j.apenergy.2009.01.025>
119. Linck, M. and Gupta, A. K.: Twin-Fluid Atomization and Novel Lifted Swirl-Stabilized Spray Flames, *J. Propulsion and Power*, Vol. 25, No. 2, March-April 2009, pp. 343-356. <https://doi.org/10.2514/1.35723>
120. Linck, M, Gupta, A. K. and Yu, K.: Submerged Combustion and Two-phase Exhaust Jet, *J. Propulsion and Power*, Vol. 25, No. 2, March-April 2009, pp. 522-532. <https://doi.org/10.2514/6.2006-4142>
121. Ahmed, I., and Gupta, A. K.: Characteristics of Cardboard and Paper Gasification with CO₂, *J. Applied Energy*, *J. Applied Energy*, 2009, Vol. 86, pp. 2626-2634. <https://doi.org/10.1016/j.apenergy.2009.04.002>
122. Ahmed, I., and Gupta, A. K.: Hydrogen Production form Polystyrene Pyrolysis and Gasification: Characteristics and Kinetics, *Intl. J. of Hydrogen Energy*, Vol.34, Issue 15, Aug. 2009, Pages 6253-6264. <https://doi.org/10.1016/j.ijhydene.2009.05.046>

123. Ahmed, I., and Gupta, A. K.: Pyrolysis and Gasification of Food Waste: Syngas Characteristics and Char Gasification Kinetics, J. Applied Energy, Vol. 87, 2010, pp. 101-108. <https://doi.org/10.1016/j.apenergy.2009.08.032>
124. Arghode, V. and Gupta, A. K.: Effect of Flowfield on Colorless Distributed Combustion (CDC) for Gas Turbine Combustion, J. Applied Energy, Vol. 87, No. 5, May 2010, pp. 1631-1640. <http://dx.doi.org/10.1016/j.apenergy.2009.09.032>
125. Nishimura, T., Yamamoto, A., Matsumoto, K., Kitagawa, K., and Gupta, A. K.: Development of Laser Ionization Mass Spectrometer for Detection of Unstable Species in Flames, Microchemical Journal, Vol. 95, January 2010, pp. 50-56. <https://doi.org/10.1016/j.microc.2009.10.003>
126. Abdelhafez, A. and Gupta, A. K.: Effect of Swirl on Shock Structure in Underexpanded Supersonic Airflow, J. Propulsion and Power, Vol. 26, No. 2, March/April, 2010, pp. 215-229. <https://doi.org/10.2514/1.45716>
127. Arghode, V. and Gupta, A. K.: Development of High Intensity CDC Combustor for Gas Turbine Engines, J. Applied Energy, Vol. 88, November 2010, pp. 963-973. <https://doi.org/10.1016/j.apenergy.2010.07.038>
128. Arghode, V. and Gupta, A. K.: Investigation of Forward Flow Distributed Combustion for Gas Turbine Application, J. Applied Energy, Vol. 88, Issue 1, January 2011, pp. 29-40. <https://doi.org/10.1016/j.apenergy.2010.04.030>
129. Arghode, V. and Gupta, A. K.: Investigation of Reverse Flow Distributed Combustion for Gas Turbine Application, J. Applied Energy, Vol. 88, Issue 4, April 2011, pp. 1096-1104. <https://doi.org/10.1016/j.apenergy.2010.10.039>
130. Vijayan, V., and Gupta, A. K.: Combustion and Heat Transfer at Meso-scale with thermal recuperation, J. Applied Energy, Vol. 87, No. 8, August 2010, pp. 2628-2639. <https://doi.org/10.1016/j.apenergy.2010.03.011>
131. Vijayan, V. and Gupta, A. K.: Flame Dynamics of a Meso-scale Heat Recirculating Combustor, J. Applied Energy, Vol. 87, No. 12, December 2010, pp. 3718-3728. <https://doi.org/10.1016/j.apenergy.2010.06.003>
132. Vijayan, V. and Gupta, A. K.: Thermal Performance of a Meso scale Liquid Fuel Combustor, J. Applied Energy, Vol. 88, issue 7, 2011, pp. 2335-2343, <https://doi.org/10.1016/j.apenergy.2011.01.012>
133. Abdelhafez, A. and Gupta, A. K.: Swirling Airflow Through a Nozzle: Choking Criteria, J. Propulsion and Power, Vol. 26, No. 4, July-August, 2010, pp. 754-764. <https://doi.org/10.2514/1.47956>

134. Abdelhafez, A. and Gupta, A. K.: Effect of Swirl on Mixing in Underexpanded Supersonic Airflow, J. Propulsion and Power, Vol. 27, No. 1, January-February, 2011, pp. 117-131. <https://doi.org/10.2514/1.45716>
135. Ahmed, I. I., Nipattummakul, N. and Gupta A. K.: Characteristics of Syngas from Co-Gasification of Polyethylene and Woodchips, J. Applied Energy, Vol. 88, 2011, pp. 165-174. <https://dx.doi.org/10.1016/j.apenergy.2010.07.007>
136. Ahmed I. I. and Gupta A. K.: Kinetics of Woodchips Char Gasification with Steam and Carbon Dioxide, J. Applied Energy Vol. 88, 2011, pp. 1613–1619. <http://dx.doi.org/10.1016/j.apenergy.2010.11.007>
137. Nipattummakul, N., Ahmed I. I, Kerdsuwan, S. and Gupta, A. K.: High Temperature Steam Gasification of Wastewater Sludge, Applied Energy, Vol. 87, No. 12, December 2010, pp. 3729-3734. <http://dx.doi.org/10.1016/j.apenergy.2010.07.001>
138. Nipattummakul, N., Ahmed, I. I, Kerdsuwan, S., and Gupta A. K.: Hydrogen and Syngas Production from Sewage Sludge via Steam Gasification, Int. J. of Hydrogen Energy, Vol. 35, No. 21, Nov. 2010, pp. 11738-11745. <https://doi.org/10.1016/j.ijhydene.2010.08.032>
139. Molintas, H. and Gupta, A. K.: Kinetic Study for the Reduction of Residual Char Particles Using Oxygen and Air, Applied Energy J., Vol. 88, 2011, pp. 306–315. <https://doi.org/10.1016/j.apenergy.2010.06.027>
140. Nipattummakul, N., Ahmed I. I, Kerdsuwan, S. and Gupta A. K: Steam Gasification of Oil Palm Trunk Waste for Clean Syngas Production, Applied Energy J., 2012, pp. 778-782. <http://dx.doi.org/10.1016/j.apenergy.2011.08.026>
141. Nipattummakul, N., Ahmed I. I., Gupta A. K. and Kerdsuwan, S.: Hydrogen and Syngas Yield from Residual Branches of Oil Palm Tree using Steam Gasification, Intl. Journal of Hydrogen Energy, Vol. 36, February 2011, pp. 3835-3845. <https://doi.org/10.1016/j.ijhydene.2010.04.102>
142. Ahmed, I. and Gupta, A. K.: Characteristic of Hydrogen and Syngas Evolution from Gasification and Pyrolysis of Rubber, Intl. J. of Hydrogen Energy, Vol. 36, 2011, pp. 4340-4347. <https://doi.org/10.1016/j.ijhydene.2010.12.131>
143. Selim, H., AlShoaibi, A. and Gupta, A. K.: Effect of H₂S in Methane/Air Flames on Sulfur Chemistry and Products Speciation, Applied Energy J., Vol. 88, March 2011, pp. 2593–2600, <http://dx.doi.org/10.1016/j.apenergy.2011.02.032>
144. Selim, H., AlShoaibi, A. and Gupta, A. K.: Experimental Examination of Flame Chemistry in Hydrogen Sulfide-Based Flames, Applied Energy J., Vol. 88, No. 8, August 2011, pp. 2601–2611, <http://dx.doi.org/10.1016/j.apenergy.2011.02.029>

145. Arghode, V. and Gupta, A. K.: Hydrogen Addition Effects on Methane-Air Colorless Distributed Combustion Flames, Intl. Journal of Hydrogen Energy, Vol. 36, Issue 10, May 2011, pp. 6292-6302, <https://doi.org/10.1016/j.ijhydene.2011.02.028>
146. Alevanau, A., Ahmed, I., Gupta, A. K., Yang, W. and Blasiak, W.: Parameters of High Temperature Steam Gasification of Original and Pulverized Wood Pellets, Fuel Processing Technology, Vol. 92, 2011, pp. 2068-2074, <http://dx.doi.org/10.1016/j.fuproc.2011.06.009>
147. Khalil, A.E.E., and Gupta, A. K., Swirling Distributed Combustion for Clean Energy Conversion In Gas Turbine Applications, J. Applied Energy, Vol. 88, No. 11, Nov. 2011, pp. 3685-3693. <https://doi.org/10.1016/j.apenergy.2011.03.048>
148. Ahmed, I. and Gupta, A. K.: Particle Size, Porosity and Temperature Effects on Char Conversion, J. Applied Energy, Vol. 88, 2011, pp. 4667-4677. <http://dx.doi.org/10.1016/j.apenergy.2011.06.001>
149. Khalil, A.E.E. and Gupta, A. K: Distributed Swirl Combustion for Gas Turbine Application, J. Applied Energy, Vol. 88, No. 12, December 2011, pp. 4898-4907. <http://dx.doi.org/10.1016/j.apenergy.2011.06.051>
150. Shirsat, V and Gupta, A. K.: Performance Characteristics of Methanol and Kerosene Fuelled Meso-Scale Heat Recirculating Combustors, J. Applied Energy, Volume 88, Issue 12, 2011, pp. 5069-5082, <http://dx.doi.org/10.1016/j.apenergy.2011.07.019>
151. Shirsat, V. and Gupta, A. K.: A Review of Progress in Heat Recirculating Meso-Scale Combustors, J. Applied Energy, Vol. 88, Issue: 12, 2011, pp. 4294-4309, <http://dx.doi.org/10.1016/j.apenergy.2011.07.021>
152. Ahmed, I. and Gupta, A. K.: Sugarcane Bagasse Gasification: Global Reaction Mechanism of Syngas Evolution, J. Applied Energy, Vol. 91, pp. 75–81, 2012. <http://dx.doi.org/10.1016/j.apenergy.2011.07.001>
153. Arghode, V. and Gupta, A. K.: Jet Characteristics from a Submerged Combustion System, J. Applied Energy, Vol. 89, pp. 246-253, 2012. <http://dx.doi.org/10.1016/j.apenergy.2011.07.022>
154. Ahmed I. I, and Gupta A. K. and Jangsawang, W.: Energy recovery from Mangrove Pyrolysis and Gasification, J. Applied Energy, Vol. 91, 2012, pp. 173-179. <http://dx.doi.org/10.1016/j.apenergy.2011.08.028>
155. Arghode, V, Gupta, A. K. and Bryden, K.M.: High Intensity Colorless Distributed Combustion for Ultra Low Emissions and Enhanced Performance, J. Applied Energy, Vol. 92, 2012, pp. 822-830. <http://doi.org/10.1016/j.apenergy.2011.08.039>

156. Selim, H., AlShoaibi, A, and Gupta, A. K.: Fate of Sulfur with H₂S Injection in Methane/Air Flames, J. Applied Energy, Vol. 92, 2012, pp. 57–64. <http://dx.doi.org/10.1016/j.apenergy.2011.11.005>
157. Selim, H., Gupta, A. K. and Sassi, M.: Novel Error Propagation Approach for Reducing H₂S/O₂ Reaction Mechanism, J. Applied Energy, Vol. 93, May 2012, pp. 116-124. <http://dx.doi.org/10.1016/j.apenergy.2011.01.047>
158. Arghode, V, Khalil, A. E.E and Gupta, A. K.: Fuel Dilution and Liquid Fuel Operational Effects on Ultra-High Thermal Intensity Distributed Combustor, J. Applied Energy, Vol. 95, 2012, pp. 132–138. <http://dx.doi.org/10.1016/j.apenergy.2012.02.020>
159. Khalil, A., E. E., Arghode, V., Gupta, A. K. and Lee, S.C.: Low Calorific Value Fuelled Distributed Combustion with Swirl for Gas Turbine Applications J. Applied Energy, 98, 2012, pp. 69-78. <http://dx.doi.org/10.1016/j.apenergy.2012.02.074>
160. Selim, H., Gupta, A. K. and AlShoaibi, A.: Effect of CO₂ and N₂ Concentration in Acid Gas Stream on H₂S Combustion, J. Applied Energy, 98, 2012, pp. 53-58. <http://dx.doi.org/10.1016/j.apenergy.2012.02.072>
161. Khalil, A., Gupta, A. K. Bryden, K.M. and Lee, S. C.: Mixture Preparation Effects on Distributed Combustion for Gas Turbine Applications, ASME J. Energy Resources Technology, September 2012, Vol. 134, No.3, 032201-1. <https://doi.org/10.2514/6.2012-930>
162. Shirsat, V., and Gupta, A. K.: Extinction, Discharge, and Thrust Characteristics of Methanol fueled Meso-Scale Thrust Chamber, J. Applied Energy, Vol. 103, pp. 375-392, November 2012, <http://dx.doi.org/10.1016/j.apenergy.2012.09.058>
163. Pang, C., Yu, M., Zhang, X.M., Gupta, A. K. and Bryden, K.M.: Multifunctional Optical MEMS Sensor Platform for Wireless Optical Sensor Networks, Sensors and Actuators A: Physical, Vol. 188, 2012, pp. 471-480. <https://doi.org/10.1016/j.sna.2012.03.016>
164. Kajimoto, T. Yamada, E., Shinoda, M., Desmira, N., Kitagawa, K., and Gupta, A. K.: Analysis of Flame Structure by Isotope Shift-Planar Laser-Induced Fluorescence Spectrometry of Trace OH and OD Radicals, Microchemical Journal, Vol. 106, January 2013, pp. 334-339.
165. Ahmed, I. and Gupta, A. K.: Experiments and Stochastic Simulations of Lignite Coal during Pyrolysis and Gasification, J. Applied Energy, Vol. 102, February 2013, pp. 355–363. <http://dx.doi.org/10.1016/j.apenergy.2012.07.049>
166. Khalil, A. and Gupta, A. K.: Hydrogen Addition Effects on High Intensity Distributed Combustion, Applied Energy, Vol. 104, 2013, pp. 71-78. <http://dx.doi.org/10.1016/j.apenergy.2012.11.004>

167. Selim, H, A. K. Gupta, and Al Shoaibi, A.: Effect of Reaction Parameters on the Quality of Captured Sulfur in Claus Process, J. Applied Energy, Vol. 104, 2013, pp. 772-776. <http://dx.doi.org/10.1016/j.apenergy.2012.12.015>
168. Khalil, A, E. and Gupta, A. K.: Novel Mixing for Ultra-High Thermal Intensity Distributed Combustion, J. Applied Energy, Vol. 105, May 2013, pp. 327-334. <http://dx.doi.org/10.1016/j.apenergy.2012.12.071>
169. Singh, A., Yu, M., Bryden, M. and Gupta, A. K.: Thermo-acoustic Behavior of a Swirl Stabilized Diffusion Flame with Heterogeneous Sensors, J. Applied Energy, Vol. 106, June 2013, pp.1–16. <http://dx.doi.org/10.1016/j.apenergy.2013.01.044>
170. Shen, Q., Miyata, Y., Morita, S., Baba, Y., Kitagawa, K. and Gupta, A. K.: Visualization of Two-dimensional Excitation Temperatures in CH₄/N₂/Ar Plasmas for Preparation of Carbonaceous Materials, J. Energy Resources Technology (JERT), 135, No. 3, 034501, Sep 2013. <https://doi.org/10.1115/1.4023744>
171. Leyko, A and Gupta, A. K.: Temperature and Pressure Effects on Hydrogen Separation from Syngas, ASME J. Energy Resources Technology (JERT), Vol. 135, No. 3, 034502, Sep. 2013. <https://doi.org/10.1115/1.4024028>
172. Singh, A., Yu, M., Bryden, M. and Gupta, A. K.: Localization of Multiple Acoustic Sources in a Room Environment, J. Applied Energy, 109, September 2013, pp. 171-181. <http://dx.doi.org/10.1016/j.apenergy.2013.03.046>
173. Desmira, N., Nagasaka, T., Narukawa, K., Ishikawa, A., Kitagawa, K. and Gupta, A. K.: Spectroscopic Observation of Chemical Species from High Temperature Air Pulverized Coal Combustion, J. Resources Technology (JERT), 135, No. 3, 034503, Sep. 2013. <https://doi.org/10.1115/1.4024120>
174. Selim, H., Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Effect of Oxygen Enrichment on Acid Gas Combustion in Hydrogen/Air Flames under Claus Condition, J. Applied Energy, Vol. 109, 2013, pp.119–124. <http://dx.doi.org/10.1016/j.apenergy.2013.03.026>
175. Arghode, V. and Gupta, A.K.: Role of Thermal Intensity on Operational Characteristics of Ultra-Low Emission Colorless Distributed Combustion, J. Applied Energy, Vol. 111, November 2013, pp. 930-956. <http://dx.doi.org/10.1016/j.apenergy.2013.06.039>
176. Ibrahim, S., Al Shoaibi, A and Gupta, A. K.: Role of Toluene in Hydrogen Sulfide Combustion under Claus Condition, J. Applied Energy, Vol. 112, 2013, pp. 60-66. <http://dx.doi.org/10.1016/j.apenergy.2013.05.065>
177. Singh, A., Yu, M., Bryden, K.M. and Gupta, A. K.: Investigation of Noise Radiation from a Swirl Stabilized Diffusion Flame with an Array of Microphones, J. Applied Energy, Vol. 112, pp. 313-324, December 2013. <http://dx.doi.org/10.1016/j.apenergy.2013.06.034>

178. Pang, C., Yu, M., Gupta, A. K. and Bryden, K. M.: Investigation of Smart Multifunctional Optical Sensor Platform and its Application in Optical Sensor Networks, Smart Structures and Systems, Vol. 12, No. 1, 2013, pp. 023-039. <https://dx.doi.org/10.12989/sss.2013.12.1.023>
179. Khalil, A. and Gupta, A.K.: Fuel Flexible Distributed Combustion for Efficient and Clean Gas Turbine Engines, J. Applied Energy, 109, 2013, pp. 267–274. <https://dx.doi.org/10.1016/j.apenergy.2013.04.052>
180. Singh, A. V., Eshaghi, A., Yu M., Gupta A. K. and Bryden, K. M.: Simultaneous Time-Resolved Fluctuating Temperature and Acoustic Pressure Field Measurements in a Premixed Swirl Flame, J. Applied Energy, Vol. 115, pp. 116-127, Feb 2014, <https://dx.doi.org/10.1016/j.apenergy.2013.10.058>
181. Desmira, N., Kitagawa, K., Morita, S., and Gupta, A.K.: In-situ Spectroscopic Monitoring of Jatropha Oil Combustion Properties, Intl. J. Renewable Energy, Vol. 63, pp. 775-778, March 2014. <https://dx.doi.org/10.1016/j.renene.2013.10.020>
182. Khalil, A. and Gupta, A. K.: Swirling Flowfield for Colorless Distributed Combustion, J. Applied Energy, Vol. 113, pp. 208-219, 2014. <https://dx.doi.org/10.1016/j.apenergy.2013.07.029>
183. Khalil, A. and Gupta, A. K.: Clean Combustion in Gas Turbine Engines using Butyl Nonanoate Biofuel, Fuel, Vol. 116, pp. 522-528, 2014, <http://dx.doi.org/10.1016/j.fuel.2013.08.022>
184. Selim, H., Ibrahim, S. Al Shoaibi, A., and Gupta, A. K.: Investigation of Sulfur Chemistry with Acid Gas Addition in Hydrogen/Air Flames, J. Applied Energy, Vol. 113, pp. 1134-1140, 2014. <http://dx.doi.org/10.1016/j.apenergy.2013.08.054>
185. Ibrahim, S., Al Shoaibi, A., and Gupta, A. K.: Toluene Destruction in Thermal Stage of Claus Reactor with Oxygen Enriched Air, J. Applied Energy, Vol. 115, pp. 1-8, 2014. <http://dx.doi.org/10.1016/j.apenergy.2013.10.060>
186. Wierzbicki, T., Lee, I., and Gupta, A. K.: Performance of Synthetic Jet Fuels in a Meso-Scale Heat Recirculating Combustor, J. Applied Energy, Vol. 118, pp. 41-47, 2014. <http://dx.doi.org/10.1016/j.apenergy.2013.12.021>
187. Khalil, A., and Gupta, A.K.: Hydroxyl Radical Distribution in Distributed Reaction Combustion Condition, Journal Fuel, Vol. 122, pp. 28-35, 2014. <http://dx.doi.org/10.1016/j.fuel.2014.01.010>
188. Khalil, E. and Gupta, A. K.: Towards Distributed Combustion for Ultra Low Emission using Swirling and Non-Swirling Flowfields, J. Applied Energy, Vol. 121, pp. 132-139, 2014, <http://dx.doi.org/10.1016/j.apenergy.2014.01.081>

189. Khalil, A. and Gupta, A.K.: Dual Injection Distributed Combustion for Gas Turbine Application, ASME J. Energy Resources and Technology, March 2014, Vol. 136 / 011601-1. <https://doi.org/10.1115/1.4025020>
190. Khalil, A. and Gupta, A. K.: Velocity and Turbulence Effects on High Intensity Distributed Combustion, J Applied Energy, Vol. 125, 2014, pp. 1-9. <http://dx.doi.org/10.1016/j.apenergy.2013.11.078>
191. Oyama, H., Kayahana, J., Yatsu, S., Kitagawa, K., and Gupta, A. K.: Time-Resolved 2D Temperature Measurement from Acetylene-oxygen Flame Using Chemical Seeding Spectrocamera, J. Energy Resources Technology, March 2014, Vol. 136 / 011101-1. <https://doi.org/10.1115/1.4024916>
192. Desmira, N., Kitagawa, K. and Gupta, A.K.: OH and NO Distribution in Mixture of Waste Rice Bran and Octanol Oil Flames, J. Energy Resources Technology, March 2014, Vol. 136 / 014501-1. <https://doi.org/10.1115/1.4024860>
193. Peng, C., Yu, M., Gupta, A. K. and Bryden, K.M.: MEMS Fabry-Perot Sensor Interrogated by Optical System-On-A-Chip for Simultaneous Pressure and Temperature Sensing, Optics Express, Vol. 21(19), pp. 21829-21839, 2013. <https://doi.org/10.1364/OE.21.021829>
194. Gupta, A. K. and Kerdsuwan, S.: Efficient Energy Conversion of Wastes and Fuels in Power Systems, KMUTNBJ, Vol. 7, No. 2, 2014, pp. 1-26. <https://doi.org/10.14416/J.IJAST.2014.02.001>
195. Khalil, A. and Gupta, A. K.: Dual Injection Distributed Combustion for Stationary Gas Turbine Application, Energy Tech, July 2014, pp. 15-19. <https://doi.org/10.1115/1.4025020>
196. Taki, H., Asai, H, Kitagawa, K., Oyama, H. and Gupta, A. K.: Laser-induced Plasma Spectrometry with Chemical Seeding and Application to Flow Mixing Analysis in Methane-air Flames, J. Energy Resources Technology, 137(1), 012202-1, January 2015. <https://doi.org/10.1115/1.4027980>
197. Wierzbicki, T., Lee, I. and Gupta, A. K.: Combustion of Propane with Pt and Rh Catalysts in a Meso-scale Heat Recirculating Combustor, Applied Energy, Vol. 130, October 2014, pp. 350–356. <http://dx.doi.org/10.1016/j.apenergy.2014.05.069>
198. Khalil, A., and Gupta, A.K.: Impact of Pressure on High Intensity Colorless Distributed Combustion, Fuel Journal, Vol. 143, 1 March 2015, pp. 334–342. <https://doi.org/10.1016/j.fuel.2014.11.061>
199. Wierzbicki, T., Lee, I. and Gupta, A. K.: Rh Assisted Catalytic Oxidation of Jet Fuel Surrogates in a Meso-Scale Combustor, J. Applied Energy, Vol. 145, May 2015, pp. 1-7. <http://dx.doi.org/10.1016/j.apenergy.2015.01.097>

200. Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Effect of Benzene on Product Evolution in a H₂S/O₂ Flame under Claus Condition, *Applied Energy*, Vol. 145, May 2015, pp. 21-26. <http://dx.doi.org/10.1016/j.apenergy.2015.01.094>
201. Scenna, R., and Gupta, A. K.: Partial Oxidation of JP8 in a Distributed Reactor, *Fuel Processing Technology*, February 2015. Vol. 134, 2015, pp. 205-213. <http://dx.doi.org/10.1016/j.fuproc.2015.01.036>
202. Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Xylene Addition Effects to H₂S Combustion under Claus Condition, *Fuel Journal*, Vol. 150, 12 February 2015, pp. 1-7. <http://dx.doi.org/10.1016/j.fuel.2015.02.001>
203. Khalil, A. and Gupta, A. K.: Towards Ultra-Low Emission Distributed Combustion with Fuel Air Dilution, *Applied Energy*, Volume 148, 15 June 2015, pp. 187–195. <https://doi.org/10.1016/j.apenergy.2015.03.066>
204. Ibrahim, S., AlShoaibi, A. and Gupta, A. K.: Role of toluene to acid gas (H₂S and CO₂) combustion in H₂/O₂–N₂ flame under Claus condition, *Applied Energy*, Vol 149, 2015, pp. 62-68. <https://doi.org/10.1016/j.apenergy.2015.03.117>
205. Zhijian Zhang, Yongyao Chen, Haijun Liu, Hyungdae Bae, Douglas A. Olson, Ashwani K. Gupta, Miao Yu, On-Fiber Plasmonic Interferometer for Multi-Parameter Sensing, *Optics Express*, Vol. 23, No. 8, Apr 2015. <https://doi.org/10.1364/OE.23.010732>
206. Said, A.O., and Gupta, A.K.: Oxygen Enriched Air Effects on Combustion, Emission and Distributed Reaction, *ASME J. Energy Resources Technology*, Vol. 137, No. 4, 2015. pp. 042203, <https://doi.org/10.1115/1.4030400>
207. Gupta, A. K.: Efficient Wind Energy Conversion: Evolution to Modern Design, *ASME J. Energy Resources Technology*, JERT-14-1427; 137(5), 051201 (Sep 01, 2015) (10 pages). <https://doi.org/10.1115/1.4030109>
208. Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Xylene and H₂S Destruction in High Temperature Flames under Claus Condition, *Applied Energy*, Vol 154, 15 Sep 2015, Pages 352–360. <http://dx.doi.org/10.1016/j.apenergy.2015.05.017>
209. Khalil, A. and Gupta, A.K.: Impact of Internal Entrainment on High Intensity Distributed Combustion, *Applied Energy*, Vol. 156, Oct 2015, pp. 241–250. <http://dx.doi.org/10.1016/j.apenergy.2015.07.044>
210. Chardonneau, M., Ibrahim, S., Al Shoaibi, A. and Gupta A. K.: Role of Toluene and Carbon Dioxide on Thermal Stage Performance in a Claus Process, *Energy Procedia*, July 2015, (EGYPRO 25834). <https://doi.org/10.2514/6.2015-1887>
211. Groisil, M., Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Numerical Examination of Acid Gas for Syngas and Sulfur Recovery, *Energy Procedia*, July 2015, (EGYPRO 25833). <https://doi.org/10.1016/j.egypro.2015.07.628>

212. Khalil, A. and Gupta, A. K.: Thermal Field Investigation under Distributed Combustion Conditions, *J. Applied Energy*, Vol. 160, 2015, pp. 477-488.
<http://dx.doi.org/10.1016/j.apenergy.2015.09.058>
213. Zhang, Z., Chen, Y., Liu, H., Bae, H., Olson, D.A., Gupta, A.K., and Yu, M.: On Fiber Plasmonic Interferometer for Multi-parameter Sensing, *Optics Express*, 23, (8), pp. 10732-10740, 2015. doi:10.1364/oe.23.010732
214. Khalil, A., and Gupta, A. K.: Internal Entrainment Effects on High Intensity Distributed Combustion Using Non-Intrusive Diagnostics, *J. Applied Energy*, Vol. 160, Dec. 2015, pp. 467–476. <http://dx.doi.org/10.1016/j.apenergy.2015.09.053>
215. Scenna, R. and Gupta, A.K.: Partial Oxidation of JP8 in a Well Insulated Distributed Reactor, *J. Fuel Processing Technology*, Vol. 142, 2016, pp. 174-182.
<http://dx.doi.org/10.1016/j.fuproc.2015.10.014>.
216. Scenna, R and Gupta, A. K.: Preheat Effects on JP8 Reforming under Volume Distributed Reaction Conditions, *ASME J. Energy Resources & Technology*, Vol. 138, 032202-1 to 032202-6, May 2016. <http://dx.doi.org/10.1115/1.4032140>
217. Gupta, A. K. Ibrahim, S. and Al Shoaibi, A.: Advances in Sulfur Chemistry for Treatment of Acid Gases, *Progress in Energy and Combustion Science*, 54, May 2016, pp. 65–92. <http://dx.doi.org/10.1016/j.pecs.2015.11.001>
218. ElMelih, A., El Shoaibi, A. and Gupta, A.K.: Experimental Examination of Syngas Recovery from Acid Gases, *Applied Energy*, Vol. 164, February 2016, pp. 64-68.
<http://dx.doi.org/10.1016/j.apenergy.2015.11.025>
219. Khalil, A.E. and Gupta, A. K.: Fuel Property Effect on Distributed Combustion, *Fuel Journal*, 171, 2016, pp. 116-124. <http://dx.doi.org/10.1016/j.fuel.2015.12.068>
220. Schulze, S., Richter, A., Vascellari, M., Gupta A.K., Meyer, B., and Nikrityuk, P.A.: Novel Intrinsic-based Submodel for Char Particle Gasification in Entrained Flow Gasifiers: Model Development, Validation and Illustration, *J. Applied Energy*, 164, 2016, pp. 805-814. <http://dx.doi.org/10.1016/j.apenergy.2015.12.018>
221. Wierzbicki, T., Lee, I. and Gupta, A. K.: Recent Advances in Catalytic Oxidation and Reformation of Jet Fuels, *J. Applied Energy*, Vol. 165, 2016, pp. 904-918.
<http://dx.doi.org/10.1016/j.apenergy.2015.12.057>
222. Molintas, H. and Gupta, A. K.: Combustion of Spherically Shaped Large Wood Char Particles, *J. Fuel Processing Technology*, Vol. 148, July 2016, Pages 332–340.
<http://dx.doi.org/10.1016/j.fuproc.2016.02.029>
223. Said, A. O. Khalil, A.E. and Gupta, A. K.: Dual Location Fuel Injection Effects on

- Emissions and NO/OH Chemiluminescence in a High Intensity Combustor, ASME J. Energy Resources Tech., Vol. 138, no. 4, July 2016, 042208-1 -042208-7.
<http://dx.doi.org/10.1115/1.4032939>
224. Khalil, E. E. and Gupta, A. K.: On the Flame-Flow interaction under Distributed Combustion Conditions, Fuel Journal, Vol. 182, Oct. 2016, pp. 17–26.
<http://dx.doi.org/10.1016/j.fuel.2016.05.071>
225. ElMelih, A. M., Al Shoaibi, A. and Gupta, A. K.: Hydrogen Sulfide Reformation in the Presence of Methane, J. Applied Energy, Vol. 178, 2016, pp. 609-615.
<http://dx.doi.org/10.1016/j.apenergy.2016.06.053>
226. Khalil, A. E., Brooks, J. M. and Gupta, A. K.: Impact of Confinement on Flowfield of Swirl Flow Burners, Fuel Journal, Vol. 184, 15 November, 2016, pp.1-9.
<http://dx.doi.org/10.1016/j.fuel.2016.06.098>
227. Said, A. O. and Gupta, A. K.: Fuel Injection Effects on Distribution Reaction in a High Intensity Combustor, Fuel Journal, Vol. 186, 15 Dec 2016, Pages 248–260.
<http://dx.doi.org/10.1016/j.fuel.2016.08.070>
228. ElMelih, A. M., Al Shoaibi, A., and Gupta, A. K.: Production of Hydrogen from Hydrogen Sulfide in Presence of Methane, Intl. J. of Hydrogen Energy, Dec 3, 2016, pp. 1-10. <http://dx.doi.org/10.1016/j.ijhydene.2016.11.096>
229. Burra, K.G., Hussein, M.S., Amano, R. and Gupta, A. K.: Syngas Evolutionary Behavior during Chicken Manure Pyrolysis and Air Gasification, Applied Energy, Vol. 181, 2016, pp. 408-415. <http://dx.doi.org/10.1016/j.apenergy.2016.08.095>
230. Scenna, R. and Gupta, A. K.: Dry and Wet Partial Oxidation in a Distributed Reactor, Intl. J. Hydrogen Energy, Vol. 42, 2017, pp. 4102-4110.
<http://dx.doi.org/10.1016/j.ijhydene.2016.11.012>
231. Hussein, M. S. Burra, K. G., Amano, R. and Gupta, A. K.: Effect of Oxygen Addition in Steam Gasification of Chicken Manure, Fuel Journal, Vol. 189, 2017, pp. 428-435.
<http://dx.doi.org/10.1016/j.fuel.2016.11.005>
232. Khalil, A. E. and Gupta, A. K.: The Role of CO₂ on Oxy-Colorless Distributed Combustion, Applied Energy, Volume 188, February 15, 2017, pp. 466-474.
<http://dx.doi.org/10.1016/j.apenergy.2016.12.048>
233. Khalil, A. E. and Gupta, A. K.: Towards Colorless Distributed Combustion Regime, Fuel Journal, Vol 195, May 2017, pp. 113–122. <https://dx.doi.org/10.1016/j.fuel.2016.12.093>
234. Khalil, A. E. and Gupta, A. K.: Acoustic and Heat Release Signatures for Swirl Assisted Distributed Combustion, Applied Energy, Vol. 193, May 1, 2017, pp. 125–138.
<https://dx.doi.org/10.1016/j.apenergy.2017.02.030>

235. Hussein, M. S. Burra, K. G., Amano, R. and Gupta, A. K: Temperature and Gasifying Media Effects on Chicken Manure Pyrolysis and Gasification, Fuel Journal, Vol. 202, August 2017, pp. 36–45, <https://doi.org/10.1016/j.fuel.2017.04.017>
236. Y. Chen, H. Liu, Z. Zhang, A. Gupta, and M. Yu.: Planar photonic crystal based multifunctional sensors, Applied Optics 56 (6), 1775-1780, 2017. <https://doi.org/10.1364/AO.56.001775>
237. ElMelih, A. M. AlShoaibi, A. and Gupta, A. K.: Reformation of Hydrogen Sulfide to Hydrogen in the Presence of Xylene, Applied Energy, Vol. 203, October 2017, pp. 403-411. <https://dx.doi.org/10.1016/j.apenergy.2017.06.064>
238. Khalil, A. E. and Gupta, A.K.: Flame Fluctuations in Oxy-CO₂-Methane Mixtures in Swirl Assisted Distributed Combustion, Applied Energy, Vol. 204, pp. 303-317, Oct. 15, 2017. <https://doi.org/10.1016/j.apenergy.2017.07.037>
239. Burra, K. R. and Gupta, A.K.: Synergistic Effects in Steam Gasification of Combined Biomass and Plastic Waste Mixtures, Applied Energy, Vol. 211, pp. 230-236, 1 February 2018. <https://doi.org/10.1016/j.apenergy.2017.10.130>
240. Khalil, A. E and Gupta, A. K.: Fostering Distributed Combustion in a Swirl Burner using Liquid Fuels, Applied Energy, Volume 211, pp. 513-522, February 2018. <https://doi.org/10.1016/j.apenergy.2017.11.068>
241. Feser, J. S, Bassioni, G. and Gupta, A. K.: Effect of Naphthalene Addition to Ethanol in Distributed Combustion, Applied Energy, Volume 216, April 2018, pp. 1-7. <https://doi.org/10.1016/j.apenergy.2018.02.090>
242. Burra, K. and Gupta, A. K.: Kinetics of Synergistic Effects in Co-pyrolysis of Biomass with Plastic Wastes, Applied Energy, Vol. 220, 2018, pp. 408-418. <https://doi.org/10.1016/j.apenergy.2018.03.117>
243. Feser, J and Gupta, A. K.: Effect of CO₂/N₂ Dilution on Premixed Methane-Air Flame Stability under Strained Condition, ASME J. Energy Resources Technology, July 2018, Vol. 140, No. 7, / 072207-1 (5 pages), July 2018. <https://doi.org/10.1115/1.4039326>
244. Brooks, J. M., Gupta, A. K., Smith, M. S. and Marineau, E. C.: Particle Image Velocimetry Measurements of Mach 3 Turbulent Boundary Layers at Low Reynolds Numbers, Experiments in Fluids, 2018, 59:83, pp. 1-15. <https://doi.org/10.1007/s00348-018-2536-x>
245. Scenna, R. and Gupta, A. K.: The Influence of the Distributed Reaction Regime on Fuel Reforming Conditions, ASME J. Energy Resources Technology, Dec. 2018, Vol. 140, No. 12, 122002-1 (7 pages). <https://doi.org/10.1115/1.4040404>

246. Burra, K. R., Bassioni, G., and Gupta, A. K.: Catalytic Transformation of H₂S for Hydrogen Generation, Intl. Journal of Hydrogen Energy, Vol. 43, Issue 51, Dec. 2018, pp. 22852- 22860. <https://doi.org/10.1016/j.ijhydene.2018.10.164>
247. Younis, S. A., Ghobashy, M. M., Bassioni, G., and Gupta A. K.: Tailored Functionalized Polymer Nanoparticles using Gamma Radiation for Selected Adsorption of Barium and Strontium in Oilfield Wastewater, Arabian Journal of Chemistry, Available online 31 December 2018. <https://doi.org/10.1016/j.arabjc.2018.12.010>
248. Singh, P., Chuhan, S. R., Goel, V. and Gupta, A. K.: Impact of Biodiesel Blend on Lubricating Oil Degradation in a Compression Ignition Engine, J. Energy Resource Tech., Vol 141, March 2019, pp. 032203-1 - 032203-8. <https://doi:10.1115/1.4041411>
249. Singh, P., Chuhan, S. R., Goel, V. and Gupta, A. K.: Binary Biodiesel Blend Endurance Characteristics in a Compression Ignition Engine, J. Energy Resources Tech., Trans of ASME, Vol. 141, March 2019, pp. 032204-1 – 032204-11. <https://doi:10.1115/1.4041545>
250. Burra, K. and Gupta, A. K.: Modeling of Biomass Pyrolysis Kinetics Using Sequential Multi-Step Reaction Model, Fuel Journal, Vol. 237, 2019, pp. 1057-1067. <https://doi.org/10.1016/j.fuel.2018.09.097>
251. Hussein, A. M. A., Burra, K. G., Bassioni, G., Hammouda, R. M. and Gupta A. K.: Production of CO from CO₂ over Mixed-metal Oxides Derived from Layered-Double-Hydroxides, Applied Energy, Vol. 235, February 2019, pp. 1183-1191. <https://doi.org/10.1016/j.apenergy.2018.11.040>
252. Déparrois, N., Singh, P., Burra, K. G., and Gupta, A. K.: Syngas Production from Co-pyrolysis and Co-gasification of Polystyrene and Paper with CO₂, Applied Energy, Vol. 246, 2019, pp. 1-10. <https://doi.org/10.1016/j.apenergy.2019.04.013>
253. Karyeyen, S., Feser, J., and Gupta, A.K.: Hydrogen Concentration Effects on Swirl-Stabilized Oxy-Colorless Distributed Combustion, Fuel Journal, Vol. 253, 2019, pp. 772-780. <https://doi.org/10.1016/j.fuel.2019.05.008>
254. Wang, Z., Lei, T., Yan, X., Chen G., Xin, X., Yang, M., Guan Q., He, X., and Gupta, A.: Common Characteristics of Feedstock Stage in Life Cycle Assessments of Agricultural Residue-Based Biofuels, Fuel, Vol. 253, Oct. 2019, pp. 1256-1263. <https://doi.org/10.1016/j.fuel.2019.05.105>
255. Karyeyen, S., Feser, J., and Gupta, A. K.: Swirl Assisted Distributed Combustion Behavior Using Hydrogen-rich Gaseous Fuels, Applied Energy, Vol. 251, Oct. 2019, 113354. <https://doi.org/10.1016/j.apenergy.2019.113354>
256. Policella, M., Wang, Z., Burra, K.G., and Gupta, A. K.: Characteristics of Syngas from Pyrolysis and CO₂-assisted Gasification of Waste Tires, Applied Energy, Vol 254, Nov. 2019, 113678. <https://doi.org/10.1016/j.apenergy.2019.113678>

257. Singh, P., Déparrois, N., Burra, K. G., Bhattacharya S., and Gupta, A. K.: Energy Recovery from Cross-linked Polyethylene Wastes using Pyrolysis and CO₂ Assisted Gasification, *Applied Energy*, Vol. 254, November 2019, 113722.
<https://doi.org/10.1016/j.apenergy.2019.113722>
258. Wang, Z., Burra, K. G., Lei, T. Z., and Gupta, A. K.: Co-gasification Characteristics of Waste Tire and Pine Bark Mixtures in CO₂ Atmosphere, *Fuel Journal*, Vol. 257, Dec. 2019, 116025. <https://doi.org/10.1016/j.fuel.2019.116025>
259. Brooks, J. M., Gupta, A. K., Smith, M. S. and Marineau, E. C.: High-Speed Local Particle Injection for Particle Image Velocimetry, *AIAA Journal*, Vol. 57, No. 10, Oct. 2019. <https://doi.org/10.2514/1.J057654>
260. Singh, P., Chuhan, S. R., Goel, V. and Gupta, A. K.: Enhancing Diesel Engine Performance and Reducing Emissions Using Binary Biodiesel Fuel Blend, *ASME J. Energy Resources Technology*, Vol. 142 / 012201-1, January 2020.
<https://doi.org/10.1115/1.4044058>
261. Roy, R. and Gupta, A. K.: Flame Structure and Emission Signature in Distributed Combustion, *Fuel Journal*, Vol. 262, 116460, Feb. 2020.
<https://doi.org/10.1016/j.fuel.2019.116460>
262. Kim H-T, Pathak, M., Rajasekaran K., Gupta, A. K., and Yu, M.: Thermal Deformation of Gold Nanostructures and its Influence on Surface Plasmon Resonance Sensing, *Nanoscale Advances - Royal Society of Chemistry*, Vol. 2, 2020, pp. 1128-1137.
<https://doi.org/10.1039/C9NA00714H>
263. Wang, Z., Feser, J. S., Lei T., and Gupta, A. K.: Performance and Emissions of Camelina Oil Derived Jet Fuel Blends under Distributed Combustion Condition, *Fuel Journal*, Vol. 271, July 2020, pp. 117685. <https://doi.org/10.1016/j.fuel.2020.117685>
264. Feser, J. S., Karyeyen, S. and Gupta, A. K.: Flowfield Impact on Distributed Combustion in a Swirl Assisted Burner, *Fuel Journal*, Vol. 263, March 2020.
<https://doi.org/10.1016/j.fuel.2019.116643>
265. Karyeyen, S., Feser, J. S., Jahoda, E. and Gupta, A. K.: Development of Distributed Combustion Index from a Swirl-Assisted Burner, *Applied Energy*, Vol 268, 15 June 2020, 114967, <https://doi.org/10.1016/j.apenergy.2020.114967>
266. Wang, Z., Burra K. G., Zhang, M., Li, X., Policella, M., Lei, T., and Gupta, A. K.: Co-pyrolysis of Waste Tire and Pine Bark for Syngas and Char Production, *Fuel Journal*, Vol. 274, 15 August 2020, 117878. <https://doi.org/10.1016/j.fuel.2020.117878>
267. Wang, Z., Burra, K. G., and Gupta, A. K.: Syngas Evolution and Energy Efficiency in CO₂-Assisted Gasification of Pine Bark, *Applied Energy*, Vol 269, 1 July 2020, 114996.

<https://doi.org/10.1016/j.apenergy.2020.114996>

268. Wang, Z., Burra, K. G., Liu, X., Zhang, M., He, X., Lei T, Gupta, A. K.: CO₂ Assisted Gasification of Polyethylene Terephthalate with Focus on Syngas Evolution and Solid Yield, *Applied Energy*, Vol. 276, 15 Oct. 2020, 115508.
<https://doi.org/10.1016/j.apenergy.2020.115508>
269. Weber, R., Gupta, A. K and Mochida, S.: High Temperature Air Combustion (HiTAC): How it all started for Applications in Industrial Furnaces and Future Prospects, Review Paper, *Applied Energy*, Vol 278, Nov. 15, 2020, 115551.
<https://doi.org/10.1016/j.apenergy.2020.115551>
270. Liu, X., Burra, K. G., Wang, Z., Li, J., Che, D., and Gupta, A. K.: On Deconvolution for understanding Synergistic Effects in Co-pyrolysis of Pine Wood and Polystyrene, *Applied Energy*, Vol. 279, December 2020, 115811.
<https://doi.org/10.1016/j.apenergy.2020.115811>
271. Wang, Z., Burra, K. G., Liu, X., Li, X., Zhang, M., Lei, T., and Gupta, A. K: Synergistic Effect on CO₂ Assisted Gasification of Biomass and Plastics, *ASME J. Energy Resources Tech.*, Trans ASME, Vol. 143, Issue 3, 031901, March, 2021, pp.1-9.
<https://doi.org/10.1115/1.4048062>
272. Burra, K.G., Gupta, A. K. and Kerdsuwan, S: Isothermal Splitting of CO₂ to CO with Cobalt Ferrite Redox Looping, *ASME J. Energy Resources Tech.*, Trans ASME, Vol. 143, Issue 3, 032303-1, pp. 1-5, March 2021. <https://doi.org/10.1115/1.4048077>
273. Wang, Z., Liu, X., Burra, K. G., Li J., Zhang, M., Lei T, and Gupta, A. K.: Towards Enhanced Catalytic Reactivity in CO₂-assisted Gasification of Polypropylene, *Fuel Journal*, Vol 284, 119076, January 2021. <https://doi.org/10.1016/j.fuel.2020.119076>
274. Kerdsuwan, S., Laohalidanond, K. and Gupta A. K.: Upgrading of Refuse Derived Fuel Properties from Reclaimed Landfill using Torrefaction, *ASME J. Energy Resources Tech.*, Vol. 143, Issue 2, Feb. 2021, 021302 (9 pages), <https://doi.org/10.1115/1.4047979>
275. Li, J., Burra, K. G. Wang Z., Liu, X., Kerdsuwan, S. and Gupta, A. K.: Energy Recovery from Composite Acetate Polymer-biomass Wastes via Pyrolysis and CO₂-assisted Gasification, *ASME J. Energy Resources Tech.*, Trans ASME, Vol. 143, April, 2021, 042305-1, (12 pages), <https://doi.org/10.1115/1.4048245>
276. Feser, J. and Gupta, A. K.: Performance and Emissions of Drop-In Aviation Biofuels in a Lab Scale Gas Turbine Combustor, *ASME J. Energy Resources Tech*, Trans ASME, Vol. 143, April 2021, 042103-1 (6 pages), <https://doi.org/10.1115/1.4048243>
277. Laohalidanond, K., Kerdsuwan, S., Burra, K. G., Li, J., and Gupta, A. K.: Syngas Generation from Landfills Derived Torrefied Refuse Fuel using a Downdraft Gasifier, *ASME J. Energy Resources Tech.*, Trans ASME, Vol. 143, No. 5, 2021, 052102-1 (8

- pages). <https://doi.org/10.1115/1.4048523>
278. Li, J., Burra, K. G., Wang, Z., Liu, X., and Gupta, A. K.: Effect of Alkali and Alkaline Metals on Gas Formation Behavior and Kinetics during Pyrolysis of Pine Wood, Fuel Journal, Vol. 290, 15 April, 2021, 120081. <https://doi.org/10.1016/j.fuel.2020.120081>
 279. Li, J., Burra, K.G., Wang, Z., Liu, X and Gupta, A.K.: Co-gasification of High-Density Polyethylene and Pretreated Pine Wood, Applied Energy, 285, 116472, 2021. <https://doi.org/10.1016/j.apenergy.2021.116472>
 280. Wang, Z., Burra, K. G., Lei, T., and Gupta, A. K.: Co-pyrolysis of Waste Plastic and Solid Biomass for Synergistic Production of Biofuels and Chemicals-A Review, Progress in Energy and Combustion Science, Vol. 84, May 2021, 100899. <https://doi.org/10.1016/j.pecs.2020.100899>
 281. Liu, X., Burra, K. G., Wang, Z., Li, J., Che, D., and Gupta, A. K.: Syngas Characteristics from Catalytic Gasification of Polystyrene and Pinewood in CO₂ Atmosphere, ASME, J. Energy Resources Tech., 2021, Vol. 143, no. 5 / 052304-1. (10 pages). <https://doi.org/10.1115/1.4049587>
 282. Liu, X., Burra, K. G., Wang, Z., Li, J., Che, D., and Gupta, A. K.: Influence of Char Intermediates on Synergistic Effects during co-pyrolysis of Pine Wood and Polycarbonate, ASME J. Energy Resources Tech., Trans ASME, May 2021, Vol. 143, No. 5 / 052107-1 (8 pages). <https://doi.org/10.1115/1.4049464>
 283. Liu, X., Burra, K., Wang, Z., Li, J and A. K. Gupta, A. K.: Towards Enhanced Understanding of Synergistic Effects in Co-pyrolysis of Pinewood and Polycarbonate, Applied Energy, Vol. 289, 1 May 2021, 116662. <https://doi.org/10.1016/j.apenergy.2021.116662>
 284. Roy, R. and Gupta, A. K.: Experimental Investigation of Flame Fluctuation Reduction in Distributed Combustion, Experiments in Fluids, 62, No. 62, March 2021. <https://doi.org/10.1007/s00348-021-03168-w>
 285. Burra, K.G., Daristotle N., and Gupta, A. K.: Carbonization of Cellulose in Supercritical CO₂ for Value-Added Carbon, ASME, J. Energy Resources Tech., Transactions of the ASME, Vol. 143, July 2021, / 072105-1 (10 pages). <https://doi.org/10.1115/1.4050634>
 286. Chen, Z., Wang Z., Lei T., and Gupta A. K.: Physical-Chemical Properties and Engine Performance of Blends of Biofuels with Gasoline, J. Biobased Materials and Bioenergy, Vol. 15, No. 2, pp. 163-170, 2021. <https://doi:10.1166/jbmb.2021.2050>
 287. Burra, K. G., Liu X., Wang Z., Li J., Che D., and Gupta, A. K: Quantifying the Sources of Synergistic Effects in Co-pyrolysis of Pinewood and Polystyrene, Applied Energy, Vol. 302 (5), November 2021, p. 117562. <https://doi:10.1016/j.apenergy.2021.117562>

288. Molintas, H. J. and Gupta, A. K.: Combustion of Flat Shaped Char Particles with Oxygen, ASME J. Energy Resources Technology, Trans ASME, Feb 2022, 144(2): 022302 (12 pages), <https://doi.org/10.1115/1.4050907>
289. Li, J., Burra, K. G., Wang, Z., Liu, X., and Gupta, A. K.: Effect of Acid and Alkali Pre-treatment on CO₂ Assisted Gasification of Pine Wood, ASME J. Energy Resources Technology, Trans ASME, JERT, Vol. 144(2): Feb 2022, 022306 (9 pages). <https://DOI:10.1115/1.4051145>
290. Roy, R., and Gupta, A. K.: Data-driven Prediction of Flame Temperature and Pollutant Emission in Distributed Combustion, Applied Energy J., Vol. 310, March 15, 2022, p. 118502. <https://doi.org/10.1016/j.apenergy.2021.118502>
291. Yang, B., Hu, L. Ping, W., Roy, R. and Gupta A. K.: Boron-Nitride Nanosheet Based Thermal Barrier Coating for Micro-combustor Performance Improvement, ASME J. Energy Resources Technol. Vol. 144, No. 6, June 2022, p. 062106 (4 pages), <https://doi.org/10.1115/1.4052734>
292. Li, J., Burra K. G., Wang, Z., Liu, X., and Gupta, A. K.: Syngas Evolution and Energy Efficiency in CO₂ Assisted Gasification of ion-exchanged Pine wood, Fuel Journal, Vol. 317, p. 123549, June, 2022. <https://doi.org/10.1016/j.fuel.2022.123549>
293. Roy, R. and Gupta, A. K.: Measurement of Lean Blowoff Limits in Swirl-stabilized Distributed Combustion with Varying Heat Release Intensities, ASME J. Energy Resources Tech., Vol. 144, no. 8, Aug. 2022. 082301 (8 pages). doi: <https://doi.org/10.1115/1.4052795>
294. Roy, R., and Gupta, A. K.: Recognition of Distributed Combustion Regime from Deep Learning, ASME J. Energy Resources Tech. Vol. 144, no. 9, Sep. 2022, p. 092303 (5 pages). doi: <https://doi.org/10.1115/1.4053616>.
295. Cao, Q., Lu W., Li, J., Burra, K. R. G., and Gupta, A. K.: Energy Recovery of Expired Pistachios from Pyrolysis and CO₂-assisted Gasification, ASME J. Energy Resources Tech., Trans ASME, January 2023, 145(1): 012102. <https://doi.org/10.1115/1.4054788>
296. Burra, K. G. Fernández, Inés, Castaldi, M., Goff, S., and Gupta, A. K.: Effect of Gypsum Waste Inclusion on Gasification of Municipal Solid Waste, ASME J. Energy Resources Tech., Trans ASME, Feb 2023, 145(2): 021701 (8 pages). <https://doi.org/10.1115/1.4054825>
297. Zhiwei Wang, Mengge Wu, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Kiran G. Burra, Shuaihua Guo, Yan Chen, Shuhua Yang, Zaifeng Li, Tingzhou Lei, and Ashwani K. Gupta, Co-pyrolysis Characteristics of Waste Tire and Maize Stalk using TGA, FTIR and Py-GC/MS Analysis, Fuel Journal, 337, 2023, p. 127206, <https://doi.org/10.1016/j.fuel.2022.127206>

298. Li J., Ye X., Burra K. G., Lu W., Wang Z., Liu X. and Gupta A. K.: Synergistic Effects During Co-pyrolysis and Co-gasification of Polypropylene and Polystyrene, *Applied Energy*, 336, April 15, 2023, 120750, <https://doi.org/10.1016/j.apenergy.2023.120750>
299. Burra, K.G., Selim, O. M., Amano, R. S. and Gupta, A. K.: Synergy in Syngas Yield from Co-pyrolysis of Cow and Chicken Manures, *ASME J. Energy Resources Tech.*, Jun 2023, 145(6): 061303 (7 pages), <https://doi.org/10.1115/1.4056563>
300. Roy, R., Nguyen, K. and Gupta, A. K.: Performance Enhancement of Swirl-assisted Distributed Combustion with Hydrogen-enriched Methane, *Applied Energy*, Vol. 338, 15 May 2023, p. 120919. <https://doi.org/10.1016/j.apenergy.2023.120919>
301. Zhiwei Wang, Yan Chen, Gaofeng Chen, Tanglei Sun, Mengju Zhang, Qun Wang, Mengge Wu, Shuaihua Guo, Shuhua Yang, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta, Products Distribution and Synergistic Effects Analysis during Co-Pyrolysis of Agricultural Residues and Waste Tire Using Gas Chromatography/Mass Spectrometry, *ASME J. Energy Resour Tech.*, *J. Energy Resour. Technol.* Aug 2023, 145(8): 081501 (8 pages), <https://doi.org/10.1115/1.4056940>
302. Mavukwana, A. E, Burra, K. G., Sempuga, C., Castaldi, M., and Gupta, A. K.: Sulfur Transformation and Metals Recovery during Co-gasification of Municipal Solid Waste and Gypsum, *ASME J. Energy Resources Technology*, *J. Energy Resour. Technol.* J. Energy Resour. Technol. Oct. 2023, 145(10): 101501 (11 pages), <https://doi.org/10.1115/1.4062164>
303. Zhiwei Wang, Shuaihua Guo, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Yan Chen, Mengge Wu, Xiaofei Xin, Shuhua Yang, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta, Synergistic Effects and Kinetics in Co-pyrolysis of Waste Tire with Five Agricultural Residues using Thermogravimetric Analysis, *ASME JERT*, *J. Energy Resour. Technol.* Dec. 2023, 145(12): 121501 (11 pages). <https://doi.org/10.1115/1.4062826>
304. Shuaihua Guo, Zhiwei Wang, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Qun Wang, Yan Chen, Mengge Wu, Tingzhou Lei, Zaifeng Li, Shuhua Yang, Kiran G. Burra, and Ashwani K. Gupta, Co-pyrolysis Characteristics of Forestry and Agricultural Residues and Waste Plastics: Thermal Decomposition and Products Distribution, *J. Process Safety and Environmental Protection*, Vol. 177, Sep. 2023, pp. 380-390. <https://doi.org/10.1016/j.psep.2023.06.084>
305. Mavukwana, A. E, Burra, K. G., Sempuga, C., Castaldi, M., and Gupta, A. K.: Effect of Spent FCC Fluid Catalytic Cracking (FCC) Catalyst on Syngas Production from Pyrolysis and CO₂-assisted Gasification of Waste Tires, *Fuel Journal*, Vol. 355, Issue 1, Jan. 2024, 129446, <https://doi.org/10.1016/j.fuel.2023.129446>
306. Roy, R., Nguyen, K., and Gupta, A. K.: Comparison of Non-reactive Flow fields in Conventional Swirl-air Combustion and Swirl Distributed Combustion, *J. Experimental*

307. Mengge Wu, Zhiwei Wang, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Qun Wang, Huina Zhu, Shuaihua Guo, Yan Chen, Youjian Zhu, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta: Synergistic Effects and Products Distribution During Co-pyrolysis of Biomass and Plastics, J. of the Energy Institute, Vol. 111, Dec. 2023, 101392 <https://doi.org/10.1016/j.joei.2023.101392>
308. Wei Lin Ng, Adrian Chun Minh Loy, David McManus, Ashwani K. Gupta, Ajit K Sarmah, and Sankar Bhattacharya: Exploring Renewable Routes and Catalytic Systems for Ethylene Carbonate Synthesis: Sustainable Routes for a Better Tomorrow, ACS Sustainable Chemistry and Engineering, 11, 39, pp. 14287–14307 Sept. 2023, <https://doi.org/10.1021/acssuschemeng.3c03947>
309. Mavukwana, A. E, Burra, K. G., Sempuga, C., Castaldi, M., and Gupta, A. K.: Effect of Gypsum Waste Inclusion on Syngas Production During CO₂-assisted Gasification of Waste Tires, J. Waste Management, Vol. 171, Nov. 2023, pp. 375-381, <https://doi.org/10.1016/j.wasman.2023.09.022>
310. Burra, K. G, Sahin, M., Zheng, Y., and Gupta, A. K.: Near-Critical CO₂-Assisted Liquefaction-Extraction of Biomass and Wastes to Fuels and Value-Added Products, ASME J. Energy Resour. Technol, JERT. Jan 2024, 146(1): 011801 (9 pages), <https://doi.org/10.1115/1.4063813>
311. Yan Chen, Zhiwei Wang, Gaofeng Chen, Qun Wang, Tanglei Sun, Mengju Zhang, Zhimin Du, Mengge Wu, Shuaihua Guo, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta: Synergistic Effects and Products Yield Analyses Based on Co-pyrolysis of Poplar Tree and Rape Stalks with Polyethylene Terephthalate and Polypropylene, J. of the Inst. of Energy, Vol. 112, Feb. 2024, 101461, <https://doi.org/10.1016/j.joei.2023.101461>
312. Salvo, E., Sahin, M., and Gupta, A. K.: Theoretical Evaluation of YSZ and Alumina-YSZ Thermal Barrier Coatings in a Hydrogen Enriched Combustion Environment, ASME J. Energy Resour. Technol, Vol. 146, May 2024, pp. 051901-1 (5 pages), <https://doi.org/10.1115/1.4064711>
313. Burra, K. G, Fernández, I., Castaldi, M. J., and Gupta, A. K.: Gasification of Municipal Solid Wastes with Gypsum Wastes Under Different Gasifying Environments, Submitted to Applied Energy, September 2023.
314. Xinhao Ye, Li Jinhua, Kiran G. Burra, Zhiwei Wang, Xuan Liu, and Ashwani K. Gupta: Effects of different kinds of Na solutions on the biomass pyrolysis and CO₂-assisted gasification behavior, Fuel No. JFUE-D-24-02298 Submitted, Feb 2025.
315. Aktas, F., Burra, K.G, and Gupta, A. K.: Temperature and Positioning Effects of Spent Fluid Catalytic Cracking Catalyst in the Reactor on Pyrolysis of Polyethylene

Terephthalate, Fuel J., Paper no. JFUE-D-24-01887, Submitted, February 11, 2024.

316. Zhiwei Wang, Shuaihua Guo, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Qun Wang, Zhimin Du, Shuhua Yang, Yan Chen, Mengge Wu, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta, Synergistic effect and product distribution on co-pyrolysis of waste tires with agricultural and forestry residues, J. Industrial Crops and Products, submitted, August 2023
317. Zhiwei Wang, Shuaihua Guo, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Yan Chen, Mengge Wu, Xiaofei Xin, Shuhua Yang, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta, Synergistic Effects and Kinetics in Co-pyrolysis of Waste Tire with Five Different Agricultural Residues using Thermogravimetric Analysis, Submitted to J. Analytical and Applied Pyrolysis, Paper JAAP-D-23-00058, May 2023.

Conference Papers

1. Gupta, A. K., Swithenbank, J. and Beér, J. M.: The Potential Application of a Multi-Annular Swirl Burner to a Gas Turbine Combustor, Aeronautical Research Council (A.R.C.) Comb. Sub-Committee, A.R.C. 36468, Comb. 186, December, 1975. DOI: [10.1016/S0082-0784\(77\)80315-9](https://doi.org/10.1016/S0082-0784(77)80315-9)
2. Gupta, A. K., Swithenbank, J. and Thompson, D.: Measurements of Fluctuating Temperatures, Pressures, Velocity, and Concentration, Aeronautical Research Council (A.R.C.) Meeting on Measurement of Fluctuating Quantities and their Interpretation, London, A.R.C. Comb Sub-Committee, A.R.C. 36674, Comb. 204, April 1976. OSTI ID: 5092229 Ref no.: ERA-03-035785; EDB-78-069889
3. Gupta, A. K., Styles, A. C. and Beér, J. M.: The Potential Application of a Modulated Swirl Combustor to Clean Combustion of Liquid Fuel, Symposium on Evaporation-Combustion of Fuel Droplets, ACS, San Francisco, CA, August-September, 1976. DOI: [10.1021/ba-1978-0166.ch006](https://doi.org/10.1021/ba-1978-0166.ch006)
4. Gupta, A. K. and Beér, J. M.: Noise Emission from Open Turbulent Methane-Air Diffusion Flames. Proc. Internoise 77, 1977 International Noise Control Engineering Conference, ETH, Zurich, March 1977, p. B.229. [https://doi.org/10.1016/0003-682X\(78\)90020-8](https://doi.org/10.1016/0003-682X(78)90020-8).
5. Gupta, A. K., Taylor, D. S. and Beér, J. M.: Investigation of Combustion Instabilities in Swirling Flames Using Real Time LDV., Proc. Symposium on Turbulent Shear Flows, Pennsylvania State University, April, 1977, p. 7.11-7.17. [https://doi.org/10.1016/0010-2180\(74\)90057-1](https://doi.org/10.1016/0010-2180(74)90057-1), OSTI ID: 6212911
6. Gupta, A. K. and Beér, J. M.: Noise Emission from Open Turbulent Flames: Comparison

- of Theory with Experimental Results, Proc. 6th Intl. Colloquium on Gas-dynamics of Explosions and Reactive System, Stockholm, 1977.
7. Gupta, A. K., Beér, J. M. and Swithenbank, J.: On the Operational Characteristics of a Multi-Annular Swirl Burner, Central States Section/The Combustion Institute Meeting, Cleveland, Ohio, March 1977. [https://doi.org/10.1016/S0082-0784\(77\)80315-9](https://doi.org/10.1016/S0082-0784(77)80315-9)
 8. Gupta, A. K., Jhawar, P. and Beér, J. M.: Combustion and Emission Characteristics of a Multi-Annular Swirl Burner, 85th AIChE Meeting, June 4-8, 1978. [https://doi.org/10.1016/S0082-0784\(77\)80315-9](https://doi.org/10.1016/S0082-0784(77)80315-9)
 9. Gupta, A. K.: Combustion Instabilities in Swirling Flows, D.V.V. Colloquium "Schwingungen in Feuerraumen", Germany, Invited Paper, Oct. 1978. OSTI ID: 6212911 Ref. no.: EDB-79-069877
 10. Gupta, A. K.: Reduction of Combustion Noise from Flames, Proc. International Symposium on the Protection of Workers against Noise, Dresden, Germany, Nov. 27-30, 1979. [https://doi.org/10.1016/0003-682X\(78\)90020-8](https://doi.org/10.1016/0003-682X(78)90020-8)
 11. Beér, J. M., Sarofim, A. F., Hanson, S. P. and Gupta, A. K.: High Temperature Pyrolysis of Oil Droplet and Coal Particle Streams, 5th EPA Fundamental Combustion Research Workshop, Newport Beach, CA, Jan. 1980.
 12. Gupta, A. K. and Rossi, I.: Application of Laser Schlieren Interferometry to Burning Droplets, AIAA 18th Aerospace Sciences Meeting, Pasadena, CA, Jan. 14-16, 1980, Paper no. 80-0349. <https://doi.org/10.2514/6.1980-349>
 13. Beér, J. M., Sarofim, A. F., Timothy, L. D., Hanson, S. P., Gupta, A. K. and Levy, J. M.: Two Phase Processes Involved in the Control of Nitrogen Oxide Formation in Fossil Fuel Flames, EPA/EPRI Symposium, Denver, Colorado, Oct. 6-9, 1980, EPA-EPRI IERL-RTP 1086, Vol. IV, 1980, p. 43-83.
 14. Beér, J. M., Jacques, M. T., Hanson, S. P., Gupta, A. K. and Rovesti, W.: Control of NO_x and Particulate Emission from SRC-II Spray Flames, Paper presented at the EPA/EPRI Symposium, Denver, Colorado, Oct. 6-9, 1980, EPA-EPRI IERL-RTP 1086, Vol. IV, 1980, pp. 279-321, Also AIChE National Meeting, Chicago, Nov. 1980.
 15. Walsh, P. M., Gupta, A. K. and Beér, J. M.: Gaseous and Solid Species Concentration Distributions in Fluidized Bed Combustors, Proc. DOE/West Virginia University Conference on Fluidized-Bed Combustion System Design and Operation, Morgantown, West Virginia, Oct. 27-29, 1980.
 16. Gupta, A. K., Khan, H., Beér, J. M. and Lilley, D. G.: Flowfield Calculations in a MHD Swirl Combustor, AIAA 19th Aerospace Sciences Meeting, St. Louis, Missouri, 1981, Paper No. 81-0044. <https://DOI.org/10.2514/6.1981-44>

17. Gupta, A. K., Beér, J. M., Louis, J. F., Lilley, D. G. and Busnaina, A. A.: Predictions of MHD Swirl Combustor Flows using a Primitive Variable Solution Procedure, Proc. 19th Symposium on Engineering Aspects of Magnetohydrodynamics, University of Tennessee Space Institute, June 15-17, 1981, p. 16.6.1 - 16.6.6.
18. Senkan, S. M., Gupta, A.K., Robinson, J. M. and Valeiras, H.: Combustion of Chlorinated Hydrocarbons, EPA First State-of-the-Art Research Seminar in Environmental Engineering, Cincinnati, Ohio, July 22-24, 1981. [https://doi.org/10.1016/0010-2180\(83\)90173-6](https://doi.org/10.1016/0010-2180(83)90173-6)
19. Gupta, A. K., Beér, J. M., Louis, J. F., Busnaina, A. A. and Lilley, D. G.: Flow Aerodynamics Modeling of an MHD Swirl Combustor: Calculations and Experimental Verification, Proc. ASME Symposium on Fluid Mechanics of Combustion Systems, Boulder, Colorado, June 22-24, 1981, p. 179-189. <https://doi.org/10.1115/1.3241856>
20. Senkan, S. M., Gupta, A. K. and Valeiras, H.: Thermal Oxidation Kinetics of Chlorinated Hydrocarbons, Presented at the Division of the Environmental Chemistry, American Chemical Society, Las Vegas, Nevada, March/April, 1982, ACS Div. Env. Chem. Preprints, 22, 176, 1982.
21. Lilley, D. G., Busnaina, A. A. and Gupta, A. K.: Modeling Parameter Influences on MHD Swirl Combustor Nozzle Design, AIAA/ASME Fluids and Heat Transfer Conference, St. Louis, MO, June 7-11, 1982, Paper No. 82-0984. DOI: 10.2514/6.1982-984
22. Gupta, A. K.: Laser Applications to Combustion Research AIAA/SAE/ASME 19th Joint Propulsion Conference, Seattle, WA, June 27-29, 1983, Paper No. 83-1360. DOI: 10.2514/6.1983-1360
23. Belousov, A. N., and Gupta, A. K.: PVC and Instability in Swirl Combustors, Paper presented at the AIAA 22nd Aerospace Science Meeting, Reno, Nevada, January 9-12, 1984, Paper No. 84-0206. DOI: 10.2514/6.1984-206
24. Gupta, A. K.: Combustion of Chlorinated Hydrocarbons, Paper presented at the AIAA 22nd Aerospace Sciences Meeting, Reno, Nevada, January 9-12, 1984, Paper No. 84-0444. DOI: 10.2514/6.1984-444
25. Gupta, A. K. and diMarzo, M.: Computer Applications to Combustion Research, 1984 ASME International Computers in Engineering Conference and Exhibit, Las Vegas, Nevada, August 12-16, 1984.
26. Gupta, A. K., and Jackson, T. W.: Fouling and Particulate Deposition in Practical Systems, AIAA 23rd Aerospace Sciences Meeting, January 14-17, 1985, Reno, Nevada, Paper No. 85-0318. DOI: 10.2514/6.1985-318
27. Presser, C., Gupta, A. K., Santoro, R. J. and Semerjian, H. G.: Drop Size Measurement in

- a Swirling Kerosene Spray Flame by Laser Light Scattering Diagnostics, Proc. Intl. Conference on Liquid Atomization and Spray Systems, Imperial College, London, July 8-10, 1985, Vol. 2, p. VIIC/2/1/-13.
28. Gupta, A. K.: Determination of Temperature by Laser Schlieren Interferometry, International Symposium on Fluid Control and Measurement, Tokyo, September 2-6, 1985.
 29. Presser, C., Gupta, A. K., Santoro, R. J. and Semerjian, H. G.: Velocity and Droplet Size Measurements in a Fuel spray, AIAA 24th Aerospace Sciences Meeting, Reno, Nevada, January 6-9, 1986 Paper No. 86-0297. DOI: 10.2514/6.1986-297
 30. Gupta, A. K. and Jackson, T. W.: On the Mechanism of Particle Deposition Through Boundary Layers in Heat Exchange Systems, AIAA 24th Aerospace Sciences Meeting, Reno, Nevada, January 6-9, 1986, Paper No. 86-0524. DOI: 10.2514/6.1986-524
 31. Lilley, D. G. and Gupta, A. K.: Prospects for Improved Simulation of Combustion Processes, Proc. First International Power Conference and Exhibition, Beijing, China, October 16-20, 1986. Also presented at the 7th Intl. Mechanical Power Engineering Conference, Cairo, Egypt, December 17-20, 1990.
 32. Gupta, A. K. and Lilley, D. G.: Problem Areas in Experimental Combustion Research, Proc. First International Power Conference and Exhibition, Beijing, China, October 16-20, 1986. Also presented at the 7th Intl. Mechanical Power Engineering Conference, Cairo, Egypt, Dec. 17-20, 1990.
 33. Gupta, A. K. and Lilley, D. G.: The Gray Areas in Combustion Research, AIAA 22nd Joint Propulsion Conference, Huntsville, Alabama, June 16-18, 1986, Paper No. 86-1663. DOI: 10.2514/6.1986-1663
 34. Gupta, A. K. and Lilley, D. G.: Computer Applications in Modeling and Diagnostics, ASME International Computers in Engineering Conference and Exhibition, Chicago, ILL, July 20-26, 1986.
 35. Lilley, D. G., Busnaina, A. A., and Gupta, A. K.: Swirling Flow Prediction Through a Diverging Nozzle, ASME International Computers in Engineering Conference and Exhibition, Chicago, ILL, July 20-26, 1986, ASME, Vol. 3, p. 249-256.
 36. Presser, C., Gupta, A. K., Santoro, R.J. and Semerjian, H. G.: Effect of Combustion Air Swirl on Liquid Fuel Spray Characteristics, 21st Symposium (International) on Combustion, presented in Poster Session, Munich, W. Germany, August 1986.
 37. Presser, C., Gupta, A. K., Santoro, R. J. and Semerjian, H. G.: Laser Diagnostics for Characterization of Fuel Sprays, Fifth International Congress on Applications of Lasers and Electro-Optics, ICALEO, 1986, Arlington, Va., November 10-13, 1986, Vol. 58, p. 160-167.

38. Presser, C., Gupta, A. K., Semerjian, H. G., and Santoro, R. J.: Droplet/Air Interaction in a Swirl-Stabilized Spray Flame, Proc. 2nd ASME/JSME Thermal Engineering Joint Conference, Honolulu, Hawaii, March 22-29, 1987, ASME, NY, Vol. 1, p. 73-83.
39. Esmaili, H., Gupta, A. K., Ong, L.H., and Lilley, D. G.: On the Mechanism of Fouling and Particulate Deposition on Transfer Surfaces, A1AA 25th Aerospace Sciences Meeting, Reno, Nevada, Jan. 12-15, 1987, Paper No. 87-0302. DOI: 10.2514/6.1987-302
40. Gupta, A. K.: Problems and Progress Associated with the Disposal of Hazardous Chlorinated Chemical Wastes, Energy-Sources Technology Conference, Management of Energy Technology Symposium, Dallas, TX, Feb. 15-19, 1987.
41. Esmaili, H., and Gupta, A. K.: The Effects of Gas Phase Diffusion on Fouling and Deposition in Heat Exchange Systems, Proc. 2nd ASME/JSME Thermal Engineering Joint Conference, Honolulu, Hawaii, March 22-29, 1987, Vol. 1, p. 631-637. DOI: 10.2514/6.1987-1650
42. Gupta, A. K., Ong, L. H., and Marchionna, N.: NO_x Reduction and Combustion Phenomena in the Multi-Annular Gas Turbine Swirl Burner, AIAA/SAE/ASME/ASEE, 23rd Joint Propulsion Conf., San Diego, CA, June 29-July 2, 1987, paper No. 87-2036. DOI: 10.2514/6.1987-2036
43. Presser, C., Gupta, A. K. and Semerjian, H. G.: Fuel Nozzle Effects on Droplet Size in a Pressure Atomized Fuel Spray, Presented at the AIAA/SAE/ASME/ASEE 23rd Joint Propulsion Conference, San Diego, June 29-July 2, 1987, paper No. 87-2134.
44. Razavi, R. M., and Gupta, A. K.: Numerical Simulation of Flow and Combustion Phenomena in a Power Plant Boiler, Proc. ASME National Heat Transfer Conference, Pittsburgh, PA, August 9-12, 1987, HTD-Vol. 74, p. 29-38.
45. Razavi, R. M., and Gupta, A. K.: Effect of Swirl and the MASB Geometry on Flowfield and Combustion Characteristics, ASME Computers in Engineering Conference and Exhibition, New York, August 9-13, 1987.
46. Esmaili, H., Ong, L. H., and Gupta, A. K.: Experimental and Theoretical Studies of Fouling on a Simulated Heat Exchanger, Proc. ASME International Computers in Engineering Conference and Exhibition, New York, August 9-13, 1987, p. 391-399.
47. Gupta, A. K. and Lilley, D. G.: An Overview of the Research needs in Practical Combustion Systems, Proc. ASME National Heat Transfer Conference, Pittsburgh, PA, August 9-12, 1987, HTD-Vol. 74, p. 1-10.
48. Gupta, A. K. and Lilley, D. G.: The Role of Diagnostics for Improved Simulation of Practical Flowfields, Proc. 5th Int'l. Conference on Numerical Methods for Thermal Problems, Montreal, Canada, June 29-July 3, 1987, p. 869-883.

49. Lilley, D. G. and Gupta, A. K.: Simulation of Industrial Combustion Processes, ASME Winter Annual Meeting, Forum on Industrial Application of Fluid Mechanics, Boston, MA, December 13-18, 1987, FED-Vol. 54, p. 37-40.
50. Presser, C., Gupta, A. K. and Semerjian, H. G.: Examination of Liquid Fuel Spray Structure Using Laser Diagnostics, 1st Annual Conference on Liquid Atomization and Spray Systems, ILASS Americas '87, Madison, Wisconsin, June 8-11, 1987.
51. Esmaili, H., Ong, L. H. Gupta, A. K. and Lilley, D. G.: Simulation of Gas Phase Diffusion on Fouling and Deposition in Heat Exchange Systems, AIAA 22nd Thermophysics Conference, Honolulu, HI, June 8-10, 1987, Paper No. 87-1650. DOI: 10.2514/6.1987-1650
52. Presser, C., Gupta, A. K., and Semerjian, H. G.: Laser Diagnostics in Evaporating Sprays and Spray Flames, 1987 AIChE Annual Meeting, New York, Nov. 15-20, 1987.
53. Razavi, R. M., Gupta, A. K., and Marchionna, N.: Flowfield and Combustion Phenomena in the Multi-Annular Swirl Burner for NO_x Reduction, AIAA, 26th Aerospace Sciences Meeting, Reno, NV, Jan. 11-14, 1988, Paper No. 88-0154. DOI: 10.2514/6.1988-154
54. Gupta, A. K. and Razavi, R. M.: Study of Flowfield and Combustion Characteristics in a Power Plant Boiler, Proc. 1st European Conference on Industrial Furnaces and Boilers, Lisbon, Portugal, March 21-24, 1988.
55. Gupta, A. K., Razavi, R. M. and Chomiak, J.: Experimental and Theoretical Studies in the Controlled Mixing Variable Geometry Combustor, AIAA/SAE/ASME/ASEE, 24th Joint Propulsion Conference, Boston, MA, July 11-13, 1988, Paper No. 88-2857. DOI: 10.2514/6.1988-2857
56. Esmaili, H., Gupta, A. K., and Chomiak, J.: Effects of Particle Inertia on Thermophoretic Deposition Rates in Nonisothermal Systems, AIAA/SAE/ASME/ASEE 24th Joint Propulsion Conference, Boston, MA, July 11-13, 1988, Paper No. 88-3179. DOI: 10.2514/6.1988-3179
57. Presser, C., Gupta, A. K., and Semerjian, H. G.: Dynamics of Pressure-Jet and Air-Assist Nozzle Sprays: Aerodynamic Effects, AIAA/SAE/ASME/ASEE 24th Joint Propulsion Conference, Boston, MA, July 11-13, 1988, Paper No. 88-3139. DOI: 10.2514/6.1988-3139
58. Razavi, R. M. and Gupta, A. K.: Effect of Swirl and the MASB Geometry on Flowfield, Combustion and NO Emission Characteristics, ASME Computers in Engineering Conference, San Francisco, CA, July 31 - Aug. 3, 1988. <https://doi.org/10.1115/1.2818171>
59. Razavi, R. M. and Gupta, A. K.: Parametric Simulation of Mixing Processes in a Power

- Plant Boiler, ASME Computers in Engineering Conference, San Francisco, CA, July 31 - Aug 3, 1988, p. 267-275.
60. Presser, C., Gupta, A. K., and Semerjian, H. G.: Spray Characteristics of a Research Air Assist Atomizer, 2nd Annual Conference on Liquid Atomization and Spray Systems, ILASS Americas '88, Pittsburgh, PA, May 19-20, 1988, p. 11-15.
 61. Presser, C., Gupta, A. K., and Semerjian, H. G.: Influence of Size Distribution Function on Mean Droplet Size Obtained by Ensemble Light Scattering, ASTM Meeting, Atlanta, GA, November, 1988.
 62. Presser, C., Gupta, A. K. and Semerjian, H. G.: Aerodynamic Effects on Fuel Spray Characteristics: Air-Assist Atomizer, Poster paper presented at 22nd Symposium (Intl.) on Combustion, The Combustion Institute, Seattle, WA, August 14-19, 1988. DOI: 10.2514/6.1992-227
 63. Esmaili, H., Chomiak, J. and Gupta, A. K.: Effect of Inertial and Thermophoretic Forces on Particle Deposition in Laminar Boundary Layer on a Simulated Heat Exchanger, *ibid*, Seattle, WA, August 14-19, 1988. DOI: 10.2514/6.1988-3179
 64. Gupta, A. K., Chomiak, J. and Ramavajjala, M.: Controlled Mixing Variable Geometry Combustor Design Effects on Emission and Combustion characteristics, Proc. 21st Fall Technical Meeting, Eastern States Section of the Combustion Institute Meeting, Clearwater Beach, FL, Dec. 5-7, 1988.
 65. Presser, C., Gupta, A. K. and Semerjian, H. G.: Effect of Atomization Air on Droplet Dynamics of Spray Flames, *ibid*, Clearwater Beach, FL, Dec. 5-7, 1988. OSTI Identifier: 5155670 DOE Contract Number: AI01-86CE90213
 66. Avedisian, C. T., Presser, C., Gupta, A. K. and Semerjian, H.G.: Structure of a Burning n-Heptane Spray Generated from a Pressure-Jet Atomizer, *ibid* Clearwater Beach, FL, Dec. 5-7, 1988. OSTI Identifier: 10153189, DOE Contract Number: AI01-86CE90213
 67. Beshai, S.W., Deniz, O., Chomiak, J. and Gupta, A. K.: Cycle-by-Cycle Variation of Maximum Energy Release Rates in a Spark Ignition Engine, Proc. ASME Winter Annual Meeting, Forum on Industrial Applications of Fluid Mechanics, Chicago, IL, Nov. 28 - Dec. 2, 1988, FED-VOL. 70, p. 5-8.
 68. Presser, C., Gupta, A. K. and Semerjian, H. G.: Aerodynamic Effects on Fuel Spray Characteristics: Air Assist Atomizer, *ibid*, Chicago, IL, Nov. 28- - Dec. 2, 1988, HTD - Vol. 104, p. 111-119.
 69. Gupta, A. K., Ramavajjala, M., Chomiak, J. and Marchionna, N.: Burner Geometry Effects on Combustion and NO_x Emission Characteristics of Variable Geometry Swirl Combustor, AIAA Aerospace Sciences Meeting, Reno, NV. Jan. 8-12, 1989, Paper No. 89-0488. DOI: 10.2514/6.1989-488

70. Gupta, A. K., Chomiak, J., Ramavajjala, M. and Marchionna, N.: Controlled Mixing and Variable Geometry Combustor Design Effects on Emissions and Combustion Characteristics, Proc. IXth International Symposium on Air Breathing Engines, Athens, Greece, September 3-8, 1989, p. 455-464.
71. Presser, C., Gupta, A. K., and Semerjian, H. G.: Nozzle Design Effects on Dense Spray Region Characteristics, Proc. 3rd Annual Conference on Liquid Atomization and Spray Systems, ILASS-89, Irvine, CA, May 15-16, 1989, p. 51-55.
72. Beshai, S., Deniz, O., Chomiak, J., and Gupta, A. K.: An Experimental Study of the Variations in Cyclic Energy Release Rate in a Spark Ignition Engine, AIAA/SAE/ASME/ASME 25th Joint Propulsion Conference, Monterey, CA, July 10-12, 1989, Paper No. 89-2890. DOI: 10.2514/6.1989-2890
73. Gupta, A. K.: Burner Geometry Effects on Flow and Combustion Characteristics in a Power Plant Boiler, ASME Computers in Engineering Conference, Anaheim, CA, July 30-August 2, 1989, p. 337-341. <https://doi.org/10.1115/GT2003-38799>
74. Gupta, A. K., Beshai, S., Deniz, O., and Chomiak, J.: Heat Release Rate Variation in a Spark Ignition Engine, 3rd International Seminar on Flame Structure, Alma-Ata, USSR, September 18-22, 1989.
75. Gupta, A. K.: Low NO_x Swirl Combustor Development for MHD Application, 10th International Conference on MHD Electrical Power Generation, Tiruchirapalli, India, December 5-9, 1989.
76. Gupta, A. K., Beshai, S., Deniz, O., and Chomiak, J.: Combustion Chamber Geometry Effects on Cycle-by-Cycle Variation of Heat Release Rate, Proc. ASME Winter Annual Meeting, Forum on Industrial Applications of Fluid Mechanics, San Francisco, December 10-15, 1989, ASME FED-Vol. 86, p. 23-27.
77. Presser, C., Gupta, A. K. and Semerjian, H. G.: Droplet Velocity Measurements in a Swirling Kerosene Spray flame, ASME Winter Annual Meeting, San Francisco, December 10-15, 1989, Heat Transfer in Combustion Systems, ASME Vol. HTD-122, 1989, p. 21-34.
78. Beshai, S., Deniz, O., Chomiak, J., and Gupta, A. K.: An Experimental Study of the Cyclic Energy Release Rate Variation in a Spark Ignition Engine, Proc. X1 National Conference on IC Engines and Combustion, IIT Madras, December 11-15, 1989, p. 680-690. DOI: 10.2514/6.1989-2890
79. Gupta, A. K. and Ramavajjala, M.: Swirl Combustor Design Effects on Emission and Combustion Characteristics, AIAA 28th Aerospace Sciences Meeting, Reno, NV, January 8-11, 1990, Paper No. 90-0548. DOI: 10.2514/6.1990-548
80. Presser, C., Gupta, A. K., Avedisian, C.T. and Semerjian, H. G.: Study of Droplet

Transport in Alcohol-Based Spray Flames Using Phase/Doppler Interferometry, 4th Annual Conference on Liquid Atomization and Spray Systems, ILASS 90, East Hartford, CT, May 21-23, 1990, p. 243-247.

81. Beshai, S. and Gupta, A. K.: Effect of Piston Geometry on Cyclic Variation of Heat Release Rate in an I.C. Engine, AIAA/SAE/ASME/ASEE 26th Joint Propulsion Conference, Orlando, FL, July 16-18, 1990, Paper No. 90-2440. DOI: 10.2514/6.1990-2449
82. Presser, C., Gupta, A. K. Avedisian, C. T., and Semerjian, H. G.: Combustion of Methanol and Methanol/Dodecanol Spray Flames, AIAA/SAE/ASME/ASEE 26th Joint Propulsion Conference, Orlando, FL, July 16-18, 1990, Paper No. 90-2446. DOI: 10.2514/6.1990-2446. Also presented at 7th Intl. Mechanical Power Engineering Conference, Cairo, Egypt, December 17-20, 1990.
83. Gupta, A. K.: Power Plant Thermal Losses and Optimization, Proc. ASME Computers in Engineering Conference, Boston, MA, August 5-9, 1990, p. 623-629.
84. Presser, C., Gupta, A. K., Avedisian, C. T. and Semerjian, H. G.: Fuel Property Effects on the Structure of Spray Flames, Presented at the 23rd Symposium (International) on Combustion, University of Orleans, France, July 22-27, 1990. [https://doi.org/10.1016/S0082-0784\(06\)80401-7](https://doi.org/10.1016/S0082-0784(06)80401-7)
85. Presser, C., Gupta, A. K. and Semerjian, H. G.: Effect of Swirl on the Structure of Pressure-Atomized Spray Flame, Paper presented at the 23rd Symposium, (Intl.) on Combustion, University of Orleans, France, July 22-27, 1990. OSTI Identifier: 10157898, DOE Contract no.: AI01-86CE90213
86. Beshai, S. W., Gupta, A. K., Ayad, S. S., and Abdel Gawad, T.A. K.: Chemiluminescence - A Diagnostic Technique for Internal Combustion Engines, Proc. ASME Winter Annual Meeting, Forum on Industrial Applications of Fluid Mechanics, Dallas, TX, November 26-30, 1990, ASME FED-Vol. 100, p. 115-118.
87. Presser, C., Gupta, A. K., and Semerjian, H. G.: The Structure of a Swirl Stabilized Kerosene Spray Flame, Proc. 23rd Fall Technical Meeting, Eastern States Section, The Combustion Institute Meeting, Orlando, FL, December 3-5, 1990. OSTI Identifier: 5183822, DOE Contract no.: AI01-86CE90213
88. Ramavajjala, M. S. and Gupta, A. K.: NO and NO₂ Emissions from a Variable Geometry Swirl Combustor, Proc. 7th Intl. Mechanical Power Engineering Conference, Cairo, Egypt, December 17-20, 1990. OSTI Identifier: 6380021
89. Beshai, S. W., Gupta, A. K., Deniz, O., and Chomiak, J.: Cycle-by-Cycle Variation of Heat Release Rate Variation in a Spark Ignition engine, Proc. 7th Intl. Mechanical Power Engineering Conference, Cairo, Egypt, December 17-20, 1990.

90. Waheed, H. and Gupta, A. K.: Emission Control from Resource Recovery Combustion Processes, Proc. 7th Intl. Mechanical Power Engineering Conference, Cairo, Egypt, December 17-20, 1990.
91. Ramavajjala, M. S. and Gupta, A. K.: Swirl Effect on NO and NO₂ Emissions in a Variable Geometry Combustor, AIAA Aerospace Sciences Meeting, Reno, NV, January 7-10, 1991, Paper No. 91-0643. DOI: 10.2514/3.23351
92. Waheed, H. and Gupta, A. K.: Emissions and Control from Practical Combustion Systems and their Impact on State Air Quality, Proc. 2nd European INFUB Symposium, Vilamoura, Algarve, April 2-5, 1991.
93. Gupta, A. K., Jiang, L., and Keating, E. L.: Piston Geometry Design Effects on Combustion and Emission Characteristics, Proc. ASME Computers in Engineering Conference, Santa Clara, CA, August 19-22, 1991. <https://doi.org/10.1115/CIE1991-0086>
94. Presser, C., Gupta, A. K., Avedisian, C. T., and Semerjian, H. G.: Study of the Structure of Methanol/Dodecanol Spray Flames, Proc. Fifth Int'l. Conference on Liquid Atomization and Spray Systems, ICLASS 91, NIST, Gaithersburg, MD, July 15-18, 1991, NIST SP813, p. 521-528. DOI: 10.2514/3.23513
95. Gupta, A. K. and Ramavajjala, M.: The Role of Swirl on NO and NO₂ Emission and Combustion Characteristics, Proc. Tenth Int'l. Symposium on Air Breathing Engines, Nottingham, U.K., September 1-6, 1991, p. 258-266.
96. Gupta, A. K.: The Role of Fluid Dynamics on Combustion and Emission, Proc. 26th Intersociety Energy Conversion Engineering Conference, IECEC-91, Boston, MA, August 5-9, 1991, Vol. 2, p. 408-412.
97. Gupta, A. K. and Lilley, D. G.: Combustion and Environmental Challenges for Gas Turbines in the 1990s, AIAA/SAE/ASME/ASEE 27th Joint Propulsion Conference, Sacramento, CA, June 24-27, 1991, Paper No. 91-1964. DOI: 10.2514/3.23722
98. Zurlo, J. R., Presser, C., Gupta, A. K. and Semerjian, H. G.: Determination of Droplet Characteristics in Sprays Using Three Different Sizing Techniques, AIAA/SAE/ASME/ASEE 27th Joint Propulsion Conference, Sacramento, CA, June 24-27, 1991, Paper No. 91-2200.
99. Gupta, A. K. and Jiang, L.: The Effect of Piston Geometry on Combustion and Emission, ASME Winter Annual Meeting, Industrial Applications of Fluid Mechanics, Atlanta, GA, December 1-6, 1991, ASME FED-Vol. 132, p. 109-119.
100. Zurlo, J. R., Presser, C. Gupta, A. K. and Semerjian, H. G.: Time Based Ensemble Scattering Measurements in Fuel Sprays, 1991 Technical Meeting, The Eastern Section of the Combustion Institute, Cornell University, NY, October 14-16, 1991. OSTI Identifier: 6707057, DOE Contract no.: AI01-86CE90213

101. Gupta, A. K. Ramavajjala, M. and Taha, M. R.: The Effect of Nozzle Geometry on the Structure of Flames and NO_x Emission, AIAA 30th Aerospace Sciences Meeting, Reno, NV, January 5-9, 1992, Paper No. 92-0766. DOI: 10.2514/6.1992-766
102. Fairfield, M. S., Butler, T. D., Presser, C., Gupta, A. K. and Semerjian, H. G.: Aerodynamic Effects on Fuel Spray Structure - Experiment and Theory, AIAA 30th Aerospace Sciences Meeting, Reno, NV, January 5-9, 1992, Paper No. 92-0227. OSTI Identifier: 5820560 DOE Contract no.: AI01-86CE90213
103. Gupta, A. K.: The Effect of Combustor Dome Geometry on the Structure of Flames and NO_x Emission, AIAA 28th Joint Propulsion Conference, Nashville, TN, July 6-8, 1992, Paper No. 92-2344. DOI: 10.2514/6.1992-3344
104. Bassuk, D. D., Gupta, A. K. and Magrab, E. B.: On-Line Monitoring of Gaseous Flames for Air-Fuel Ratio Control, 27th Intersociety Energy Conversion Engineering Conference, San Diego, CA, August 3-7, 1992, Paper No. 92-9226.
105. Chopra, H., Gupta, A. K., Keating, E. L. and White, E. B.: Thermal Destruction of Solid Wastes, 27th Intersociety Energy Conversion Engineering Conference, San Diego, CA, August 3-7, 1992, Paper No. 92-9224, Proc. IECEC, Vol. 1, 1992, p. 377-381. 6802923, CONF-920801, ISBN: 1-56091-264-2
106. Lu, J., Gupta, A. K. and Keating, E.L.: Effect of Engine Operating Parameters on Combustion and Emission Characteristics, ASME Computers in Engineering Conference, San Francisco, CA, August 3-6, 1992. <https://doi.org/10.1115/CIE1992-0080>
107. Avedisian, C.T., Presser, C. Gupta, A. K. and Semerjian, H. G.: Observations of Soot in Combustion of Methanol/Toluene Spray Flames, ASME Winter Annual Meeting, Anaheim, CA, Nov. 8-13, 1992, General Papers in Heat Transfer and Heat Transfer in Hazardous Waste Processing, ASME HTD Vol. 212, 1992, p. 161-167. OSTI Identifier: 10136213, DOE Contract no.: AI01-86CE90213
108. Lu, J., Gupta, A. K. and Keating, E. L.: Effect of I.C. Engine Operating Conditions on Combustion and Emission Characteristics, ASME Winter Annual Meeting, Anaheim, CA, Nov. 8-13, 1992, Industrial and Environmental Applications of Fluid Mechanics, ASME FED Vol. 145, 1992, p. 51-59. <https://doi.org/10.1115/1.2910201>
109. Keating, E. L. and Gupta, A. K.: Pyrolysis and Oxidative Pyrolysis of Cellulose, Energy Sources Technology Conference, Proc. Emerging Energy Technology Symposium, January 31-February 4, 1993, Houston, TX, ASME PD Vol. 50, 1993, p. 109-117.
110. Chopra, H., Gupta, A. K. and Keating, E. L.: Effect of Fuel Composition and Temperature on the Pyrolysis of Surrogate Solid Waste, Energy Sources Technology Conference, Proc. Emerging Energy Technology Symposium, Jan. 31-Feb. 4, 1993, Houston, TX, ASME PD Vol. 50, 1993, p. 101-108.

111. Gupta, A. K., Chopra, H. and Keating, E. L.: Controlled Combustion of Surrogate Waste Materials, AIAA 31st Aerospace Sciences Meeting, Reno, NV., January 11-14, 1993, Paper No. 93-0134. DOI: 10.2514/6.1993-0134.
112. Presser, C. and Gupta, A. K.: Behavior of Droplets in Pressure-Atomized Fuel Sprays, AIAA 31st Aerospace Sciences Meeting, Reno, NV, January 11-14, 1993, Paper No. 93-0132. DOI: 10.2514/6.1993-132
113. Zurlo, J. R. and Presser, C. and Gupta, A. K.: Time-Based Analysis of Phase/Doppler Data, SPIE Intl. Symp. on Lasers, Sensors and Applications (OE LASE '93), Los Angeles, January 16-23, 1993. <https://doi.org/10.1117/12.145690>
114. Presser, C., Avedisian, C. T., Gupta, A. K. and Hodges, J. H.: Influence of Mixture Composition on Soot Formation in Methanol/Toluene Spray Flames, Central and Eastern States Section of the Combustion Institute Meeting, New Orleans, March 15-17, 1993.
115. Waheed, H. and Gupta, A. K.: Control of Emissions from Internal Combustion Engines, Proc. 8th Intl. Conference for Mechanical Power Engineering, Alexandria University, Egypt, April 27-29, 1993.
116. Presser, C., Gupta, A. K. and Semerjian, H. G.: Droplet Transport in a Swirl-Stabilized Spray Flame, Proc. 8th Intl. Conference for Mechanical Power Engineering, Alexandria University, Egypt, April 27-29, 1993. DOI: 10.2514/3.23773
117. Lu, J., Gupta, A. K. and Keating, E. L.: Effect of IC Engine Operating Conditions on Combustion and Emission Characteristics, Proc. 8th Intl. Conference for Mechanical Power Engineering, Alexandria University, Egypt, April 27-29, 1993. <https://doi.org/10.1115/1.2910201>
118. Presser, C. and Gupta, A. K.: Droplet Transport in Nonswirling Pressure-Atomized Fuel Sprays Using Phase Doppler Interferometry, 6th Annual Conference on Liquid Atomization and Spray Systems, Worcester, MA, May 17-19, 1993.
119. Lu, J., Gupta, A. K., Pouring, A. A. and Keating, E.L.: A Preliminary Study of Chemically Enhanced Autoignition in an Internal Combustion Engine, Proc. 14th Intl. Symposium on Gas Dynamics of Explosions and Reactive Systems, Univ. of Coimbra, Portugal, August 1-6, 1993. <https://doi.org/10.4271/940758>
120. Gupta, A. K. and Keating, E. L.: Pyrolysis and Oxidative Pyrolysis of Polystyrene, Proc. ASME Computers in Engineering Conference, San Diego, CA, Aug. 9-12, 1993. Also presented at 12th Annual Incineration Conference, Knoxville, TN, May 3-7, 1993. Paper No. 173. <https://doi.org/10.1115/CIE1993-0055>
121. Lu, J., Gupta, A. K., Keating, E. L. and Pouring, A. A.: Emissions Control from IC Engines Using Advanced Combustion Chamber Design, Proc. ASME Computers in Engineering Conference, San Diego, CA, Aug. 9-12, 1993.

<https://doi.org/10.1115/CIE1993-0026>

122. Lu, J., Gupta, A. K., Keating, E. L. and Pouring A. A.: Piston Design Effects on Flame Development in a Homogeneously Charged I.C. Engine, Proc. 28th IECEC Conference, Atlanta, GA, August 8-13, 1993.
123. Gupta, A. K. and Keating, E. L.: Pyrolysis and Oxidative Pyrolysis of Polyvinyl Chloride, Proc. 28th IECEC Conference, Atlanta, GA, Proc. IHMT, August 8-13, 1993.
124. Gupta, A. K.: Low NO_x Combustor Development Using Aerodynamic Staging, Proc. XIth Intl. Symposium on Air Breathing Engines, Tokyo, Japan, Sept. 19-24, 1993. Also presented at Intl. Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, August 22-25, 1993, p. 475-480.
125. Presser, C. and Gupta, A. K.: Behavior of Droplets in Pressure-Atomized Fuel Sprays with Co-flowing Air Swirl, ASME National Heat Transfer Conference, Atlanta, GA, August 8-13, 1993. DOI: 10.2514/6.1993-132
126. Lu, J., Gupta, A. K., Pouring, A. A. and Keating, E. L.: Piston Geometry Effects on Flame Development in IC Engines, ASME 1993 Intl. Joint Power Generation Conference, Kansas City, MO, Oct. 17-22, 1993, ASME FACT Vol. 17, Combustion Modeling, Cofiring and NO_x Control, p. 23-31.
127. Keating, E. L. and Gupta, A. K.: A Comparison of the Pyrolysis and Oxidative Pyrolysis of Cellulose and Polystyrene, ASME 1993 Intl. Joint Power Generation Conference, Kansas City, MO, Oct. 17-22, 1993, ASME FACT Vol. 17, Combustion Modeling, Cofiring and NO_x Control, p.33-40. <https://doi.org/10.1115/CIE1993-0055>
128. Gupta, A. K., Presser, C., Hodges, J. T. and Avedisian, C. T.: The Role of Combustion on the Transport of Droplets in Pressure-Atomized Spray Flames, AIAA 32nd Aerospace Sciences Meeting, Reno, NV, January 10-13, 1994, Paper No. 94-0115. DOI: 10.2514/6.1994-115
129. Keating, E. L. and Gupta, A. K.: A Comparison of the Pyrolysis and Oxidative Pyrolysis of Cellulose and Polyvinyl Chloride, Proc. ASME 17th Annual Energy Sources Technology Conference, New Orleans, LA, Jan. 23-26, 1994, ASME Emerging Energy Tech., PD-Vol. 57, 1994, p. 117-124.
130. Ilanchezhian, E., Gupta, A. K. and Keating, E. L.: Thermal Destruction Behavior of Plastics, 1994 Incineration Conference, Houston, TX, May 9-13, 1994, Paper No. 197. OSTI Identifier: 72849
131. Lu, J., Gupta, A. K., Pouring, A. A. and Keating, E. L.: A Preliminary Study of Chemically Enhanced Autoignition in an Internal Combustion Engine, SAE International Congress and Exposition, Detroit, MI, Feb. 28 - March 3, 1994, Paper No. 940758. <https://doi.org/10.4271/940758>

132. Keating, E. L. and Gupta, A. K.: Modes of Oxygen Enrichment on I.C. Engine Indicated Performance, Proc. ASME Fluids Engineering Division Summer Meeting, Incline Village, NV, June 19-23, 1994, FED-Vol. 186, Industrial and Environmental Applications of Fluid Mechanics, ASME, 1994, p. 85-93. OSTI Identifier: 110050
133. Brasoveanu, D. and Gupta, A. K.: The Effect of Turbulence and Mixing on Flame Characteristics, Proc. ASME Fluids Engineering Division Summer Meeting, Incline Village, NV, June 19-23, 1994, FED-Vol. 186, Industrial and Environmental Applications of Fluid Mechanics, ASME, 1994, p. 95-102. OSTI Identifier: 110051
134. Presser, C., Gupta, A. K., Hodges, J. T. and Avedisian, C. T.: Dispersion of Droplets in a Swirling Pressure-Atomized Spray Flame, Int'l. Conference on Liquid Atomization and Spray Systems, ICLASS 94, Rouen, France, July 18-22, 1994. DOI: [10.1615/ICLASS-94.1030](https://doi.org/10.1615/ICLASS-94.1030)
135. Keating, E. L. and Gupta, A. K.: Effect of Oxygen Enrichment on the Predicted Performance of an I.C. Engine, Proc. 29th Intersociety Energy Conversion Engineering Conference, Monterey, CA, August 7-11, 1994, Paper No. 94-3826, p. 636-643. DOI: 10.2514/6.1994-3826
136. Gupta, A. K. and Keating, E. L.: Role of Polystyrene on the Product Composition of Solid Wastes During Thermal Destruction, Proc. 29th Intersociety Energy Conversion Engineering Conference, Monterey, CA, August 7-11, 1994, Paper No. 94-3892, p. 654-659. <https://doi.org/10.1115/CIE1994-0457>
137. Gupta, A. K., Ilanchezhian, E. and Keating, E. L.: Influence of PVC on the Product Composition of Solid Waste During Thermal Destruction, Proc. ASME Computers in Engineering Conference, Minneapolis, MN, September 11-15, 1994.
138. Gupta, A. K., Li, Z., Pouring, A.A., and Keating, E. L.: Correlation of Measured Cylinder Pressure and Chemiluminescence Rate of Heat Release in a Spark Ignition Engine, SAE Fuels and Lubricants Meeting, Baltimore, MD, October 17-21, 1994.
139. Gupta, A. K., Ilanchezhian, E., Missoum, A. and Keating, E. L.: Thermal Destruction Behavior of Plastic and Non-Plastic Wastes in a Laboratory Scale Facility, ASME Intl. Joint Power Generation Conference, Phoenix, AZ, October 2-6, 1994. OSTI Identifier: 72849
140. Presser, C., Hodges, J. T., Gupta, A. K., and Avedisian, C.T.: Dispersion of Droplets in a Swirling Pressure-Atomized Spray Flame, Central States Section of the Combustion Institute Meeting, Clearwater, FL, December 5-7, 1994. <http://dx.doi.org/10.1615/ICLASS-94.1030>
141. Rom, J., Nusca, M. J., Kruczynski, D.L., Lewis, M. J., Gupta, A. K. and Sabeen, J.: Investigations of the Combustion Induced by a Step on a Projectile Flying at Hypersonic

- Speed in the External Propulsion Accelerator, AIAA Aerospace Sciences Meeting, Reno, NV., January 9-12, 1995, Paper No. 95-0259. <https://doi.org/10.2514/6.1995-259>
142. Presser, C., Gupta, A. K., Hodges, J.T. and Avedisian, C.T.: Interpretation of Size-Classified Droplet Velocity Data in Swirling Spray Flames, 33rd Aerospace Sciences Conference, Reno, NV, January 9-12, 1995, Paper No. 95-0283. <https://doi.org/10.2514/6.1995-283>
 143. Gupta, A. K.: Gas Turbine Combustion: Prospects and Challenges, Invited Plenary Lecture Presented at the Israel 35th Aerospace Sciences Conference, Tel-Aviv, February 15-16, 1995.
 144. Rom, J., Nusca, M. J., Lewis, M. J., Gupta, A. K. and Sabeen, J.: Calculations of Combustion in a Scram-Jet Engine Model Using the External Propulsion Accelerator as a Test Facility, Proc. Israel 35th Aerospace Sciences Conference, February 15-16, 1995. <https://apps.dtic.mil/sti/pdfs/ADA297325.pdf>
 145. Gupta, A. K., Tanaka, R., Mochida, R. and Hasegawa, T.: Excess Enthalpy Combustion in Boilers and Furnaces, 3rd European Conference on Industrial Furnaces and Boilers, Lisbon, Portugal, April 18-21, 1995.
 146. Brasoveanu, D. and Gupta, A. K.: The Effect of Turbulence on Mixing and Flame Characteristics, 3rd European Conference on Industrial Furnaces and Boilers, Lisbon, Portugal, April 18-21, 1995. OSTI Identifier: 110051
 147. Lewis, M. J. and Gupta, A. K.: The NASA-Sponsored Maryland Center for Hypersonic Education and Research, 6th Intl. AIAA Aerospace Plane and Hypersonics Technologies Conference, Chattanooga, TN, April 3-7, 1995. <https://ntrs.nasa.gov/citations/19950056411>
 148. Presser, C., Gupta, A. K., Hodges, J. T. and Avedisian, C.T.: Estimation of Droplet Drag and Acceleration in Swirling Spray Flames, ICLASS 95, Warren, MI, May, 1995. <https://www.researchgate.net/publication/281107850>
 149. Keating, E. L., Gill, S. and Gupta, A. K.: High Temperature Thermal Destruction of Solid Wastes in the 21st Century Shipboard Environment, Proc. Incineration Conference, Seattle, WA, May 8-11, 1995. <https://doi.org/10.1115/1.2793861>
 150. Keating, E. L., Gill, S. and Gupta, A. K.: Environmentally Acceptable Disposal of Solid Wastes, Forum on Industrial and Environmental Applications of Fluid Mechanics, ASME Summer Fluids Engineering Meeting, Hilton Head, S.C., August 13-17, 1995. OSTI Identifier: 163401
 151. Missoum, A., Gupta, A. K. and Keating, E. L.: Pyrolysis of Polyethylene Terephthalate and Bisphenol-A-Polycarbonate in a Laboratory Scale Thermal Destruction Facility, Forum on Industrial and Environmental Applications of Fluid Mechanics, ASME

- Summer Fluids Engineering Meeting, Hilton Head, S.C., August 13-17, 1995, also presented at the Computers in Engineering Conference, Boston, MA, August, 1995. <https://doi.org/10.1115/CIE1995-0763>
152. Gupta, A. K. and Lilley, D. G.: Energy Recovery Opportunity from Wastes, 30th Intersociety Energy Conversion Engineering Conference, Orlando, FL, July 31-August 4, 1995. <https://doi.org/10.2514/2.5439>
 153. Brasoveanu, D. and Gupta, A. K.: Analysis of Gaseous Fuel and Air Mixing, Forum on Industrial and Environmental Applications of Fluid Mechanics, ASME Summer Fluids Engineering Meeting, Hilton Head, S.C., August 13-17, 1995.
 154. Missoum, A. Gupta, A. K. and Keating, A. K.: Combustion of Bisphenol-A-Polycarbonate, Polyethylene Terephthalate and Cellulose in a Laboratory Scale Thermal Destruction Facility, Proc. 1995 Intl. Joint Power Generation Conference, ASME EC-Vol. 3, FACT-Vol. 20, 1995, P. 171-179. OSTI Identifier: 211752
 155. Gupta, A. K.: Gas Turbine Combustion: Prospects and Challenges, Invited Speaker at the Intl. Symposium on Advanced Energy Conversion and Related Technologies (RAN95), Nagoya, Japan, Dec. 4-6, 1995. [https://doi.org/10.1016/S0196-8904\(96\)00160-4](https://doi.org/10.1016/S0196-8904(96)00160-4)
 156. Rom, J., Nusca, M.J., Kruczynski, D., Lewis, M. J., Gupta, A. K. and Sabeen, J.: Recent Results with the External Propulsion Accelerator, 31st AIAA/ASME/SAE/ASEE Joint Propulsion Conference, July 10-12, 1995, Paper No. 05-2491. <https://doi.org/10.2514/6.1995-2491>
 157. Rom, J., Nusca, M.J., Kruczynski, D., Lewis, M. J., Gupta, A. K. and Sabeen, J.: Scramjet Engine Testing in the External Propulsion Accelerator, Intl. Symposium on Air Breathing Engines (ISOABE), Melbourne, Australia, September 10-15, 1995.
 158. Presser, C., Gupta, A. K., Hodges, J. T. and Avedisian, C. T.: Dispersion of Droplets in Swirling Spray Flames, ASME Winter Annual Meeting, San Fransisco, CA, November, 1995. OSTI Identifier: 435802
 159. Marshall, A. W. and Gupta, A. K.: Effects of Jet Momentum Distribution on Thermal Characteristics of Co-Swirling Flames, AIAA 34th Aerospace Sciences Conference, Reno, NV, Jan. 15-18, 1996, Paper No. 96-0404. <https://doi.org/10.2514/6.1996-404>
 160. Gupta, A. K. Keating, K. L. and Gill, S.: High Temperature Thermal Destruction of Shipboard Solid Wastes in the 21st Century Environment, Proc. Energy Week Conference, Houston, TX, January 29-Feb. 2, 1996. OSTI Identifier: 287857
 161. Hawley, J. G., Reader, G. T., Keating, E. L. and Gupta, A. K.: Curriculum Development for Addressing Ship Pollution Issues, Proc. Energy Week Conference, Houston, TX, January 29-Feb. 2, 1996.

162. Aftel, R., Gupta, A. K. and Presser, C.: Effect of Oxygen in Air on Spray Characteristics in an Air Assist Atomizer, Proc. Institute of Liquid Atomization and Spray Systems (ILASS) Conference, May, 1996.
163. Missoum, A., Gupta, A. K. and Keating, E. L.: Thermal Destruction of Polypropylene and Polyethylene Terephthalate in a Laboratory Scale Thermal Destruction Facility, Proc. 1996 Incineration Conference, Savannah, GA, May 6-10, 1996. <https://doi.org/10.1115/1.2793873>
164. Brasoveanu, D. And Gupta, A. K.: Methane and Air Mixing Times Under Reacting and Nonreacting Conditions, ASME Summer Fluids Engineering Conference, San Diego, CA, July 8-12, 1996. DOI: 10.1109/IECEC.1996.552849
165. Missoum, A., Gupta, A. K. and Chen, J.: On the Thermal Destruction of Solid Wastes, ASME Summer Fluids Engineering Conference, San Diego, CA, July 8-12, 1996. <https://doi.org/10.1115/1.2793861>
166. Aftel, R., Gupta, A. K., Cook, C. and Presser, C.: Control of Droplet Atomization in an Air-Assist Atomizer, 8th International Symposium on Applications of Laser Techniques to Fluid Mechanics, Lisbon, Portugal, July 8-11, 1996. [https://doi.org/10.1016/S0082-0784\(96\)80388-2](https://doi.org/10.1016/S0082-0784(96)80388-2)
167. Missoum, A., Gupta, A. K., Chen, J and Keating, E. L.: Thermal Decomposition of Surrogate Wastes, Proc. IECEC96, 31st Inter-Society Energy Conversion Engineering Conference, Washington, DC, August 12-15, 1996, pp. 69-74, Paper No. 96-434. <https://doi.org/10.1109/IECEC.1996.552847>
168. Brasoveanu, D. and Gupta, A. K.: Methane and Air Mixing Times under Nonreacting and Reacting Conditions, Proc. IECEC-96, 31st Inter-Society Energy Conversion Engineering Conf., Washington, DC, Aug 12-15, 1996, pp. 79-84, Paper No. 96-435. <https://doi.org/10.1109/IECEC.1996.552849>
169. Missoum, A. M., Gupta, A. K., Chen, J. and Keating, E. L.: Kinetics of Thermal Decomposition of Surrogate Solid Wastes, Proc. Intl. Joint Power Generation Conference, Houston, TX, Oct.14-17, 1996. OSTI Identifier: 427859
170. Cook, C., Charagundla, S. R., Presser, C., Dressler, J. L. and Gupta, A. K.: Effect of Acoustic Atomization on Combustion Emissions, AFRC Meeting, Baltimore, MD, October, 1996, ASME HTD-Vol. 335, Proc. ASME Heat Transfer Division Vol.4, 1996, pp. 233-241.
171. Cook, C., Charangundla, S. R., Presser, C., Dressler, J. L. and Gupta, A. K.: Effect of Fuel Velocity Modulation on Atomization and Combustion, Eastern States Section of the Combustion Institute Meeting, Hilton Head, SC, December, 1996
172. Qi, S., Gupta, A. K. and Lewis, M. J.: Effect of Swirl on Temperature Distribution in

- Premixed Flames, 35th AIAA Aerospace Sciences Meeting, Reno, NV, January 6-10, 1997, Paper No. 97-0373. <https://doi.org/10.2514/6.1997-373>
173. Gupta, A. K., Damm, T., Cook, C., Charagundla, S. R. and Presser, C.: Effect of Oxygen-Enriched Atomization Air on the Characteristics of Spray Flames, 35th AIAA Aerospace Sciences Meeting, Reno, NV, January 6-10, 1997, Paper No. 97-0268.
 174. Cook, C., Charagundla, S. R., Presser, C., Damm, T. and Gupta, A. K.: Effect of Oxygen Enriched Atomization Air on Spray Flame Characteristics, ILASS97, Ottawa, Canada, May, 1997.
 175. Brasoveanu, D. and Gupta, A. K.: Analysis of Mixing Zone Length under Non-Reacting Conditions using Methane as Fuel, IASTED, Cancun, Mexico, May, 1997.
[OSTI Identifier: 20002761](#)
 176. Gupta, A. K., Chen, J. and Missoum, A.: An Investigation on the Pyrolysis of Cellulose and Surrogate Solid Waste, International Conference on Incineration and Thermal Treatment Technologies, San Francisco, CA, May 12-16, 1997.
 177. Gupta, A. K. and Presser, C.: Oxygen Enrichment of Atomization Air in Swirling Spray Flames, Presented at 5th Intl. Congress on Toxic Combustion By-Products, University of Dayton, June 25-27, 1997. <https://doi.org/10.2514/6.1997-268>
 178. Urbach, H. B., Knauss, D.T., Garman, R. W., Gupta, A. K. and Sexton, M. R.: A Steam-Augmented Gas Turbine with Reheat Combustor for Surface Ships, 1997 IGTI Conference, Orlando, FL, June 2-6, 1997, Paper No. 97-GT-254.
 179. Qi, S., Gupta, A. K. and Lewis, M. J.: Effect of Swirl on Combustion Characteristics in Premixed Flames, 1997 IGTI Conference, Orlando, FL, June 2-6, 1997, Paper No. 97-GT-276. <https://doi.org/10.1115/97-GT-276>
 180. Gupta, A. K. and Megerle, M.: Effect of Steam Assisted Atomization on Spray Flame Characteristics, 33rd AIAA/ASME/SAE/ASEE Joint Propulsion Conference, July 6-9, 1997, Seattle, WA, Paper No. AIAA 97-2839. <https://doi.org/10.2514/6.1997-2839>
 181. Brasoveanu, D. and Gupta, A. K.: Analysis of gaseous Fuel and Air Mixing in Flames and Flame Quenching, 33rd AIAA/ASME/SAE/ASEE Joint Propulsion Conference, July 6-9, 1997, Seattle, WA, Paper No. 97-3334. <https://doi.org/10.2514/2.5648>
 182. Gupta, A. K., Cook, C. and Presser, C.: Effect of Atomizing Gas Properties on Droplet Dispersion in an Air-Assist Atomizer, Intl. Conf. On Liquid Atomization and Spray Systems (ICLASS 97), August 18-22, 1997, Seoul, Korea.
 183. Danov, S. N. and Gupta, A. K.: Mathematical Model of Diesel Engine Combustion Process: Part 1 - Theory, Proc. 1997 ASME Design Engineering Technical Conference

- and Computers in Engineering Conference, September 14-17, 1997, Paper No. DETC97/CIE-4430. <https://doi.org/10.1115/DETC97/CIE-4430>
184. Danov, S. N. and Gupta, A. K.: Understanding of Diesel Engine Combustion Process via Mathematical Modeling: Part 2 - Results, Proc. 1997 ASME Design Engineering Technical Conference and Computers in Engineering Conference, September 14-17, 1997, Paper No. DETC97/CIE-4431. <https://doi.org/10.1115/DETC97/CIE-4431>
 185. Missoum, A, Gupta, A. K. and Chen, J.: Global Kinetics of the Thermal Decomposition of Materials, Proc. 1997 ASME Design Engineering Technical Conference and Computers in Engineering Conference, September 14-17, 1997, Paper No. DETC97/CIE-4433. <https://doi.org/10.1115/DETC97/CIE-4433>
 186. Gupta, A. K. and Li, Z.: Effect of Fuel Property on the Structure of Highly Preheated Air Flames, Proc. Intl. Joint Power Generation Conference (IJPGE-97), Denver, CO, Nov. 2-5, 1997, ASME EC-Vol. 5, pp. 247-258.
 187. Muller, P. and Gupta, A. K.: Pyrolysis and Oxidative Pyrolysis of Paper and Cardboard in Inert and Oxidative Environments, 36th AIAA Aerospace Sciences Meeting, Reno, NV, January 12-15, 1998, Paper No. 98-0264. <https://doi.org/10.2514/6.1998-264>
 188. Gotz, J. and Gupta, A. K.: Fuel-Air Mixing Under Simulated High Pressure and High Temperature Conditions, 36th AIAA Aerospace Sciences Meeting, Reno, NV, January 12-15, 1998, Paper No. 98-0269. <https://doi.org/10.2514/6.1998-269>
 189. Lewis, M. J., Pines, D. J. and Gupta, A. K.: The University of Maryland Hypersonics Center-Status Report, International Space Planes and Hypersonics Systems and Technologies Conference, Norfolk, VA, April 27-30, 1998, AIAA Paper No. 98-1549. <https://doi.org/10.2514/6.1998-1549>
 190. Gupta, A. K., Megerle, M., Charagundla, S. R. and Presser: Spray Flame Characteristics for High Temperature Gas-Assisted Atomization, ILASS Conference, Sacramento, CA, May 17-20, 1998.
 191. Danov, S. N., Gupta, A. K., and Arai, N: Influence of Imperfections in Working Media on Diesel Engine Indicator Process: Part 1-Theory, Japan 35th Heat Transfer Conference, Nagoya University, Japan, May 27-29, 1998, pp. 263-264. <https://doi.org/10.1115/DETC98/CIE-6026>
 192. Danov, S. N., Gupta, A. K., and Arai, N.: Influence of Imperfections in Working Media on Diesel Engine Indicator Process: Part 2-Results, Japan 35th Heat transfer Conference, Nagoya University, Japan, May 27-29, 1998, pp.265-266. <https://doi.org/10.1115/DETC98/CIE-6027>

193. Danov, S. N., Arai, N. and Gupta, A. K.: Effect of Fuel Injection Rate on Heat transfer in a Diesel Engine During the Combustion Process, Japan 35th Heat transfer Conference, Nagoya University, Japan, May 27-29, 1998, pp.551-552.
194. Ishiguro, T., Kitagawa, K., Arai, N., Furuhashi, T. and Gupta, A.K.: Study on Abel and Fourier Transforms in Image Analysis of Spectrally Resolved Emission from High Temperature Air-Hydrocarbon Combustion (in Japanese), 35th Japan Heat transfer Conference, Nagoya University, Japan, May 27-29, 1998, pp.615-616.
195. Birouk, M., Gupta, A. K. and Lewis, M. J.: Planar Laser Induced Fluorescence Imaging of OH Distribution in Lean Premixed Swirling Flames, Proc. Intl. Joint Power Generation Conference (IJPGC98), Baltimore, MD, August, 23-26, 1998, ASME FACT-Vol. 22, 1998, pp.603-612. OSTI Identifier: 20013563
196. Bolz, S. and Gupta, A. K.: Effect of Air Preheat Temperature and Oxygen Concentration on Flame Structure and Emissions, Proc. Intl. Joint Power Joint Generation Conference (IJPGC98), Baltimore, MD, August, 1998, ASME FACT-Vol. 22, 1998, pp.193-205.
<https://doi.org/10.1115/1.2795984>
197. Daurer, M., Gupta, A.K. and Lewis, M.J.: Swirl Effects on Combustion Characteristics of Premixed Flames, Proc. Intl. Joint Power Generation Conference (IJPGC98), Baltimore, MD, August, 1998 ASME FACT-Vol. 22, 1998, pp.573-578.
<https://doi.org/10.1115/1.1339987>
198. Gmurczyk, G. and Gupta, A. K.: Impact of Geometry on Spray Combustion in an Enclosure, Proc. Intl. Joint Power Generation Conference (IJPGC98), Baltimore, MD, August, 1998, ASME FACT-Vol. 22, 1998, pp.367-367.
199. Kitagawa, K., Konishi, N., Arai, N. and Gupta, A.K.: Two Dimensional Distribution of Flame Fluctuation During Highly Preheated Air Combustion, Proc. Intl. Joint Power generation (IJPGC98), Baltimore, MD, August 1998, ASME FACT-Vol. 22, 1998, pp.239-242. OSTI Identifier: 20013563
200. Brasoveanu, D. and Gupta, A. K.: Analysis of Mixing Zone Length Using Methane as Fuel, Proc. 33rd Intersociety Energy Conversion Engineering Conference, Colorado Springs, CO, August 2-6, 1998. OSTI Identifier: 20002761
201. Brasoveanu, D. and Gupta, A. K.: Maximum Mixing Times of Methane and Air Under Non-Reacting and Reacting Conditions, Proc. ASME 18th Computers in Engineering Conference, DETC 98, Atlanta, GA, September 21-24, 1998, Paper DETC/CIE-6025, See also Proc. IJPGC, ASME FACT-Vol. 22, 1998, pp.385-393.
<https://doi.org/10.1115/DETC98/CIE-6025>

202. Danov, S. N. and Gupta, A. K.: Influence of Imperfections in Working Media on Diesel Engine Indicator Process: Part 1- Theory, Proc. ASME 18th Computers in Engineering Conference, September 13-24, 1998, Paper DETC/CIE- 6026.
<https://doi.org/10.1115/DETC98/CIE-6026>
203. Danov, S. N. and Gupta, A. K.: Influence of Imperfections in Working Media on Diesel Engine Indicator Process: Part 2- Results, Proc. ASME 18th Computers in Engineering Conference, September 21-24, 1998, Paper DETC98/CIE-6027.
<https://doi.org/10.1115/DETC98/CIE-6027>
204. Gupta, A. K.: Thermal Destruction of Solid Wastes, Invited Keynote Lecture at 2nd Intl. Symposium on Advanced Energy Conversion and Related Technologies (RAN98), Nagoya University, Nagoya, Japan, December 1-3, 1998, Proc. RAN-98 conference, pp. 108-115. <https://doi.org/10.1115/1.2793861>
205. Meyer, E. and Gupta, A.K.: Effect of Swirl on Fuel/Air Mixing Under Simulated High Pressure and High Temperature Conditions, 37th AIAA Aerospace Sciences Meeting, Reno, NV, January 11-14, 1999, Paper No. 99-0340. <https://doi.org/10.2514/6.1999-340>
206. Gupta, A. K.: The Effect of Air Preheat Temperature and Oxygen Concentration in Air on the Structure of Propane Air Diffusion Flames, 37th AIAA Aerospace Sciences Meeting, Reno, NV, January 11-14, 1999, Paper No. 99-0725.
<https://doi.org/10.2514/6.1999-725>
207. Gupta, A. K, and Hasegawa, T.: Air Preheat and Oxygen Concentration Effects on the Thermal Behavior of Propane and Methane Diffusion Flames, Proc. 2nd Intl. Symposium on High Temperature Air Combustion, Kaohsiung, Taiwan, Jan. 19-22, 1999.
208. Danov, S. N. and Gupta, A. K.: Effect of Sauter Mean Diameter on the Combustion related Parameters in a Large-Bore Marine Diesel Engine, SAE Intl. Congress and Exposition, Detroit, MI, March 1-4, 1999, Paper No. 1999-01-0224.
<https://doi.org/10.4271/1999-01-0224>
209. Gupta, A. K.: Highly Preheated Air Combustion and Future Scope, Invited paper presented at Forum on High Temperature Air Combustion, Tokyo, Japan, March 8-9, 1999.
210. Brasoveanu, D. and Gupta, A.K.: Analysis of Propane-Air Mixing Under Reacting and Non-Reacting Conditions, 35th AIAA/ASME/SAE/ASEE Joint propulsion Conference, June 20-24, 1999, Paper No. 99-2783. <https://doi.org/10.2514/6.1999-2783>
211. Brasoveanu, D. and Gupta, A.K.: Effect of Temperature Distribution on Propane-Air Mixing Under Reacting and Non-Reacting Conditions, ASME Summer Fluids Engineering Conference, July 18-22, 1999.

212. Brasoveanu, D. and Gupta, A.K.: Effect of Pressure and Velocity Distribution on Propane and Air Mixing Under Reacting and Non-Reacting Conditions, Intersociety Energy Conversion Engineering Conference (IECEC), Vancouver BC, Canada, August 2-5, 1999, Paper No. 1999-01-2604. <https://doi.org/10.4271/1999-01-2604>
213. Danov, S. N. and Gupta, A.K.: Effect of Droplet Size on the Combustion Related Parameters in a Marine Diesel Engine, ASME Computers in Engineering Conference, Las Vegas, NV, September 13-16, 1999, Paper No. DETC99/CIE-9048.
214. Gmurczyk, G.W. and A.K. Gupta: PC-Based Computer Modeling of Combustion Processes, ASME Computers in Engineering Conference, Las Vegas, NV, September 13-16, 1999. <https://doi.org/10.1115/DETC99/CIE-9047>
215. Brasoveanu, D. and A. K. Gupta: Propane and Air Maximum Mixing Times, ASME Computers in Engineering Conference, Las Vegas, NV, September 13-16, 1999, Paper No. DETC99/CIE-9054. <https://doi.org/10.1115/DETC99/CIE-9054>
216. Gupta, A. K. and Hasegawa, T.: High Temperature Air Combustion: Flame Characteristics, Challenges and Opportunities, Invited Lecture, Proc. of Beijing Symposium on High Temperature Air Combustion, Beijing, China, October 18-19, 1999, pp. 10-28. OSTI Identifier: 20229975
217. Kitagawa, K., Arai, N. and Gupta, A. K.: A Spectroscopic Technique for the Measurement of Time Resolved Two Dimensional Temperature Profiles and its Application to Highly Preheated Air Combustion, AIChE Conference, Wyndham Anatole Hotel, Dallas, TX, Oct.31-Nov.5, 1999. <https://doi.org/10.1115/1.4024916>
218. Gupta, A. K.: Flame Characteristics with High Temperature Air Combustion, 38th AIAA Aerospace Sciences Meeting, Reno, NV, January 10-13, 2000, Paper No. 2000-0593. <https://doi.org/10.2514/6.2000-593>
219. Gupta, A. K.: Flame Characteristics and Challenges with High Temperature Air Combustion, Invited Lecture, Proc. 2nd International Seminar on High Temperature Combustion in Industrial Furnaces, Stockholm, Sweden, January 17-18, 2000.
220. Gupta, A. K.: Thermal Characteristics of Gaseous Fuels Flames using High Temperature Air, Invited Lecture at the 3rd International Symposium on High Temperature Air Combustion and Gasification, Yokohama, Japan, March 6-9, 2000. <https://doi.org/10.1115/1.1610009>
221. Gupta, A. K.: Flame Characteristics and Challenges with High Temperature Air Combustion, Invited lecture at 2nd Intl. Symposium of High Temperature Air Combustion and Applications, May 16-18, 2000, Taipei, Taiwan. <https://doi.org/10.2514/6.2000-593>

222. Gupta, A.K.: High Temperature Air Combustion: Flame Characteristics, Challenges and Opportunities, Invited Lecture at the 12th Intl. Symposium on Transport Phenomena, ISTP-12, Istanbul, Turkey, July 16-20, 2000.
223. Kitagawa, K., Konish, N., Arai, N. and Gupta, A. K.: A Spectroscopically and Temporally Resolved 2-D Study on the Effects of Highly Preheated and Low Oxygen Concentration Air on Combustion, Intl. Joint Power Generation Conference (IJPGC), Miami, FL, July 23-26, 2000. <https://doi.org/10.1115/1.1520155>
224. Gupta, A. K.: Effect of Swirl and Flow Distribution on the Spray Flame Characteristics, Proc. Intersociety Energy Conversion Engineering Conference, Las Vegas, NV, July 24-27, 2000, Paper No. AIAA 2000-3034. <https://doi.org/10.2514/6.2000-3037>
225. Brasoveanu, D. and Gupta, A. K.: A Mathematical Model for Predicting Conditions that Prevent Gaseous Fuel-Air Mixing, Proc. ASME Computers and Information in Engineering Conference, Baltimore, MD, September 11-14, 2000, Paper No. DETC2000/CIE-14683. <https://doi.org/10.1115/DETC2000/CIE-14683>
226. Brasoveanu, D. and Gupta, A. K.: Enhanced Methane-Air Mixing using Shock and Expansion Waves, Proc. ASME Computers and Information in Engineering Conference, Baltimore, MD, September 11-14, 2000, Paper No. DETC2000/CIE-14678. Also presented at 39th AIAA ASM, Reno, NV, January 2001, Paper AIAA 2001-0203. <https://doi.org/10.1115/IMECE2000-1652>
227. Kitagawa, K. Kubota, M., Arai, N., and Gupta, A. K.: Profiling REDOX Index During Combustion by Chemical Seeding and Application to Monitoring of Degradation of C/C Composite in a Flame, 39th AIAA Aerospace Sciences Meeting, Reno, NV, January 8-11, 2001, Paper No. AIAA 2001-1113. <https://doi.org/10.2514/6.2001-1113>
228. Jinno, D., Gupta, A. K., and Yoshikawa, K.: Thermal Destruction of Solid Waste, Proc. 26th International Conference on Coal Utilization and Fuel Systems, Sheraton Sand Keys, Clearwater, FL, March 5-8, 2001. <https://doi.org/10.1115/1.2793861>
229. Wang, Y, and Gupta, A. K.: Combustion of Gaseous Fuels with High Temperature Air in Normal- and Micro-Gravity Conditions, NASA Microgravity 6th Combustion Workshop, Cleveland, OH, May 22-24, 2001.
230. Jinno, D., Gupta, A. K. and Yoshikawa, K.: Determination of Chemical Kinetic Parameters of Surrogate Wastes, Proc. Intl. Joint Power Generation Conference (IJPGC), New Orleans, LA, June 3-7, 2001, Paper JPGC2001/FACT-19065. <https://doi.org/10.1115/1.1772407>

231. Archer, S. and Gupta, A. K.: Radial Distribution of Swirl Effects in a Burner on the Thermal Characteristics of Premixed Flames, 37th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Salt Lake City, UT, July 8-11, 2001, Paper No. 2001-3266.
<https://doi.org/10.2514/6.2001-3266>
232. Habibzadeh, B. and Gupta, A. K.: Control of Kerosene Spray Flame Structure from a Swirl Burner, IECEC Conference, Savannah, GA, July 30-Aug. 2, 2001.
<http://dx.doi.org/10.1115/IECEC2001-ES-2001-AT-88>
233. Habibzadeh, B. and Gupta, A. K.: Control of Spray Structure in Spray Combustion, Proc. 14th ONR Propulsion Meeting, Chicago, IL, August 8-10, 2001, pp. 25-31.
234. Habibzadeh, B. and Gupta, A. K.: Control of Kerosene Spray Flame Structure in a Swirl Burner, 15th Intl. Symposium on Airbreathing Engines, Bangalore, India, September 2-7, 2001. <https://doi.org/10.1016/B978-012369394-5/50016-0>
235. Archer, S. and Gupta, A. K.: Swirl Distribution Effects on the Thermal Characteristics of Premixed Flames, ASME Computers and Information in Engineering (CIE) Conference, Pittsburgh, PA, September 9-12, 2001, Paper DETC 2001/CIE-21676.
<https://doi.org/10.1115/DETC2001/CIE-21676>
236. Gupta, A. K.: Technological Evolution, Challenges and Future Prospects for the Application of HiTAC to HiCOT, Invited Lecture at the High Temperature Air Combustion Technology Symposium, Tokyo, Japan, October 11, 2001.
237. Gupta, A. K.: High Temperature Air Combustion: Experiences from the USA-Japan Joint Energy Project, Invited Keynote Lecture at the 4th High Temperature Air Combustion and Gasification Symposium, Rome Italy, November 27-30, 2001.
238. Habibzadeh, B and Gupta, A. K.: Passive Control of Kerosene Spray Flame Structure in a Swirl Burner, Proc. Intl. Conference on Advanced Energy Conference and Related Technologies, RAN 2001, Nagoya, Japan, December 15-17, 2001.
<https://doi.org/10.2514/6.2004-810>
239. Jinno, D. Yoshikawa, K., and Gupta, A. K.: Thermal Destruction Analysis of Surrogate Solid Wastes, Proc. Intl. Conference on Advanced Energy Conference and Related Technologies, RAN 2001, Nagoya, Japan, December 15-17, 2001.
<https://doi.org/10.4271/929224>
240. Jinno, J., Gupta, A. K. and Yoshikawa, K.: Determination of Kinetic Parameters during the Thermal Decomposition of Key Compounds in Solid Wastes, AIAA Aerospace Sciences Meeting, Reno, NV, January 13-17, 2002, Paper No. 2002-1100.
<https://doi.org/10.2514/6.2002-1100>

241. Gao, Z., Guo, D., Mashayek, F., Habibzadeh, F., Mehresh, P., and Gupta, A. K.: Two-Phase Turbulence Model Evaluation for the Carrier Phase in Swirling and Non-swirling Sprays, AIAA Aerospace Sciences Meeting, Reno, NV, January 13-17, 2002, Paper No. 2002-1085. <https://doi.org/10.2514/6.2002-1085>
242. Jinno, D. Yoshikawa, K., and Gupta, A. K.: Thermal Destruction of Plastic Materials in Solid Wastes, 27th International Conference on Coal Utilization and Fuel Systems, Clearwater, FL, March 4-7, 2002. <https://doi.org/10.1115/1.2793873>
243. Jinno, J. Gupta, A. K. and Yoshikawa, K.: Thermal Decomposition Characteristics of Key Components in Solid Wastes, 21st Intl. Conference on Thermal Treatment Technologies (IT3), New Orleans, LA, May 13-17, 2002. <https://doi.org/10.1089/109287504322746767>
244. Habibzadeh, B., Mehresh, P., and Gupta, A. K.: Passive Control of Liquid Fuel Spray Flames using a Swirl Burner, Intl. Joint Power Generation Conference (IJPGC), Phoenix, AZ, June 24-26, 2002, Paper No. IJPGC2002-26146. <https://doi.org/10.1115/DETC2002/CIE-34446>
245. Gupta, A. K. and Habibzadeh, B.: Role of Combustion Air Swirl in a Burner on Secondary Atomization of Droplets, Proc. IECEC conference, Washington, DC, July 28-August 1, 2002. <https://doi.org/10.1109/IECEC.2002.1392054>
246. Habibzadeh, B. and Gupta, A. K.: Swirl Effects on Flow Dynamics and Fuel Spray Droplet Transport in Practical Combustors, ASME Computers and Information in Engineering Conference, Montreal, Canada, September 30-October 3, 2002, paper No. DETC2002/CIE-34446. <https://doi.org/10.1115/DETC2002/CIE-34446>
247. Itoh, Y., Gupta, A. K., Yoshikawa, K., and Shimo, N.: Combustion Characteristics of Low Calorific Value Gas with High Temperature and Low-Oxygen Concentration Air, Proc. 5th High Temperature Air Combustion and Gasification (5th HTACG), Yokohama, Japan, October 28-31, 2002.
248. Gupta, A. K.: Flame Length and Ignition Delay during the Combustion of Acetylene in High Temperature Air, Invited paper, Proc. 5th High Temperature Air Combustion and Gasification (5th HTACG), Yokohama, Japan, October 28-31, 2002. <https://doi.org/10.1115/1.1610009>
249. Ghaderi, M. and Gupta, A. K.: Characteristics of Gaseous Diffusion Flames with High Temperature Combustion Air, 41st AIAA Aerospace Sciences Meeting, Reno, NV, January 6-9, 2003, paper No. AIAA-2003-0340. <https://doi.org/10.2514/6.2003-1152>

250. Ghaderi, M. and Gupta, A. K.: Characteristics of Gaseous Diffusion Flames with High Temperature Combustion Air in Microgravity, 41st AIAA Aerospace Sciences Meeting, Reno, NV, January 6-9, 2003, Paper No. AIAA-2003-1152.
251. Gupta, A. K. and Lilley, D. G.: Incineration of Plastics and Other Wastes for Efficient Power Generation: A Review, AIAA Aerospace Sciences Meeting, Reno, NV, January 6-9, 2003, Paper No. AIAA-2003-0334. <https://doi.org/10.2514/6.2003-334>
252. Archer, S. and Gupta, A. K.: Effect of Swirl and Combustion on Flow Dynamics in Lean Direct Injection Gas Turbine Combustion, 41st AIAA Aerospace Sciences Meeting, Reno, NV, January 6-9, 2003, paper No. AIAA-2003-1343. <https://doi.org/10.2514/6.2003-1343>
253. Linck, M. and Gupta, A. K.: Effect of Swirl and Combustion on Flow Dynamics in Luminous Kerosene Spray Flames, 41st AIAA Aerospace Sciences Meeting, Reno, NV, January 6-9, 2003, paper No. AIAA-2003-1345. <https://doi.org/10.2514/6.2003-1345>
254. Gao, Z., Linck, M., Mashayek, F., and Gupta, A. K.: Experimental Results and Calculations of Two-Phase Flow in a Swirl Burner Under Isothermal Condition, 41st AIAA Aerospace Sciences Meeting, Reno, NV, January 6-9, 2003, paper No. AIAA-2003-0336. <http://dx.doi.org/10.2514/6.2003-336>
255. Kajimoto, T., Yamada, E., Shinoda, M., Kitagawa, K., and Gupta, A. K.: Analysis of Flame Structure by Planar Laser-Induced Fluorescence using Isotope Shift of OH and OD Radicals, Electric Power Conference, Houston, TX, March 3-6, 2003. <https://doi.org/10.1016/j.microc.2012.09.004>
256. Taki, H., Asai, H., Kitagawa, K., and Gupta, A. K.: Spatially Resolved Elemental Composition in a Methane-Air Diffusion Flame by Laser Induced Plasma Spectroscopy (LIPS), Electric Power Conference, Houston, TX, March 3-6, 2003.
257. Katoh, A., Shinoda, M., Kitagawa, K., and Gupta, A. K.: Effect of Steam Addition on OH Distribution in a Flame by Isotope Shift/Planar Laser Induced Fluorescence (IS/PLIF), Electric Power Conference, Houston, TX, March 3-6, 2003. <https://doi.org/10.1115/1.2056528>
258. Gupta, A. K. and Linck, M.: Effect of Swirl and Combustion on Flow Dynamics in Kerosene Spray Flames, Proc. 16th ONR Propulsion Meeting, Los Angeles, CA, June 9-11, 2003, pp. 226-232. <https://doi.org/10.2514/6.2003-1345>
259. Gupta, A. K.: High Temperature Air Combustion Technology—Invited Review, AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Huntsville, AL, July 20-23, 2003, Paper No. AIAA-2003-4940. <https://doi.org/10.2514/6.2003-4940>

260. Gupta, A. K. and Linck, M.: Passive Control of Flow and Flame Structure in Spray Combustion, Intl. Colloquium on Combustion Control, Cranfield University, Cranfield, UK, August 12-14, 2003.
261. Linck, M., Armani, M., and Gupta, A. K.: Flow Characteristic Effects on Exhaust Gas Composition in Kerosene Spray Flames, IECEC Conference, Portsmouth, VA, August, 17-21, 2003, Paper AIAA 2003-5929. <https://doi.org/10.2514/6.2003-5929>
262. Archer, S. and Gupta, A. K.: Flow and Chemical Behavior of Swirl Stabilized Lean Direct Injection Gaseous Flames, IECEC Conference, Portsmouth, VA, August 17-21, 2003, Paper No. 2003-5923. <https://doi.org/10.2514/6.2003-5923>
263. Akimoto, F. Tago, T., Kitagawa, K., Arai, N., Churchill, S. W., and Gupta, A. K.: Two-Dimensional Temperature Distributions of the Surface of Heated Materials by Spectroscopic Measurements, IECEC Conference, Portsmouth, VA, August 17-21, 2003, Paper No. 2003-5950. <https://doi.org/10.1115/1.1917889>
264. Archer, S. and Gupta, A. K.: Swirl and Combustion effects on Flow Dynamics in Lean Direct Injection Gas Turbine Combustion, 23rd Computers and Information in Engineering Conference (CIE), Chicago, IL, September 2-6, 2003, Paper DETC2003/CIE-48253. <https://doi.org/10.1115/DETC2003/CIE-48253>
265. Linck, M., Armani, M., and Gupta, A. K.: Passive Control of Unstable Combustion in a Swirl Stabilized Combustor, 42nd AIAA Aerospace Sciences Meeting, Reno, NV, January 5-8, 2004, Paper No. 2004-0810. <https://doi.org/10.2514/6.2004-810>
266. Archer, S., and Gupta, A. K.: Effect of Swirl on Flow Dynamics in Unconfined and Confined Gaseous Fuel Flames, 42nd AIAA Aerospace Sciences Meeting, Reno, NV, January 5-8, 2004, Paper No. 2004-0813. <https://doi.org/10.2514/6.2004-813>
267. Ishizawa, M., Shinoda, M., Yamashita, H., Kitagawa, K., and Gupta, A. K.: Effect of Oscillating Excitation on a Methane Air Diffusion Jet Flame, 42nd AIAA Aerospace Sciences Meeting, Reno, NV, January 5-8, 2004, Paper No. 2004-0815. <https://doi.org/10.2514/6.2004-815>
268. Katoh, A., Oyama, H., Kitagawa, K., and Gupta, A. K.: Time Resolved Analysis of OH Distribution in a Flame by PLIF Spectroscopy, 42nd AIAA Aerospace Sciences Meeting, Reno, NV, January 5-8, 2004, Paper No. 2004-0816. <https://doi.org/10.2514/6.2004-816>
269. Gautam, V. and Gupta, A. K.: Spectroscopic Analysis of Fuel Lean Flames for Propulsion Applications, ASME Power Conference, Baltimore, MD, March 30-April 1, 2004, Paper No. PWR 2004-52074. <https://doi.org/10.1115/POWER2004-52074>

270. Linck, M. D., Armani, M., and A. K. Gupta, A. K.: Effect of Swirl and Fuel Pulsation on Flame Dynamics, Flame Structure, and Droplet Dynamics in Swirl Stabilized Spray Flames, ASME Power Conference, Baltimore, MD, March 30-April 1, 2004, Paper No. PWR 2004-52048. <https://doi.org/10.1115/POWER2004-52048>
271. Ghaderi, M., and Gupta, A. K.: Spectroscopic Analysis of Diffusion Flame using High Temperature Air, ASME Power Conference, Baltimore, MD, March 30-April 1, 2004, Paper No. PWR 2004-52179. <https://doi.org/10.1115/POWER2004-52179>
272. Archer, S., and Gupta, A. K.: Flow Dynamics of Unconfined and Confined Swirl Stabilized Gaseous Flames, ASME Power Conference, Baltimore, MD, March 30-April 1, 2004, Paper No. PWR 2004-52079. <https://doi.org/10.1115/POWER2004-52079>
273. Mortberg, M., Blasiak, W. and Gupta, A. K.: Combustion of Low Calorific Fuels in High Temperature Oxygen Deficient Environment, IT3 Conference, Phoenix, AZ, May 10-14, 2004. <https://doi.org/10.1080/00102200500325280>
274. Archer, S., and Gupta, A. K.: The Role of Confinement on Flow Dynamics under Fuel Lean Combustion Conditions, IECEC Conference, Providence, RI, August 16-19, 2004, AIAA Paper No. 2004-5617. <https://doi.org/10.2514/6.2004-5617>
275. Linck, M. D. and Gupta, A. K.: Dynamics of Unconfined and Confined Methanol and Kerosene Spray Flames, Proc. IECEC Conference, Providence, RI, August 16-19, 2004, AIAA Paper No. 2004-5503. <https://doi.org/10.2514/6.2004-5503>
276. Gupta, A. K., and Archer, S: Confinement Effects on the Dynamics of Swirl Stabilized Gaseous Fuel Flames, Invited Lecture at National Heat Transfer Society of Japan Conference, Toyama, Japan, May, 26-28, 2004. <https://doi.org/10.1115/PWR2005-50167>
277. Gupta, A. K. and Linck, M: Combustion Control of Spray Flames for Underwater Propulsion Application, 17th ONR Propulsion Conference, MIT, Cambridge, MA, June 16-18, 2004.
278. Lilley, D. G. and Gupta, A. K.: Combustion Efficiency and θ -Parameter in the Design and development of Gas Turbine Combustors, 40th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Ft. Lauderdale, FL, July 11-14, 2004, Paper No. AIAA-2004-3543. <https://doi.org/10.2514/6.2004-3543>
279. Selezenev, A.A., Berezhko, P.G., Proskudin, V.F., Yaroshenko, V.V., Potapin, V.I., Gladchenko, V.L., and Gupta, A. K.: The Influence of Ionization radiation Dose Rate on the Ignition Temperature of Hydrogen-Air Gas Mixtures, 30th Symposium (Intl.) on Combustion, The Combustion Institute, Chicago, IL, July 26-30, 2004.

280. Archer, S. and Gupta, A. K.: Flow Dynamics under Confined and Unconfined Confinement Combustion Conditions, Proc. ASME Computers in Engineering Conference, Salt Lake City, UT, Sep 28-October 1, 2004, Paper No. DETC-2004-57732. <https://doi.org/10.1115/POWER2004-52079>
281. Mortberg, M. Gupta, A. K., and M., Blasiak, W.: Flow Phenomena of Normal and Low Calorific Value Fuels in High Temperature Air Combustion Conditions, AFRC/JFRC Joint Fall Symposium, Maui, Hawaii, October 10-14, 2004. <https://doi.org/10.1115/1.2436558>
282. Lilley, D. G., and Gupta, A. K.: Lateral Fuel Jet Injection into Swirling Cross Flow for Improved Mixing and Combustion, AFRC/JFRC Joint Fall Symposium, Maui, Hawaii, October 10-14, 2004.
283. Mochida, S., Araake, T., Hasegawa, T. and Gupta, A. K.: Invisible HiTAC-flame Control for Improving Steam Reformer Heating Performance using Flame Ionization Monitoring Technique, AFRC/JFRC Joint Fall Symposium, Maui, Hawaii, October 10-14, 2004.
284. Archer, S., and Gupta, A. K.: Confinement Effects on Flow and Combustion under Fuel Lean Conditions, ASME Mechanical Engineering Congress and Exposition (IMECE), Anaheim, CA, November 15-19, 2004, Paper No. IMECE 2004-60930. <https://doi.org/10.1115/PWR2005-50167>
285. M. Mörtberg, M. Gupta, A. K. and Blasiak, W.: Lateral Fuel Jet Injection into High Temperature and Oxygen Deficient Condition, Proc. International Conference on Sustainable Energy and Environment, Hua Hin (Bangkok), Thailand, Dec. 1-3, 2004.
286. Gupta, A. K.: Clean Energy Production from Wastes and Plastics, Invited Plenary Lecture, Proc. International Conference on Sustainable Energy and Environment, Hua Hin, Bangkok, Thailand, December 1-3, 2004.
287. Katoh, A., Oyama, H, Kitagawa, K. and A. K. Gupta: Isotope Shift/Planar Laser Induced Fluorescence Diagnostics for Examining Hydrogen-Methane Flames, 43rd AIAA Aerospace Sciences Meeting, Reno, NV, January 10-13, 2005, Paper No. 2005-0376. <https://doi.org/10.2514/6.2005-376>
288. Linck, M. and Gupta. A. K.: Exhaust Plume Characteristics of a Simulated Underwater Propulsion System, 43rd AIAA Aerospace Sciences Meeting, Reno, NV, January 10-13, 2005, Paper No. 2005-0956. <https://doi.org/10.1016/j.apenergy.2011.07.022>
289. Gautam, V. and Gupta, A. K.: Thermal Field Analysis of Hydrocarbon Flames for Propulsion and Power Applications, 43rd AIAA Aerospace Sciences Meeting, Reno, NV, January 10-13, 2005, Paper No. AIAA-2005-1445. <https://doi.org/10.2514/6.2005-1445>

290. Archer, S. and Gupta, A. K.: Confinement Effects on Flow Dynamics in Swirling Flames, Proc. ASME Power Conference, Chicago, IL, April 5-7, 2005, Paper No. ASME PWR2005-50167. <https://doi.org/10.1115/PWR2005-50167>
291. Jangsawang, W. and Gupta A. K.: Kinetics and Simulation of Biomass Wastes using Pyrolysis and Gasification, 30th International Conference on Coal Utilization and Fuel Systems, Clearwater, FL, April 17-21, 2005.
292. Jangsawang, W., Klimanek, A. and Gupta, A. K.: Experiments for Enhanced Yield of Hydrogen from Wastes using High Temperature Steam Gasification, 24th Intl. Conference on Incineration and Thermal Treatment Technologies (IT3), Galveston, TX, May 9-13, 2005. <https://doi.org/10.1115/1.2134733>
293. Mortberg, M., Blasiak, W. and Gupta, A. K.: Effect of Fuel Property on Flame Characteristics under High Temperature Air Combustion Conditions, 24th Intl. Conference on Incineration and Thermal Treatment Technologies (IT3), Galveston, TX, May 9-13, 2005. <https://doi.org/10.1115/1.1610009>
294. Gautam, V. and Gupta, A. K.: Simulation of Mixing in Rocket Engine Injectors under in-space Conditions, 41st AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Tucson, AZ, July 10-13, 2005, Paper No. 2005-3571. <https://doi.org/10.2514/6.2005-3571>
295. Mochida, S., Araake, T., Hasegawa, T. and Gupta, A. K.: Invisible-HiTAC-flame Control for Improving Steam Reformer Heating Performance using Flame Ionization Technique, ISETS Conference, Nagoya, Japan, August 8-9, 2005.
296. Gupta, A. K.: Thermal Destruction of Wastes for Clean Energy Production, Plenary Lecture, International Conference on EcoTopia Science (ISETS05), Nagoya University, Nagoya, Japan, August 8-9, 2005. <https://doi.org/10.1002/0471721557.ch15>
297. Linck, M. and Gupta, A. K. Effect of Pressure on Fuel Spray and Flame Structure in a Swirl-Stabilized Combustor, IECEC Conference, San Francisco, CA, August 15-18, 2005. <https://doi.org/10.2514/6.2005-5535>
298. Mortberg, M., Blasiak, W., and Gupta, A. K.: Dynamics of a Fuel Jet Injected into Cross Stream of High Temperature and Oxygen Deficient Air, IECEC Conference, San Francisco, CA, Aug., 15-18, 2005, Paper 2005-5523. <https://doi.org/10.2514/6.2005-5523>
299. Gupta, A., K.: Clean Energy Conversion from Wastes, Proc. 19th International Symposium on Combustion Processes, Wisla, Poland, Aug. 30-Sep. 2, 2005, pp. 41-62.
300. Rafidi, N., Blasiak, W. and Gupta, A. K.: High Temperature Air Combustion and its Thermodynamics, XIX National Congress of Thermodynamicist, Sopot, Poland, September 5-8, 2005, pp. 43-56. <https://doi.org/10.1115/1.2795757>

301. Gupta, A. K.: Challenges and Opportunities for Solid Wastes- Invited presentation, ASME Computers and Information in Engineering (CIE) Conference, Long Beach, CA, September 24-28, 2005, Paper No. DETC2005/CIE-84607. <https://doi.org/10.1115/DETC2005-84607>
302. Cichonski, W., and Gupta, A. K.: Hydrogen Generation from Wastes using Ultra-High Temperature Steam Gasification, Proc. 6th Intl. Conference on High Temperature Air Combustion and Steam Gasification (HTACG), Essen, Germany, Oct. 17-19, 2005. <https://doi.org/10.1115/1.2134733>
303. Mörtberg, M., Blasiak, W. and Gupta, A. K.: Flameless Combustion of Methane Fuel Jet injected into Transverse High Temperature Air Flow, Proc. 6th Intl. Conference on High Temperature Air combustion and Steam Gasification (HTACG), Essen, Germany, Oct. 17-19, 2005. <https://doi.org/10.2514/6.2005-5523>
304. Archer, S. and Gupta, A. K.: Flow Dynamics of Unconfined Swirling Flames under Fuel-Lean Condition, ASME Intl. Mechanical Engineering Congress, Nov. 7-11, 2005, Paper No. 2005-83137. <https://doi.org/10.1115/POWER2006-88114>
305. Linck, M. and Gupta, A. K., Bourhis, G., and Yu, K: Combustion Characteristics of Pressurized Swirling Spray Flame and Unsteady Two-Phase Exhaust Jet, 44th AIAA Aerospace Sciences Conference, Reno, NV, January 9-12, 2006, Paper No. AIAA 2006-0377. <https://doi.org/10.2514/6.2006-377>
306. Gautam, V. and Gupta, A. K.: Simulation of Flow, Mixing and Ignition of a Rocket Injector, 44th AIAA Aerospace Sciences Conference, Reno, NV, January 9-12, 2006, Paper No. AIAA 2006-1160. <https://doi.org/10.2514/6.2005-3571>
307. Katoh, K., Kitagawa, K. and Gupta, A. K.: Examination of Methane-Hydrogen Mixture Flame Using Isotope Shift/PLIF Spectroscopy, 44th AIAA Aerospace Sciences Conference, Reno, NV, January 9-12, 2006, Paper No. AIAA 2006-0376. <https://doi.org/10.2514/6.2006-376>
308. Gupta, A. K.: Developments in High Temperature Air Combustion (Flameless Oxidation) and Fuel Reforming, Invited lecture, 44th AIAA Aerospace Sciences Conf., Reno, NV, January 9-12, 2006. Paper No. AIAA 2006-1498. <https://doi.org/10.2514/6.2006-1498>
309. Young, G., Balar, R., Gupta, A. K., Yu, K., and Kothari, A.P.: Characterization of Scramjet Combustor with Transverse Fuel Injection, 44th AIAA Aerospace Sciences Conference, Reno, NV, January 9-12, 2006. Paper No. AIAA 2006-1377. <https://doi.org/10.2514/6.2006-1377>
310. Archer, S. and Gupta, A. K. Kitagawa, K.: Flow Dynamics of Unconfined Swirling Flames under Fuel-Lean Conditions, Electric Power Conference, Atlanta, GA, May 2-4, 2006, Paper No. ASME PWR 2006-88114. <https://doi.org/10.1115/POWER2006-88114>

311. Cichonski, W. and Gupta, A. K.: Ultra-High Temperature Steam Gasification of Solid Wastes, 25th Intl Conference on Incineration and Thermal Treatment Technologies (IT3), Savannah, GA, May 15-19, 2006. <https://doi.org/10.1089/ees.2007.0120>
312. Yu, M., Bryden, M. and Gupta, A. K.: Developing a Program to Examine the Application of High Density Sensor Networks for Power Plants, 30th International Conference on Coal Utilization and Fuel Systems, Clearwater, FL, Clearwater, FL, May 21-25, 2006.
313. Linck, M., Gupta, A. K. and Yu, K.: Combustion Behavior and Two-Phase Flow Instabilities in Exhaust Jet During Submerged Combustor Operation, 4th IECEC Conference, San Diego, CA, June 26-29, 2006, Paper No. AIAA-2006-4142. <https://doi.org/10.2514/1.35724>
314. Gautam, V. and Gupta, A. K.: Cryogenic Flow and Mixing from a Single Element Coaxial Rocket Injector, AIAA/ASME/SAE/ASEE 42nd Joint Propulsion Conference, Sacramento, CA, July 9-12, 2006, Paper No.2006-4529. <https://doi.org/10.2514/6.2006-4529>
315. Balar, R., Young, G., Pang, B., Gupta, A. K., Yu, K. and Kothari, A.: Comparison of Parallel and Normal Fuel Injection in a Supersonic Combustor, AIAA/ASME/SAE/ASEE 42nd Joint Propulsion Conference, Sacramento, CA, July 9-12, 2006, Paper No.2006-4442. <https://doi.org/10.2514/6.2006-4442>
316. Archer, S. and Gupta, A. K.: Behavior of Unconfined Swirling Flames under Fuel-Lean Conditions using Particle Image Velocimetry, 26th Computers and Information in Engineering (CIE) Conference, Philadelphia, PA, Sep 10-13, 2006, Paper No. DETC/CIE-2006-99132. <https://doi.org/10.1115/DETC2006-99132>
317. Jangsawang, W. and Gupta, A. K.: Experiences from Two Stage Thermal Destruction of Infectious Waste using Calculations and Experiments, Proc. Intl. Conference on Combustion, Incineration/Pyrolysis and Emission Control (4thICIPEC), September 26-29, 2006. Kyoto, Japan
318. Jangsawang, W. and Gupta, A. K., Kitagawa, K. and Lee, S.C: High Temperature Steam and Air Gasification of Non-Woody Biomass Wastes, Sustainable Energy and Environment Conference, JGSEE, Bangkok, Thailand, November 21-23, 2006.
319. Gautam, V. and Gupta, A. K.: Flow Instability and Mixing from a Coaxial Rocket Injector using Cryogenic Fluid, 45th AIAA Aerospace Sciences Conference, Reno, NV, January 8-11, 2007, Paper No. AIAA 2007-1160. <https://doi.org/10.2514/1.19731>
320. Kim, H. S., Arghode, V., and Gupta, A. K.: Flame Characteristics of Hydrogen-Enriched Methane-Air Premixed Swirling Flames, 45th AIAA Aerospace Sciences Conference, Reno, NV, January 8-11, 2007, Paper No. 2007-0602. <https://doi.org/10.2514/6.2007-602>

321. Abdelhafez, A. and Gupta, A. K.: Interaction of Gaseous Fuel Jet with Shock-Wave-Rich Air Flow, 45th AIAA Aerospace Sciences Conference, Reno, NV, January 8-11, 2007, Paper No. 2007-0390. <https://doi.org/10.2514/6.2007-390>
322. Balar, R., Gupta, A. K., Yu, K. H., and Khotari, A.P.: Pylon-Aided Fuel Injection into Supersonic Flow, 45th AIAA Aerospace Sciences Conference, Reno, NV, January 8-11, 2007, Paper No. 2007-0834. <https://doi.org/10.2514/6.2007-834>
323. Bruzynski, R., Kriengsak, S-N, Gmurczyk, J. and Gupta, A. K.: Hydrogen Production by High Temperature Steam Gasification of Coal and Biomass, Intl. Incineration and Thermal Treatment Technologies (IT3) Conference, Phoenix, AZ, May 14-18, 2007. <https://doi.org/10.1089/ees.2008.0246>
324. Sangtongam, K. S., Bruzynski, R., Gmurczyk, J. and Gupta, A. K.: Hydrogen Production by High Temperature Steam Gasification of Biomass, EPC Conference, Chicago, IL, May 1-3, 2007.
325. Yu, M., Gupta, A. K. and Bryden, M.: Sensors Response and Their Interpretation from a Practical Combustor, 31st International Conference on Coal Utilization and Fuel Systems, Clearwater, FL, Clearwater, FL, June 11-14, 2007.
326. Linck., M. and Gupta, A. K.: Twin-Fluid Atomization and Novel Lifted Swirl-Stabilized Spray Flames, Proc. 5th IECEC Conference, St Louis, Missouri, June 25-27, 2007, Paper No. AIAA-2007-4142. <https://doi.org/10.2514/1.35723>
327. Prabhakar, P., Choudhuri, A., and Gupta, A. K.: Stability and Emission Characteristics of Swirl Stabilized Blended Fuel Flames, Proc. 5th IECEC Conference, St Louis, Missouri, June 25-27, 2007, Paper No. AIAA-2007-4793. <https://doi.org/10.2514/6.2007-4793>
328. Gautam, V. and Gupta, A. K.: Characterization of Cryogenic Flow from a Coaxial Rocket Injector, 43rdAIAA/ASME/SAE/ASEE Joint Propulsion Conference, Cincinnati, OH, July 8-11, 2007, Paper No. AIAA 2007-5567. <https://doi.org/10.2514/6.2007-5567>
329. Abdelhafez, A. and Gupta, A. K., Balar, R. and Yu, K. H.: Evaluation of Transverse and Oblique Fuel Injection in a Supersonic Combustor, 43rdAIAA/ASME/SAE/ASEE Joint Propulsion Conference, Cincinnati, OH, July 8-11, 2007, Paper No. AIAA 2007-5026. <http://dx.doi.org/10.2514/6.2007-5026>
330. Yu, M., Gupta, A. K. and Bryden, M.: Sensor Response and Sensor Network Development for Practical Combustors, 16th International Conference on Computer Communications and Network, IEEE ICCCN2007 Conference, Honolulu, Hawaii, August 13-16, 2007. <https://doi.org/10.1109/ICCCN.2007.4318005>
331. Kim, H. S., Arghode, V. K. and Gupta, A. K.: Hydrogen Addition Effects on Confined Premixed Swirl Stabilized Methane-Air Flames, ASME CIE/DETC Conference, Las Vegas, Sep 4-7, 2007, Paper No. DETC/CIE 2007-34133.

<https://doi.org/10.1016/j.ijhydene.2008.10.034>

332. Gupta, A. K.: High Temperature Air Combustion and Fuel Reforming, 5th Mediterranean Combustion Symposium, Invited Plenary Speaker, Monastir, Tunisia, September 10-13, 2007. <https://doi.org/10.2514/6.2006-1498>
333. Sassi, M., BenRejab, S., and Gupta, A. K.: CFD Simulation of Combustion in the Claus Furnace of a Sulfur Recovery Plant, 5th Mediterranean Combustion Symposium (MCS-5), Monastir, Tunisia, September 9-13, 2007. <https://doi.org/10.3844/ajessp.2008.502.511>
334. Gupta, A. K.: High Temperature Air Combustion: Energy Savings, Pollution Reduction and Fuel Reforming, Invited Keynote paper, AFRC/JFRC Int'l Symposium, Waikoloa, Hawaii, Oct. 22-24, 2007. <https://doi.org/10.1201/9781420041033>
335. Abe, T., Mochida, S., Yasuda, T. and Gupta, A. K.: Advanced Gasification Technology for Biomass and Plastics using Super High Temperature Steam, AFRC/JFRC Int'l Symposium Waikoloa, Hawaii, Oct. 22-24, 2007. Full article pdf r-t3-11.pdf.pdf (energy-2030.com)
336. Ahmed, I., Noosai, N. and Gupta, A. K.: Behavior of Syngas Evolution during High Temperature Steam Gasification of Cardboard, Intl. Symposium on EcoTopia Science, ISET 07, Nagoya, Japan, November 23-25, 2007. <https://doi.org/10.2514/6.2008-1145>
337. Sangtongam, K. Gmurczyk, J. and Gupta, A. K.: Parameters Influencing Clean Syngas Production from Biomass, Solid Wastes, and Coal during Steam Gasification, Invited Keynote Lecture, Intl. Symposium on EcoTopia Science, ISET 07, Nagoya, Japan, November 23-25, 2007.
338. Argode, V. and Gupta, A.K.: Nozzle Exit Geometry on Characteristics of Submerged Jet in Underwater Propulsion, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2008, Paper No. AIAA-2008-1158. <https://doi.org/10.2514/6.2008-1158>
339. Gautam, V. and Gupta, A. K.: Cryogenic Liquid Jet Atomization from a Shear Coaxial Injector, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2008, Paper No. 2008-1044. <https://doi.org/10.2514/6.2008-1044>
340. Gautam, V. and Gupta, A. K.: Cryogenic Flow from a Co-Axial rocket Injector Under Low Pressure In-Space Propulsion Conditions, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2008, Paper No. 2008-1456. <https://doi.org/10.2514/6.2008-1456>
341. Ahmed, I., Noosai, N. and Gupta, A. K.: Parameters Influencing Syngas Production from Biomass using Steam Gasification, 46th AIAA Aerospace Sciences Conference, Reno, NV, Jan. 7-10, 2008, Paper No. AIAA-2008-1144. <https://doi.org/10.2514/6.2008-1144>
342. Ahmed, I., Noosai, N. and Gupta, A. K.: Thermal Effectiveness of Transient Gasification

- in a Semi-Batch Reactor, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2008, Paper No. AIAA-2008-1145. <https://doi.org/10.2514/6.2008-1145>
343. Abdelhafiz, A. and Gupta, A.K.: Numerical Investigation of Oblique fuel Injection in Supersonic Combustors, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2008, AIAA-2008-0068. <https://doi.org/10.2514/6.2008-68>
 344. Abdelhafiz, A. and Gupta, A. K.: Mixture Fraction Measurement in the Flowfield from a Coaxial Injector, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2008, Paper 96021. Paper No. AIAA-2008-0954. <https://doi.org/10.2514/6.2008-954>
 345. Vijayam, V. Choudhari, A, and Gupta, A. K.: Combustion and Heat Transfer Behavior in Mesoscale Systems, 46th AIAA Aerospace Sciences Conference, Reno, NV, January 7-10, 2007, Paper No. AIAA -2008-1138. <https://doi.org/10.2514/6.2008-1138>
 346. Ahmed, I., Noosai, N. and Gupta, A. K.: Parameters Influencing Clean Syngas Production from Biomass, Solid Wastes, and Coal during Pyrolysis and Steam Gasification, 7th Intl. High Temperature Air Combustion and Gasification Conference, 7th HTACG, Phuket, Thailand, January 13-16, 2008.
 347. Arghode, V., and Gupta, A.K.: Numerical Simulations for CDC Combustor development, 7th Intl. Symposium on High Temperature air Combustion and Gasification, Phuket, Thailand, January 13-16, 2008.
 348. Ahmed, I. Noosai, N. and A. K. Gupta, A. K.: Hydrogen Production from Waste and Biomass, 10th Electric Power Conference, Baltimore, MD, May 6-8, 2008.
 349. Sangtongam, K. and Gupta, A. K.: Devolatilization Kinetics and Volatiles Evolution from Sold Fuels, 10th Electric Power Conference, Baltimore, MD, May 6-8, 2008.
 350. Ahmed, I., Noosai, N. and Gupta, A. K.: Effect of Sample Compactness on Syngas Properties and Yield, 27th Intl. Incineration and Thermal Treatment Technologies (IT3) Conference, Montreal, Canada, May 12-15, 2008.
 351. Ahmed, I, and Gupta, A. K.: Gasification of Cardboard and Paper with CO₂, Proc. 33rd Intl. Conference on Coal Utilization and Fuel Systems, Clearwater, FL, June 1-5, 2008. <https://doi.org/10.1016/j.apenergy.2009.04.002>
 352. Ahmed, I., Noosai, N. and Gupta, A. K.: Steam Gasification of Cardboard Biomass Waste, Proc. 33rd Intl. Conference on Coal Utilization and Fuel Systems, Clearwater, FL, June 1-5, 2008.
 353. Jacobus, H., Yu, M. Bryden, M and Gupta, A. K.: Synergetic Fiber Optic Sensor Networks for Combustors and Power Plants, Proc. 33rd Intl. Conference on Coal Utilization and Fuel Systems, Clearwater, FL, June 1-5, 2008.

354. Abdelhafiz, A. and Gupta, A. K.: Swirl Effects on Shock Structure in Free Under-Expanded Supersonic Nozzle Airflow, 44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, East Hartford, CT, July 21-23, 2008, Paper No. AIAA-2008-4502. <https://doi.org/10.2514/6.2008-4502>
355. Gautam, V. and Gupta, A. K.: Fate of Cryogenic Fluid Flow and Atomization Characteristics from a Shear Coaxial Injector under Pre-ignition Condition, 44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, East Hartford, CT, July 21-23, 2008, Paper No. AIAA-2008-5024. <https://doi.org/10.2514/6.2008-5024>
356. Ahmed, I., Noosai, N. and Gupta, A. K.: Gasification of Paper and Cardboard with CO₂ as Gasifying Agent, IECEC Conference, Cleveland, OH, July 28-30, 2008, Paper No. AIAA-2008-5645. <https://doi.org/10.2514/6.2008-5645>
357. Vijayan, V. and Gupta, A. K.: Experimental Investigation of a High Power Density Ceramic Mesoscale Combustor, IECEC Conference, Cleveland, OH, July 28-30, 2008, Paper No. AIAA-2008-5660. <https://doi.org/10.2514/6.2008-5660>
358. Selim, H., Gupta, A. K. and Sassi, M.: Acid Gas Composition Effects on the Reactor Temperature in Claus Reactor, 6th International Energy Conversion Engineering Conference (6th IECEC), Cleveland, OH, July 28-30, 2008, Paper No. AIAA-2008-5797. <https://doi.org/10.2514/6.2008-5797>
359. Tsukamoto, K., Arghode, V., Oshimo, N. and Gupta, A. K.: Experiments and Calculations with Hydrogen Addition in a Methane-Air Premixed Swirling Flame, IECEC Conference, Cleveland, OH, July 28-30, 2008, Paper No. AIAA-2008-5744. <https://doi.org/10.1016/j.ijhydene.2008.10.034>
360. Sangtongam, K. and Gupta, A. K.: Kinetics of Biomass and Waste during Pyrolysis and Gasification, ASME Computers and Information in Engineering, New York, NY, August, 3-6, 2008, Paper DETC 2008-49376. <https://doi.org/10.1115/DETC2008-49376>
361. Mochida, S., Yasuda, T., Tanizawa, K., Nakazawa, T., and Gupta, A. K.: Advanced Steam Gasification Technology for Plastic Wastes using High Temperature Steam, i-CIPEC Conference, Chiang Mai, Thailand, December 16-18, 2008.
362. Kim, H. S., Arghode, V. K. and Gupta, A. K.: Flame Characteristics of Hydrogen-Enriched Methane-Air Premixed Swirling Flames, i-CIPEC Conference, Chiang Mai, Thailand, December 16-18, 2008. <https://doi.org/10.2514/6.2007-602>
363. Arghode, V., Gupta, A. K. and Yu, K. H.: Colorless Distributed Combustion (CDC): Effect of Flowfield Configuration, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009, Paper No.: AIAA 2009-0253. <https://doi.org/10.2514/6.2009-253>
364. Vijayan, V. and Gupta, A. K.: Combustion and Heat Transfer Behavior in Mesoscale Systems, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009,

Paper No.: AIAA 2009-0443. <https://doi.org/10.1016/j.apenergy.2010.03.011>

365. Vijayan, V. and Gupta, A. K: Heat Transfer Comparison between Archimedean and Rectangular Spiral Heat Exchangers for Mesoscale Combustor Application, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009, Paper No. AIAA 2009-0254. <https://doi.org/10.2514/6.2009-254>
366. Ahmed, I. and Gupta, A. K.: Pyrolysis and Steam Gasification of Paper, AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009, Paper No. AIAA 2009-1393. <https://doi.org/10.2514/6.2009-1393>
367. Selim, H., Gupta, A. K. and Sassi, M.: Reduced Mechanism for Hydrogen Sulfide Oxidation, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009, Paper No. AIAA-2009-1392. <https://doi.org/10.2514/6.2009-1392>
368. Abdelhafez, A and Gupta, A. K.: Swirl Effects on Shock Structure and Mixing in Free Underexpanded Supersonic Airflow, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009. Paper No. AIAA 2009-1646. <https://doi.org/10.2514/6.2009-1646>
369. Abdelhafez, A and Gupta, A. K.: Swirl Effects on Mixing in Free Under-Expanded Supersonic-Nozzle Airflow, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009, Paper No.: AIAA 2009-1419. <https://doi.org/10.2514/6.2009-1419>
370. Tsukamoto, K and Gupta, A. K.: Large Eddy Simulation of Spray Injection for Direct Injection Gasoline Engine, 47th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2009, Paper No. AIAA 2009-0668. <https://doi.org/10.2514/6.2009-668>
371. Ahmed, I., Gupta, A. K and Mochida, S.: Steam Gasification of Solid Waste Materials into Clean Fuels in Lab-Scale and Demonstration Plant, 11th EPC Conference, Chicago, IL, May 12-14, 2009.
372. Molintas, H. and Gupta, A. K.: Thermal Decomposition of Cardboard Wastes using Steam Gasification, Proc. Intl. Conference on Incineration and Thermal Treatment Technologies (IT3), Cincinnati, OH, May 18-20, 2009.
373. Ahmed, I. and Gupta, A. K.: Gasification of Char from Biomass Wastes with Carbon Dioxide, 34th Intl. Technical Conference on Coal Utilization & Fuel Systems, Clearwater, FL, May 31-June 4, 2009.
374. Arghode, V., Yu, K. H. and Gupta, A. K.: Effect of Confinement on Colorless Distributed Combustion for Gas Turbine Application, AIAA 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Denver, CO, August 2-5, 2009, Paper No. AIAA 2009-5244. <https://doi.org/10.2514/6.2009-4924>
375. Vijayan, V. and Gupta, A. K.: Chemiluminescence Study of Propane-Air Flame inside a

- Mesoscale Combustor, 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Denver, CO, August 2-5, 2009, Paper No. AIAA 2009-5245. <https://doi.org/10.2514/6.2009-5245>
376. Abdelhafez, A. and Gupta, A. K.: Effect of Mode Transition on Flow Structure and Mixing in Transonic Airflow, 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Denver, CO, August 2-5, 2009, Paper No. AIAA 2009-5164. <https://doi.org/10.2514/6.2008-4502>
 377. Selim, H., Gupta, A. K. and Sassi, M.: Mixing of Reactants in Claus Process under Non-Reactive Conditions, Intl. Energy Conversion Engineering Conference (IECEC), Denver, CO, August 2-5, 2009, Paper No. AIAA-2009-4506. <https://doi.org/10.2514/6.2009-4506>
 378. Ahmed, I. and Gupta, A. K.: Gasification Kinetics of Food Waste Char, Proc. Intl. Energy Conversion Engineering Conference (IECEC), Denver, CO, August 2-5, 2009, Paper No. AIAA-2009-4505. <https://doi.org/10.2514/6.2009-4505>
 379. Vijayan, V. and Gupta, A. K.: Experimental Investigation of a Mesoscale Liquid Fuel Combustor, 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Denver, CO, August 2-5, 2009, Paper No. AIAA 2009-5244. <https://doi.org/10.2514/6.2009-5244>
 380. Vijayan, V. and Gupta, A. K.: Flame Dynamics of a Mesoscale Combustor, 7th Intl. Energy Conversion Engineering Conference (7th IECEC), Denver, CO, August 2-5, 2009, Paper No. AIAA 2009-4604. <https://doi.org/10.2514/6.2009-4604>
 381. Vijayan, V. and Gupta, A. K.: Thermal Performance of a Mesoscale Heat Regenerating Combustor, 7th Intl. Energy Conversion Engineering Conference (7th IECEC), Denver, CO, August 2-5, 2009, Paper No. 2009-4605. <https://doi.org/10.2514/6.2009-4605>
 382. Arghode, V. and Gupta, A. K.: Investigation of Fuel-Air Mixing Characteristics in Colorless Distributed Combustion (CDC) Mode for Gas Turbine Applications, 19th Intl. Symposium on Air Breathing Engines (ISABE) Conference, September 7-11, 2009, Montreal, Canada. Paper No. 2009-1156.
 383. Abdelhafez, A. and Gupta, A. K.: Choking Criteria, Thrust And Specific Impulse of Swirling Airflow Through Under-expanded Nozzle, Proc. 19th Intl. Symposium on Air Breathing Engines (ISABE) Conference, September 7-11, 2009, Montreal, Canada, Paper No. 2009-1207. <https://doi.org/10.2514/1.47956>
 384. Ahmed, I, Gupta, A. K., and K. Kitagawa.: Chemical Energy Recovery from Polystyrene using Pyrolysis and Gasification, 2nd Intl. Conference on Green and Sustainable Innovation, Chiang Rai, Thailand, Dec. 2-4, 2009. <https://doi.org/10.2514/6.2010-804>
 385. Kitagawa, K, Alif, M. F., Bircan, S. Y, Matsumoto, K, and Gupta, A. K.: Production of Valuable Material by Hydrothermal Reaction of Bio-wastes, 2nd Intl. Conference on Green and Sustainable Innovation, Chiang Rai, Thailand, Dec. 2-4, 2009.

386. Al Amoodi, N., Selim, H., Gupta, A. K., Sassi, M. and Al Shoaibi, A. "Numerical Simulations of the Thermal Stage in Claus Process: Equilibrium and Kinetic Investigation," 48th AIAA Aerospace Sciences Conference, Orlando, FL, January 3-7, 2010, AIAA-2010-1355. <https://doi.org/10.2514/6.2010-1356>
387. Selim, H and Gupta, A. K. and Sassi, M.: Understanding of Chemical Kinetics in the Thermal Stage of Claus Process, 48th AIAA Aerospace Sciences Conference, Orlando, FL, January 3-7, 2010, Paper No. AIAA-2010-1356.
388. Arghode, V. and Gupta, A.K.: Investigation of Diffusion and Premixed Distributed Combustion for GT Application, 48th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2010, Paper No. AIAA-2010-1353. <https://doi.org/10.2514/6.2010-1353>
389. Ahmed, I and Gupta, A. K.: Chemical Energy Recovery from Polystyrene using Pyrolysis and Gasification, 48th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2010, Paper No. AIAA-2010-0804. <https://doi.org/10.2514/6.2010-804>
390. Vijayan, V. and Gupta, A. K.: Thermal Performance of a Mesoscale Liquid Fueled Combustor 48th AIAA Aerospace Sciences Conference, Orlando, FL, January 5-8, 2010, Paper AIAA-2010-1601. <https://doi.org/10.2514/6.2010-1601>
391. Ahmed, I. and Gupta, A. K.: Kinetics of Woodchips Char Gasification with Steam and Carbon Dioxide, 2nd International Conference on Applied Energy (ICAE) Singapore, April 21-23, 2010. <https://doi.org/10.1016/j.apenergy.2010.11.007>
392. Nipattummakul, N. Ahmed, I., Kerdsuwan, S. and Gupta, A. K.: Steam Gasification of Oil Palm Trunk to Clean Syngas, 2nd International Conference on Applied Energy (ICAE) Singapore, April 21-23, 2010. <https://doi.org/10.1016/j.apenergy.2011.08.026>
393. Molintas, H and Gupta, A. K.: Kinetic Study for the Reduction of Residual Char Particles Using Oxygen and Air, IT3 Conference, San Francisco, CA, May 18-20, 2010. <https://doi.org/10.1016/j.apenergy.2010.06.027>
394. Nipattummakul, N. Ahmed, I., Gupta, A. K. and Kerdsuwan, S.: Characteristics of Syngas from Oil Palm Trunk using Pyrolysis and Steam Gasification, 35th Technical Conference on Clean Coal and Fuel systems, Clearwater, FL, June 6-10, 2010. <https://doi.org/10.1016/j.ijhydene.2010.04.102>
395. Arghode, V., and Gupta, A. K: Investigation of Distributed Combustion for Gas Turbine Application: Forward Flow Configuration, ASME Power Conference, Chicago, IL, July 13-15, 2010, Paper No. Power 2010-27287. <https://doi.org/10.1115/POWER2010-27287>
396. Khalil, A. E. E. Arghode, V. K. and Gupta, A. K.: Colorless Distributed Combustion (CDC) with Swirl for Gas Turbine Application, ASME Power Conference, Chicago, IL, July 13-15, 2010, Paper Power 2010-27309. <https://doi.org/10.1115/POWER2010-27309>

397. Arghode, V. and Gupta, A. K.: Investigation of Distributed Combustion for Gas Turbine Application: Reverse Flow Configuration, 46th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Nashville, TN, July 25-28, 2010, Paper No. AIAA 2010-6949. <https://doi.org/10.2514/6.2010-6949>
398. Vijayan, V. and Gupta, A. K.: Effect of Channel Length on Meso-scale Spiral Combustor Performance, Spiral Combustor Performance, 46th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Nashville, TN, July 25-28, 2010, Paper No. AIAA 2010-7065. <https://doi.org/10.2514/6.2010-7065>
399. Islam, I., Nipattummakul, N. and Gupta, A. K.: Evolution of Syngas from Co-gasification of Polyethylene and Woodchips, Proc. IECEC Conference, Nashville, TN, July 25-28, 2010, Paper No. AIAA 2010-6509. <https://doi.org/10.2514/6.2010-6509>
400. Selim, H. Al Shoaibi, A. and Gupta, A. K.: Numerical and Experimental Studies on Mixing and Product Species Distribution in a Claus Reactor, IECEC Conference, Nashville, TN, July 25-28, 2010, Paper No. AIAA 2010-7183. <https://doi.org/10.2514/6.2010-7183>
401. Nipattummakul, N., Islam, I., and Gupta, A. K.: Syngas and Energy Yield from Residual Branches of Oil Palm Tree using Steam Gasification, Proc. IECEC Conference, Nashville, TN, July 25-28, 2010, Paper No. AIAA 2010-6510. <https://doi.org/10.2514/6.2010-6510>
402. Molintas, H and Gupta, A. K.: Mass Transfer and Kinetic Modeling with Air and Oxygen, IECEC Conference, Nashville, TN, July 25-28, 2010, Paper No. AIAA2010-6511. <https://doi.org/10.2514/6.2010-6511>
403. Khalil, E. E. and Gupta, A. K.: Swirl Effects on Distributed Combustion for Near Zero Emission Gas Turbine Application, ASME Computers and Information in Engineering, Conference, Montreal, Canada, August 15-18, 2010, Paper No. DETC/CIE-2010-28136. <https://doi.org/10.1115/DETC2010-28136>
404. Khalil, E., Arghode, V. and Gupta, A. K.: Non-Premixed and Premixed Colorless Distributed Combustion for Gas Turbine Application, ASME Intl. Mechanical Engineering Congress, Vancouver, BC, Canada, November 12-18, 2010, Paper No. IMECE2010-38209. <https://doi.org/10.1115/IMECE2010-38209>
405. Arghode, V. and Gupta, A. K.: Hydrogen Addition Effects on Colorless Distributed Combustion Flames, 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011, Paper No. AIAA 2011-0623. <https://doi.org/10.2514/6.2011-623>
406. Khalil, A., Arghode, V. and Gupta, A. K. Distributed Combustion with Swirl for Gas Turbine application, 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011, Paper No. AIAA 2011-0064. <https://doi.org/10.2514/6.2011-64>

407. Shirsat, V. and Gupta, A. K.: Theoretical Performance and Efficiency of a Meso-Scale Thrust Chamber, 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011 Paper No. AIAA 2011-0521. <https://doi.org/10.2514/6.2012-787>
408. Ahmed, I, and Gupta, A. K.: Particle Size, Porosity and Temperature Effects on Char Conversion, 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011, Paper No. AIAA 2011-0437. <https://doi.org/10.2514/6.2011-437>
409. Selim, H., Al Shoaibi, A. and Gupta, A. K.: Examination of Emission Spectra from Hydrogen Sulfide Flames," 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011, Paper No. AIAA 2011-0440. <https://doi.org/10.2514/6.2011-440>
410. Molintas, H and Gupta, A. K.: Kinetics Study to Reduce Residual Char using Steam with Oxygen and Air Enrichment, 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011, Paper No. 2011-0438. <https://doi.org/10.1016/j.apenergy.2010.06.027>
411. Molintas, H and Gupta, A. K.: Thermal Cracking of Tars in a Continuously Fed Reactor with Steam, DoD Environment, Energy, Sustainability Symposium, New Orleans, LA, Ernest N. Morial Convention Center, May 9-12, 2011. See also IT3 Conference, Jacksonville, FL, May 10-12, 2011, Paper #23. <https://doi.org/10.2514/6.2012-4052>
412. Khalil, E., and Gupta, A. K.: Distributed Combustion with Swirl for Gas Turbine Engine Applications, Intl Conference on Applied Energy, Perugia, Italy, May 10-12, 2011.
413. Khalil, E., and Gupta, A. K.: Distributed Colorless Combustion with Swirl for Gas Turbine Application using Low Calorific Fuel, ASME Power Conference, Denver, CO, July 12-14, 2011, Paper No. Power2011-55109. <https://doi.org/10.1115/POWER2011-55109>
414. Huang, H., Yuan, H., Kobayashi, N., Gupta, A. K., Zuhong, X, Chen, Y., and Kitagawa, K.: Examination of Oxygen-enriched Gasification Process for Municipal Solid Wastes in South China, 7th Intl. Symposium on Coal Combustion (7th ISCC), Harbin, China, July 17-20, 2011.
415. Mochida, S, Abe, T., Yasuda, T. and Gupta, A. K.: Combined Heat and Power System with Advanced Gasification Technology for Biomass Wastes, 7th Intl. Symposium on Coal Combustion (7th ISCC), Harbin, China, July 17-20, 2011.
416. Khalil, E., Arghode, V and Gupta, A. K.: Swirl and Pressure Effects on Colorless Distributed Combustion for Gas Turbine Applications, IECEC Conference, San Diego, CA, August 1-3, 2011, Paper No. AIAA-2011-5528. <https://doi.org/10.2514/6.2011-5528>
417. Ahmed, I and Gupta, A. K.: On the Efficient use of Rubber in Gasification Systems, 9th IECEC Conference, San Diego, CA, August 1-3, 2011, Paper No. AIAA-2011-5666. <https://doi.org/10.2514/6.2011-5666>

418. Quintero Suarez, J. A., Ahmed, I. I. and Gupta, A. K.: Modeling of Time Resolved Syngas Properties of Paper Pyrolysis and Gasification, IECEC Conference, San Diego, CA, August 1-3, 2011, Paper No. AIAA-2011-5667. <https://doi.org/10.2514/6.2011-5667>
419. Selim, H., Al Shoaibi, and A Gupta, A. K.: Spatial Speciation of H₂S Combustion in Methane/Air Mixtures, 9th IECEC Conference, San Diego, CA, August 1-3, 2011, Paper No. AIAA-2011-5668. <https://doi.org/10.2514/6.2011-5668>
420. Molintas, H. and Gupta, A. K.: Non-Isothermal Pyrolysis Kinetics of Municipal Solid Wastes, 9th IECEC Conference, San Diego, CA, August 1-3, 2011, Paper No. AIAA-2011-5669. <https://doi.org/10.2514/6.2011-5669>
421. Arghode, V. and Gupta, A. K.: Performance of High Intensity Colorless Distributed Combustor, 47th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, San Diego, CA, August 1-3, 2011, Paper No. AIAA-2011-5532. <https://doi.org/10.2514/6.2011-5532>
422. Shirsat, V and Gupta, A. K.: Effect of Inlet Channel Aspect Ratio on the Extinction Limits of a Heat-Recirculating Combustor, AIAA Joint Propulsion Conference, San Diego, CA, July 31-August 3, 2011.
423. Khalil, E., Arghode, V. and Gupta, A. K.: Colorless Distributed Combustion for Ultra Low Emission Gas Turbine Applications, ISABE Conference, Gothenburg, Sweden, September 12-16, 2011.
424. Ahmed, I., Nipattummkaul, N., Kerduswan, S., Jangsawang, W. and Gupta, A. K.: Energy Recovery from Pyrolysis and Gasification of Mangrove Biomass, World Renewable Energy Congress (WREC), Bali, Indonesia, October 17-19, 2011. Also presented at 2nd TSME conf., Krabi, Thailand, Oct. 19-21, 2011. <https://doi.org/10.1016/j.apenergy.2011.08.028>
425. Ahmed, I. and Gupta, A. K.: Evolution of Syngas from Rice Husk Pyrolysis and Gasification, Intl. Symposium on EcoTopia Science (ISET) Conference, Nagoya University, Japan, Dec. 9-11, 2011.
426. Gupta, A. K.: Clean Power Production and Role of Renewable Energy, Plenary Lecture at Intl. Symposium on EcoTopia Science (ISET) Conference, Nagoya University, Japan, Dec. 9-11, 2011.
427. Selim, H., Gupta, A. K. and Al Shoaibi, A.: Effect of CO₂ and N₂ Concentration in Acid Gas stream on H₂S Combustion, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012, Paper No. 2012-1000. <https://doi.org/10.1016/j.apenergy.2012.02.072>
428. Ahmed, I. and Gupta, A. K.: Sugarcane Bagasse Gasification: Global Reaction Mechanism of Syngas Evolution, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012, Paper No. 2012-1001. <https://doi.org/10.2514/6.2012-1001>

429. Molintas, H and Gupta, A. K.: Non-Isothermal Elimination of Char from Paper and Cardboard Using Air as Oxidant, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012, Paper No. 2012-1002. <https://doi.org/10.2514/6.2012-1002>
430. Shirsat, V. and Gupta, A. K.: Theoretical Performance and Efficiency of a Meso-Scale Thrust Chamber, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012, Paper No. 2012-0787. <https://doi.org/10.2514/6.2012-787>
431. Khalil, E. E., Gupta, A. K., Bryden, K.M. and Lee, S. C.: Mixture Preparation Effects on Distributed Combustion for Gas Turbine Applications, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012, Paper No. 2012-0930. <https://doi.org/10.2514/6.2012-930>
432. Arghode, V. K. and Gupta, A. K.: Fuel Dilution and Liquid Fuel Operational Effects on Ultra-High Thermal Intensity Distributed CDC Combustor, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012, Paper No. 2012-931. <https://doi.org/10.1016/j.apenergy.2012.02.020>
433. Ahmed, I. and Gupta, A. K.: Lignite Coal Gasification with Focus on Char and Tar Reduction, 36th Clearwater Coal Conference, Clearwater, FL, June 4-7, 2012. <https://doi.org/10.1016/j.apenergy.2012.07.049>
434. Abdul Rahman, H., Jaber, F. A., Arghode, V. K. and Gupta, A. K.: Numerical and Experimental Study of Turbulent Mixing and Reaction in Colorless Distributed Combustion Systems, 48th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Atlanta, GA, July 30-August 1, 2012, Paper No. AIAA-2012-3785. <https://doi.org/10.2514/6.2012-3785>
435. Khalil, E. and Gupta, A. K.: Fuel Flexible Distributed Combustion with Swirl for Gas Turbine Applications, 48th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Atlanta, GA, July 30-August 1, 2012, Paper No. AIAA-2012-4033. <https://doi.org/10.2514/6.2012-4033>
436. Eshaghi, A., Singh, A.V., Yu, M., Bryden, K. M. and Gupta, A. K.: Acoustic Source Localization by TDOA Methods using Microphone Arrays, IECEC Conference, Atlanta, GA, July 30-August 1, 2012, Paper No. AIAA-2012-4096. <https://doi.org/10.2514/6.2012-4096>
437. Selim, H., Al Shoaibi, A. and Gupta, A. K.: Formation of Sulfur Deposits in Hydrogen Sulfide Based Combustion, IECEC Conference, Atlanta, GA, July 30-August1, 2012, Paper No. AIAA-2012-3719. <https://doi.org/10.2514/6.2012-3719>
438. Ahmed, I and Gupta, A. K.: Experiments and Stochastic Simulations of Lignite Coal during Pyrolysis and Gasification, IECEC Conference, Atlanta, GA, July 30-August1, 2012, Paper No. AIAA-2012-3723. <https://doi.org/10.2514/6.2012-3723>

439. Desmira, N., Kitagawa, K., and Gupta, A. K.: In-situ Spectroscopic Monitoring of Jatropa Oil Combustion from a Practical Burner, IECEC Conference, Atlanta, GA, July 30-August 1, 2012, Paper No. AIAA-2012-3717. <https://doi.org/10.2514/6.2012-3717>
440. Molintas, H and Gupta, A. K.: Thermal Cracking of Tars in a Continuously Fed Reactor with Steam, IECEC Conference, Atlanta, GA, July 30-August 1, 2012, Paper No. AIAA-2012-4052. <https://doi.org/10.2514/6.2012-4052>
441. Khalil, A and Gupta, A. K.: Hydrogen Addition Effects on High Intensity Distributed Combustion, Proc. ASME 2012 Power Conference, POWER2012, July 30 - August 3, 2011, Anaheim, CA, Paper No. POWER2012-54089. <https://doi.org/10.1016/j.apenergy.2012.11.004>
442. Khalil, A and Gupta, A. K.: Fuel Flexible Distributed Combustion for Gas Turbine Engines, ASME DETC conference, Proceedings of the ASME 2012 International Design Engineering Technical Conferences, IDETC/CIE 2012, August 12-15, 2012, Chicago, IL, Paper DETC2012-70246. <https://doi.org/10.1016/j.apenergy.2013.04.052>
443. Khalil, A. and Gupta, A. K.: Flowfield effects on Distributed combustion for Clean Gas Turbines, 51st AIAA Aerospace Sciences Meeting, Dallas, TX, Jan 7-10, 2013. Paper AIAA-2013-0874. <https://doi.org/10.2514/6.2013-874>
444. Khalil, A., Gupta, A. K.: Characterization of Swirling Distributed Combustion, IECEC Conference, Jan Jose, CA, July 14-16, 2013. Paper AIAA-2013-3932. <https://doi.org/10.2514/6.2013-3932>
445. Ibrahim, S., H. Selim, Al Shoaibi, A. and Gupta, A. K.: Effect of Toluene on Hydrogen Sulfide Combustion under Claus Condition, IECEC Conference, San Jose, CA, July 14-16, 2013. Paper AIAA-2013-3738. <https://doi.org/10.2514/6.2013-3738>
446. Khalil, A. E. and Gupta, A. K.: Dual Injection Distributed Combustion For Gas Turbine Application, ASME Power Conference, Boston, MA, July 29-August 1, 2013. Paper Power 2013-98080. <https://doi.org/10.1115/1.4025020>
447. Selim, H., Ibrahim, S., AlShoaibi, A. and Gupta, A. K.: Examination of Acid Gas (H₂S and CO₂) Combustion in Hydrogen/Air Flame, ASME Power Conference, Boston, MA, July 29-August 1, 2013. Paper Power 2013-98253. <https://doi.org/10.1115/POWER2013-98253>
448. Ibrahim, S., AlShoaibi, A. and Gupta, A. K.: Effect of Toluene on Hydrogen Sulfide Combustion under Claus Condition, ASME Power conference, Boston, MA, July 29-August 1, 2013. Paper Power 2013-98101. <https://doi.org/10.1115/POWER2013-98101>
449. Leyko, A., and Gupta, A. K.: Temperature and Pressure Effects on Hydrogen Separation from Syngas ASME Power conference, Boston, MA, July 29-August 1, 2013. Paper

- Power 2013-98117. <https://doi.org/10.1115/1.4024028>
450. Wierzbicki, T., Lee, I. and Gupta, A. K.: Thermal Characteristics of Biofuels in a Meso-Scale Heat Recirculating Combustor, ASME Power Conference, Boston, MA, July 29-Aug. 1, 2013. Paper Power 2013-98311. <https://doi.org/10.1016/j.apenergy.2013.12.021>
 451. Khalil, A. E. Yu, K.H. Lewis, M.J. and Gupta, A. K.: Hydrogen Addition Effects on Volume Distributed High Intensity Combustion, ISABE Conference, Pusan Korea, September 9-13, 2013. Paper No. ISABE -213-1525.
 452. Khalil, A. E. and Gupta, A. K.: Butyl Nonanoate as a Future Biofuel for Clean Gas Turbine Engines, AIAA SciTech Forum, Maryland, Jan. 7-11, 2014. Paper No. AIAA 2014-0853. <https://doi.org/10.2514/6.2014-0853>
 453. Khalil, A. E. and Gupta, A. K.: Hydroxyl Radical Distribution for Colorless Distributed Combustion Conditions, AIAA SciTech Forum, Maryland, Jan. 7-11, 2014. Paper No. AIAA-2014-0459. <https://doi.org/10.2514/6.2014-0459>
 454. Ibrahim, S. Al Shoaibi, A., and Gupta, A. K.: Role of Toluene on Hydrocarbon Formation in Thermal Stage of Claus Process, AIAA SciTech Forum, Maryland, Jan. 7-11, 2014, Paper No. AIAA-2014-1068. <https://doi.org/10.2514/6.2014-1068>
 455. Brooks, J. B., Gupta, A.K., Smith, M. S. and Marineau, E.C.: Development of Non-Intrusive Velocity Measurement Capabilities at AEDC Tunnel 9, AIAA SciTech Forum, Maryland, Jan. 7-11, 2014. Paper AIAA-2014-1239. <https://doi.org/10.2514/6.2014-1239>
 456. Abdulrahman, H. F., Jaber, F., and Gupta, A. K.: Large Eddy simulations of Colorless Distributed Combustion Systems, 7th U.S. National Congress on Theoretical and Applied Mechanics, Michigan State University, June 15-20, 2014, Paper F-14-1302.
 457. Wierzbicki, T., Lee, I. and Gupta, A. K.: Catalytic and Non-Catalytic Combustion of Propane in a Meso-Scale Heat Recirculating Combustor, ASME Power Conference, Baltimore, MD, July 28-31, 2014, Paper no. Power2014-32215. <https://doi.org/10.1115/POWER2014-32215>
 458. Scenna, R. and Gupta, A. K.: Soot Formation Reactions Effects in Modeling Thermal Partial Oxidation of Jet A, ASME Power Conference, Baltimore, MD, July 28-31, 2014, Paper no. Power2014-32252. <https://doi.org/10.1115/POWER2014-32252>
 459. Trehan, K., Molintas, H and Gupta, A.K.: Gasification of Wood Pellets in Air and CO₂, ASME Power Conference, Baltimore, MD, July 28-31, 2014, Paper no. Power2014-32230. <https://doi.org/10.1115/POWER2014-32230>
 460. Ibrahim, S. and Al Shoaibi, A. S. and Gupta, A. K.: Xylene Addition Effects to H₂S Combustion under Claus Condition, ASME Power Conference, Baltimore, MD, July 28-31, 2014, Paper no. Power2014-32056. <https://doi.org/10.1016/j.fuel.2015.02.001>

461. Ibrahim, S., Chardonneau, M., Al Shoaibi, A. S. and Gupta, A. K.: Role of Toluene and Carbon Dioxide on Sulfur Recovery Efficiency in Claus Process, ASME Power Conference, Baltimore, MD, July 28-31, 2014, Paper no. Power2014-32055. <https://doi.org/10.1016/j.egypro.2015.07.630>
462. Scenna, R., Dubois, T., and Gupta, A. K.: Chemical Modeling of Thermal Partial Oxidation of a JP8/Jet A Surrogate, 46th Power Sources Conference, Orlando Wyndham Resort, Orlando, FL, June 9-12, 2014.
463. Trehan, K., Molintas, H. and Gupta, A.K.: Gasification of Torrefied and Soft Wood Pellets in Air and CO₂, ASME DETC/CIE Conf., Buffalo, NY, August 17-20, 2014. August 17-20, 2014. DETC2014-34020. <https://doi.org/10.1115/DETC2014-34020>
464. Rafidi, N., Blasiak, W. and Gupta, A. K.: High Temperature Air Combustion (HiTAC) Phenomena, and Its Thermodynamics, ASME Intl. Mechanical Engineering Congress & Exposition, November 14-20, 2014, Montreal, Canada, Paper: IMECE2014-36312. <https://doi.org/10.1115/1.2795757>
465. Abdulrahman, H. F., Jaber, F. and Gupta, A. K.: Large Eddy Simulations of Colorless Distributed Combustion Systems, 67th Annual Meeting of the APS Division of Fluid Dynamics, San Francisco, CA, Nov 23-25, 2014. APS MWS_DFD14-2014-001769.
466. Brooks, J., Gupta, A. K., Smith, M. Marineau, E.: Development of Particle Image Velocimetry in a Mach 2.7 Wind Tunnel at AEDC White Oak, AIAA SciTech 2015, Kissimmee, FL, Jan 5-9, 2015, Paper AIAA 2015-1915. <https://doi.org/10.2514/6.2015-1915>
467. Finzell, P., Shannon, C., Gupta, A. K., Yu, M. and Bryden, M.: A Proposed Stigmergic Control Algorithm for Advanced Power Systems, AIAA SciTech 2015, Control ID: 2026064.
468. Ibrahim, S., Al Shoaibi, A., and Gupta, A. K.: Role of Benzene on Thermal Stage Performance in a Claus Process, SciTech 2015, Kissimmee, FL, Jan 5-9, 2015, Paper AIAA 2015-1887. <https://doi.org/10.2514/6.2015-1887>
469. Khalil, A. E. and Gupta, A. K.: Mixture Preparation Effects on Distributed Combustion, SciTech 2015, Kissimmee, FL, Jan 5-9, 2015, Paper AIAA 2015-2075. <https://doi.org/10.2514/6.2015-2075>
470. Chardonneau, M., Ibrahim, S., Al Shoaibi, A. and Gupta A. K.: Role of Toluene and Carbon Dioxide on Thermal Stage Performance in a Claus Process, Intl. Conference on Applied Energy (ICAE), Abu Dhabi, UAE, March 28-31, 2015. Paper no. 24.
471. Groisil, M., Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Numerical Examination of Acid Gas for Syngas and Sulfur Recovery, Intl. Conference on Applied Energy (ICAE),

- Abu Dhabi, UAE, March 28-31, 2015, Paper no. 25.
<https://doi.org/10.1016/j.egypro.2015.07.628>
472. Said, O. A. and Gupta, A. K.: Effect of Oxygen Enriched Air on High Intensity Combustion and Emission, 40th Clean Fuel and Coal Conference, Clearwater, FL, May 31-June 4, 2015. <https://doi.org/10.1115/1.4030400>
 473. Groisil, M., Ibrahim, S., Al Shoaibi, A. and Gupta, A. K.: Acid Gas Simulation for Recovering Syngas and Sulfur, ASME Power Conference, San Diego, CA, June 28-July 2, 2015, ID: PowerEnergy 2015-49014. <https://doi.org/10.1115/POWER2015-49014>
 474. Khalil, A. E. E. and Gupta, A. K.: Impact of Internal Entrainment on High Intensity Distributed Combustion, ASME Power Conference, San Diego, CA, June 28-July 2, 2015. PowerEnergy 2015-49034. <https://doi.org/10.1016/j.apenergy.2015.07.044>
 475. Said, A.O., Khalil, A. E. E. Dalgo, D., and Gupta, A. K.: Towards Distributed Combustion with Oxygen Enriched Air, ASME Power Conference, ASME Power Conference, San Diego, CA, June 28-July 2, 2015, PowerEnergy 2015-49037. <https://doi.org/10.1016/j.apenergy.2014.01.081>
 476. Scenna, R., and Gupta, A. K.: Preheats Effect on Distributed Reaction Regime Under Reforming Conditions, ASME Power Conference, San Diego, CA, June 28-July 2, 2015. PowerEnergy 2015-49039. <https://doi.org/10.1115/POWER2015-49039>
 477. Wierzbicki, T.A., Lee, I.C., and Gupta, A. K: Catalytic Oxidation of Jet Fuel Surrogate in a Meso-Scale Combustor, ASME Power Conference, San Diego, CA, June 28-July 2, 2015. Paper No. PowerEnergy 2015-49208. <https://doi.org/10.1115/POWER2015-49208>
 478. Khalil, A. and Gupta, A. K.: Impact of Entrainment on Distributed Combustion, DETC/CIE Conference, Boston, MA, Aug 2-5, 2015, Paper DETC2015-48090. <https://doi.org/10.1016/j.apenergy.2015.07.044>
 479. Yu, M. Pang, C. Chen, Y. and Gupta A. K: Photonic Sensors for Harsh Environment Monitoring, ASME 2015 International Technical Conference and Exhibition on Packaging and Integration of Electronic and Photonic Microsystems, San Francisco, CA, July 6-9, 2015.
 480. Zhang Z., Chen, Y., Liu, H., Bae, H., Olson, D. A., Gupta, A. K. and Yu, M.: Ultra-Thin Multi-Parameter Sensor Achieved with on-Fiber Plasmonic Interferometer, Frontiers in Optics/Laser Science (FiO/LS), San Jose, CA, October 18, 2015.
 481. Molintas, H and Gupta, A. K.: Combustion of Spherically Shaped Large Wood Char Particles, IT3 Conference, Houston, TX, Oct. 20-22, 2015. <https://doi.org/10.1016/j.fuproc.2016.02.029>
 482. Brooks, J., Gupta, A. K., Smith, M.S. and Marineau, E.C.: Development of Particle

- Image Velocimetry in a Mach 2.7 Wind Tunnel at AEDC White Oak, AIAA SciTech, San Diego, CA, Jan. 4-8, 2016, Paper AIAA-2016-1147. <https://doi.org/10.2514/6.2015-1915>
483. Khalil, A.E.E. and Gupta, A. K.: Thermal Field Investigation under Distributed Combustion Conditions, AIAA SciTech, San Diego, CA, Jan. 4-8, 2016. Paper AIAA-2016-0496. <https://doi.org/10.2514/6.2016-0496>
 484. Khalil, A.E.E. and Gupta, A. K.: Impact of Internal Entrainment and Dilution on Enhancing Distributed Combustion, AIAA SciTech, San Diego, CA, Jan. 4-8, 2016. Paper AIAA-2016-1155. <https://doi.org/10.2514/6.2016-1155>
 485. Said A. O. and Gupta, A. K.: Multi-location Fuel Injection on NO*/OH* Chemiluminescence in a High Intensity Combustor, AIAA SciTech, San Diego, CA, Jan. 4-8, 2016. Paper AIAA-2016-0493. <https://doi.org/10.2514/6.2016-0493>
 486. Scenna, R., Dubios T. and Gupta, A. K.: Effect of Oxygen Content at Various Steam to Carbon Ratios in a Distributed Reactor, 47th Power Sources Conf., Orlando Wyndham Resort, Orlando, FL, June 13-16, 2016. <http://powersourcesconference.com/>
 487. Melih A. M. and Gupta, A. K.: Simulation and Validation of Hydrogen Production from Hydrogen Sulfide Pyrolysis, ASME Power Conference, Charlotte, NC, June 26-30, 2016, Paper PowerEnergy2016-59036. <https://doi.org/10.1115/POWER2016-59036>
 488. Burra, K. G. and Gupta, A. K.: Hydrogen from Biomass Gasification using Calcium Looping, 41st International Technical Conference on Clean Coal & Fuel Systems, Clearwater, FL, June 6-9, 2016.
 489. Burra, K. G. and Gupta, A. K.: Role of Catalyst in Pyrolysis and Steam Gasification of Paper and Cardboard Wastes, ASME Power Conference, Charlotte, NC, June 26-30, 2016, Paper PowerEnergy2016-59039. <https://doi.org/10.1115/POWER2016-59039>
 490. Said, A. O.: On Dual Location Fuel Injection in a Cylindrical High Intensity Combustor, ASME Power Conf., Charlotte, NC, June 26-30, 2016, Paper PowerEnergy2016-59043. <https://doi.org/10.1115/POWER2016-59043>
 491. Khalil, A. E. and Gupta, A. K.: Fuel Property Effects on the Fate of Volume Distributed Combustion, ASME Power Conf., Charlotte, NC, June 26-30, 2016, Paper PowerEnergy2016-59050. <https://doi.org/10.1115/POWER2016-59050>
 492. Scenna, R and Gupta, A. K.: Wet Partial Oxidation of JP8 in a Well-Insulated Reactor, ASME Power Conf., Charlotte, NC, June 26-30, 2016, Paper PowerEnergy2016-59515. <https://doi.org/10.1115/POWER2016-59515>
 493. Khalil, E.E. and Gupta, A. K.: Flame-Flow interaction under Distributed Combustion Conditions, P&E Forum, Salt Lake City, July 25-27, 2016, Paper no.: AIAA-2016-4892.

<https://doi.org/10.2514/6.2016-4892>

494. Burra, K.G. and Gupta, A. K.: Dry (CO₂) Reformation of Propane with Partial Oxidation, P&E Forum, Salt Lake City, July 25-27, 2016, Paper no.: AIAA-2016-5019. <https://doi.org/10.2514/6.2016-5019>
495. Said, A. and Gupta, A. K.: High Intensity Combustion of Methane and Propane using Oxygen Enhanced Air, P&E Forum, Salt Lake City, July 25-27, 2016, Paper no.: AIAA-2016-4637. <https://doi.org/10.2514/6.2016-4637>
496. Melih, A. M. and Gupta, A. K.: Reactor Parameters Effects on Hydrogen Production from Hydrogen Sulfide, P&E Forum, Salt Lake City, July 25-27, 2016, Paper no.: AIAA-2016-4952. <https://doi.org/10.2514/6.2016-4952>
497. Yu, M., Chen, Y. Pang, C. Zhang, Z. and Gupta, A.: Multifunctional optical sensing: from nanophotonics to sensor networks, 17th International Conference on Electronic Packaging Technology (ICEPT), Invited keynote presentation, Wuhan, China, Aug. 16-19, 2016.
498. Khalil, A. E. E., Brooks, J.M. and Gupta, A.K.: Impact of Confinement on a Swirl Burner Flowfield, AIAA SciTech, Grapevine, TX, Jan. 9-13, 2017, Paper AIAA-2016-1607. <https://doi.org/10.2514/6.2017-1607>
499. Khalil, A. E. E and Gupta, A. K.: On the Colorless Distributed Combustion Regime, AIAA SciTech, Grapevine, TX, Jan. 9-13, 2017, Paper AIAA-2016-1070. <https://doi.org/10.2514/6.2017-1060>
500. Said, A. O. and Gupta, A. K.: Effect of Internal Entrainment on the Fate of Distributed Combustion in High Intensity Combustion, AIAA SciTech, Grapevine, TX, Jan. 9-13, 2017, Paper AIAA 2017-1835. <https://doi.org/10.2514/6.2017-1835>
501. Burra, K.G. and Gupta, A. K.: Sorption Enhanced Steam Reforming of Methane using Calcium Looping, AIAA SciTech, Grapevine, TX, Jan. 9-13, 2017, Paper AIAA 2017-1610. <https://doi.org/10.2514/6.2017-1610>
502. Yongyao Chen, Zhijian Zhang, Ashwani Gupta, and Miao Yu. "Multi-parameter sensing platforms based on Plasmonic Structures and Planar Photonic Crystals," Submitted to Conference on Lasers and Electro-Optics (CLEO 2017), San Jose, CA, May 14-19, 2017
503. Burra, K. G. and Gupta A. K.: Bio-crude Oil Conversion with Metal Additives, 42nd International Technical Conference on Clean Energy Fuels, Clearwater, FL, June 11-15, 2017.
504. Khalil, A. E.E. and Gupta, A. K.: Acoustic Noise Reduction under Distributed Combustion, ASME Power and Energy Conversion Conference, Charlotte, NC, June 26-30, 2017, Paper PowerEnergy 2017-3788. <https://doi.org/10.1115/POWER-ICOPE2017->

505. ElMelih, A. M. and Gupta, A. K.: Effect of Oxygen Injection on Hydrogen Sulfide Pyrolysis, Proc. ASME Power and Energy Conversion Conference, Charlotte, NC, June 26-30, 2017, Paper PowerEnergy 2017-3791. <https://doi.org/10.1115/POWER-ICOPE2017-3791>
506. Scenna, R and Gupta, A. K.: Effect of Oxygen to Carbon Ratio on the Distributed Flame Regime, Proc. ASME Power and Energy Conversion Conf., Charlotte, NC, June 26-30, 2017, Paper ASME 2017-3798. <https://doi.org/10.1115/POWER-ICOPE2017-3798>
507. Gupta, A. K and Yang, B.: Catalytic and Non-Catalytic Combustion of Propane in a Meso-Scale Heat Recirculating Combustor, Proc. ASME 2017 Power and Energy Conversion Conference, Charlotte, NC, June 26-30, 2017, Paper PowerEnergy 2017-3697. <https://doi.org/10.1115/POWER2014-32215>
508. Gupta, A. K.: Catalytic and Non-Catalytic Combustion of Propane in a Meso-Scale Heat Recirculating Combustor, ASME Power and Energy Conversion Conference, Charlotte, NC, June 26-30, 2017, Paper PowerEnergy 2017-3792.
509. Burra, K. G. and Gupta, A. K.: Sorption Enhanced Steam Reforming of Propane using Calcium Looping, ASME Power and Energy Conversion Conference, Charlotte, NC, June 26-30, 2017, Paper PowerEnergy 2017-3621. <https://doi.org/10.1115/POWER-ICOPE2017-3621>
510. Brooks, J., Gupta, A.K., Marineau, E and M. Smith: Mach 10 PIV Flow Field Measurement of Turbulent Boundary Layer and Shock Turbulent Boundary Layer Interaction, AIAA Avionics and Aeronautics Forum and Exposition, Sheraton Hotel, Denver, CO, June 5–9, 2017, Paper AIAA-2017-3325. <https://doi.org/10.2514/6.2017-3325>
511. Khalil, A. E. and Gupta, A. K.: Acoustic and Heat Release Signatures for Oxy-fuel Swirl Assisted Distributed Combustion, Propulsion & Energy Forum, Atlanta, GA, July 10 – 12, 2017, Paper AIAA-2017-4812. <https://doi.org/10.1016/j.apenergy.2017.02.030>
512. Burra, K. and Gupta, A. K.: Sorption Enhanced Catalytic Gasification of Char, Propulsion & Energy Forum, Atlanta, GA, July 10 – 12, 2017, Paper AIAA-2017-4813. <https://doi.org/10.2514/6.2017-4813>
513. ElMelih, A. M. Al Shoaibi, A. M. and Gupta, A. K.: Production of Hydrogen from Hydrogen Sulfide Reformation in the Presence of Benzene, Propulsion & Energy Forum, Atlanta, GA, July 10 – 12, 2017, Paper AIAA-2017-4814. <https://doi.org/10.2514/6.2017-4814>
514. Scenna, R and Gupta, A. K.: Influence of Distributed Reaction Regime on Fuel Reforming, ASME Intl. Design Engineering Technical Conference & Computers and

- Information in Engineering Conference, Cleveland, OH, August 6-9, 2017, Paper No. DETC2017-68129. <https://doi.org/10.1115/DETC2017-68129>
515. Burra, K. G., González; J. B., Bains, G and Gupta A. K.: Reactant Composition Effects on Autothermal Methane Reforming in a Fluidized Bed, AIAA SciTech, Orlando, FL, Jan. 8-12, 2018, Paper AIAA-2018-1475. <https://doi.org/10.2514/6.2018-1475>
 516. Burra, K. G. and Gupta, A. K.: Modeling of Biomass Pyrolysis Kinetics using Sequential Multi-Step Reaction Model, Clearwater Clean Energy Conference, Clearwater, FL, June 4-7, 2018. <https://doi.org/10.1016/j.fuel.2018.09.097>
 517. Burra, K. G. and Gupta, A.K.: Characteristic of Char from Co-Pyrolysis of Biomass and Plastic Waste, ASME Power and Energy, June 24-28, 2018, Lake Buena Vista, FL, Paper PowerEnergy2018-7255. <https://doi.org/10.1115/POWER2018-7255>
 518. Burra, K. G. and Gupta, A.K.: In-situ Characterization of Surface Components During Cellulose Pyrolysis, AIAA Propulsion & Energy Forum, Cincinnati, OH, July 9-11, 2018, Paper No. AIAA-2018-4412. <https://doi.org/10.2514/6.2018-4412>
 519. Feser, J. S., and Gupta, A. K.: Flowfield Investigation in a Non-Reacting Reverse Flow Isothermal Combustor, AIAA SciTech, San Diego, CA, January 7-11, 2019, Paper No. AIAA-2019-1770. <https://doi.org/10.2514/6.2019-1770>
 520. Burra, K. G., Singh, P., and Gupta, A. K.: Conversion of Absorbent Polymer Wastes to Syngas using Pyrolysis and CO₂ Assisted Gasification, AIAA SciTech, San Diego, CA, January 7-11, 2019, Paper No. AIAA-2019-1774. <https://doi.org/10.2514/6.2019-1774>
 521. Burnett, K. J., Gupta, A. K., and Cowart, J. S.: A Fundamental Thermodynamic Investigation of Compression Ratio Effects in Relation to Diesel Engine Size, WCX SAE World Congress Experience. April 21-23, 2020, Paper 20PFL-0516. <https://doi.org/10.1115/ICEF2021-67511>
 522. Wang, Z., Burra, K. G., Lei, T., and Gupta, A. K.: Co-gasification Characteristics of Waste Tire and Pine Bark in CO₂ Atmosphere. AEAB-2019 Applied Energy Symposium, 11, May 22-24, 2019, MIT, Cambridge, MA. <https://doi.org/10.1016/j.fuel.2019.116025>
 523. Feser, J. S., Karyeyen, S., and Gupta, A. K.: Impact of Flowfield on Pollutants Emission from a Swirl Assisted Distributed Combustor, 44th Clearwater Clean Energy Conference, Clearwater, FL, June 17-20, 2019.
 524. Wang, Z., Burra, K. G., Policella, M., Lei, T., and Gupta, A. K.: Characteristic Comparison of CO₂-assisted Co-gasification and Co-pyrolysis using Waste Tire and Pine Bark Mixtures, 44th Clearwater Clean Energy Conf., Clearwater, FL, June 17-20, 2019. <https://doi.org/10.1016/j.fuel.2019.116025>

525. Karyeyen, S., Feser, J. S., and Gupta, A. K.: Hydrogen Enrichment Effects in Gaseous Fuels on Distributed Combustion, ASME Power Conference, July 15-18, 2019, Snowbird, UT, Paper Power2019-1893. <https://doi.org/10.1115/POWER2019-1893>
526. Burra, K. G., Singh, P, N., Déparrois, N., and Gupta, A. K.: Pyrolysis and CO₂ Gasification of Composite Polymer Absorbent Waste for Syngas Production, ASME Power Conference, July 15-18, 2019, Snowbird, UT, Paper Power2019-1884. <https://doi.org/10.1115/POWER2019-1884>
527. Karyeyen, S., Feser, J. S. and Gupta, A. K: Fuel Dilution Effects in a Hydrogen-Methane Blended Fuel under Oxy-Distributed Combustion, AIAA Propulsion and Energy Conference, Indianapolis, IN, August 19-21, 2019, Paper No. AIAA-2019-4326. <https://doi.org/10.2514/6.2019-4326>
528. Burra, K.G., and Gupta, A. K.: Versatile Model Selection for Pyrolysis of Lignocellulosic-Biomass Components, AIAA Propulsion and Energy Conference, Indianapolis, IN, August 19-21, 2019, Paper No. AIAA-2019-4158, <https://doi.org/10.2514/6.2019-4158>
529. Shin K-H, Yu, K. H., and Gupta, A. K.: Shin, K-H, Yu, K.H., and Gupta, A.K., “Combustion of boron and magnesium diboride particles in low equivalence ratio methane flames,” AIAA Propulsion and Energy, Indianapolis, IN, AIAA 2019-4125, August (2019);
530. Burnett, K. J., Gupta, A. K., and Cowart, J. S.: A Fundamental Thermodynamic Study on the Effects of Engine Scale in Diesel Engines, Proceedings of the ASME 2019, Internal Combustion Engine Division Fall Technical Conference (ICEF2019), October 20-23, 2019, Chicago, IL, Paper no. ICEF2019-7121. <https://doi.org/10.1115/ICEF2019-7121>
531. Feser, J. S., Karyeyen, S., and Gupta, A. K.: Impact of Flowfield on Pollutants Emission from a Swirl Assisted Distributed Combustor, 26th National Combustion Conference, NIT Kurukshetra, November 1-4, 2019.
532. Feser, J., Wang, Z. and Gupta, A. K.: Investigation of Camelina Oil Derived Jet Fuel Blends on Performance and Emissions under Distributed Combustion Condition, AIAA SciTech., Orlando, FL, January 6-10, 2020. <https://doi.org/10.2514/6.2020-1704>
533. Burra, K. G. and Gupta, A. K.: Insight into Pyrolysis Kinetics on Lignin Surface via In-situ Spectroscopic Techniques, AIAA SciTech Forum, Orlando, FL, Jan 6-10, 2020, AIAA 2020-1702. <https://doi.org/10.2514/6.2020-1702>
534. Feser, J., and Gupta, A. K.: Performance and Emission of Drop in Aviation Biofuels in a Gas Turbine Engine, Proc. ASME 2020 Power Conference and 28th Conf. on Nuclear Engineering, ICONE28-POWER2020-4770, Anaheim, CA, USA, August 2-6, 2020. <https://doi.org/10.1115/POWER2020-16958>

535. Burra, K. G. and Gupta, A. K.: Thermochemical Splitting of CO₂ to CO Using Co-Ferrite Redox Looping, Proc. ASME 2020 Power Conference / 28th Conf. on Nuclear Engineering, ICONE28-POWER2020-4884, Anaheim, CA, USA, August 2-6, 2020. <https://doi.org/10.1115/1.4048077>
536. Feser, J. S., Wang, Z., and Gupta, A. K.: Investigation of Camelina Oil Derived Jet Fuel Blends on Performance and Emissions under Distributed Combustion Condition. AIAA SciTech 2021 Forum, Jan. 6-10, 2021, Orlando, FL. <https://doi.org/10.2514/6.2020-1704>
537. Burnett, K., Cowart, J., and Gupta, A. K.: Paper Title: A Fundamental Thermodynamic Investigation of Compression Ratio Effects in Relation to Diesel Engine Size, WCX SAE World Congress Experience, Detroit, MI, April 13-15, 2021, Paper No. 21PFL-0356. <https://doi.org/10.1115/ICEF2021-67511>
538. Li, J., Burra K. G. Liu, X., Liang X. and Gupta, A. K.: Sodium Ion-exchange Contrasting Effects on Syngas Evolution during Pyrolysis and CO₂ Assisted Gasification of Biomass, 45th Clearwater Clean Energy Conference, Clearwater, FL, July 26-28, 2021.
539. Burra, K. G., and Gupta, A. K.: Thermal Decomposition of Cellulose in Supercritical CO₂ for Value Added Char Production, 45th Clearwater Clean Energy Conference, Clearwater, FL, July 26-28, 2021. **(Best Student paper award at the Conf).**
540. Liu, X., Burra, K. G., Wang, Z., Li, J., Che, D. and Gupta, A. K.: Insights into Synergistic Effects in Co-pyrolysis of Pinewood and Polycarbonate Waste, 45th Clearwater Clean Energy Conference, Clearwater, FL, July 26-28, 2021. **(Second Best Student Paper award at the conf).**
541. Shin, K-H, Gupta, A. K. and Yu, K. H.: Dump Combustor Experiments of MgB₂ and Other Metal Microparticles, AIAA Propulsion and Energy Forum and Exposition, (virtual conf.), August 9-11, 2021. Control ID: 3566448, DOI: 10.2514/6.2021-3528.
542. Burnett., K. Gupta, A. K., A Fundamental Thermodynamic Investigation of Compression Ratio Effects in Relation to Diesel Engine Size, Proceedings of the ASME 2021 Fall IC Engines Conference, ICEF2021, October 13-15, 2021, ICEF2021-67511. <https://doi.org/10.1115/ICEF2021-67511>
543. Gupta, A. K., Cowart, J., Burnett, K. and Prak, D. L.: Primary & Secondary Reference Fuel Effects as a Function of Compression Ratio in a CFR Diesel Engine, Proc. of the ASME 2021 Fall IC Engines Conference, ICEF2021, Virtual/Online Conference, October 13-15, 2021, Paper ICEF2021-67395. <https://doi.org/10.1115/ICEF2021-67395>
544. Shin, K-H., Chang, M., Yu, K. H. and Gupta, A.K: Combustion of Boron and MgB₂ Particles for Improving Propulsion Performance, 25th Intl. Symposium on Air Breathing Engines (ISABE), ISABE 2022, Toronto, Canada, Sept 22-25, 2022.
545. Roy, R and Gupta, A.K.: Detection of Distributed Combustion from Machine Learning

- Architecture, AIAA SciTech Forum, San Diego, CA, Jan. 3-7, 2022, Paper no. AIAA 2022-2062, <https://doi.org/10.2514/6.2022-2062> Online Video Presentation: <https://doi.org/10.2514/6.2022-2062.vid>
546. Roy, R, Nguyen, K. Stuart, T. and Gupta, A. K.: Performance of Swirl-Stabilized Distributed Combustion with Hydrogen Enriched Methane: Stability, Blowoff Limits, and Emissions, ASME Turbo Expo, Rotterdam Ahoy Convention Centre, Rotterdam, The Netherlands, June 13–17, 2022, paper 2022-82062. <https://doi.org/10.1115/GT2022-82062>
 547. Jahnvi Trivedi, Tasnuva Moutushi, Kiran Raj Goud Burra, Seungmin Oh, Sachin Ramdin Surabh S KT, Ashwani K. Gupta, Elizabeth Biddinger, Robert J. Messinger, Stephen Goff, Marco J. Castaldi, Impact of additives to MSW for pre-combustion enhancement of syngas and solid residue improvement, Clearwater Clean Energy Conference, Clearwater, FL, August 1-4, 2022.
 548. Roy, R. and Gupta, A. K.: Characteristics of Swirl-stabilized Distributed Combustion with Hydrogen-enriched Methane, ASME Power conf, Pittsburg, PA, July 18-19, 2022. Paper POWER2022-85402. <https://doi.org/10.1115/POWER2022-85402>
 549. Burra, K. G. and Gupta, A. K.: Co-Processing of Municipal Solid Wastes with Gypsum Wastes for Enhanced Product Recovery, ASME Power conf, Pittsburg, PA, July 18-19, 2022. Paper POWER2022-85550. <https://doi.org/10.1115/POWER2022-85550>
 550. Burra, K. G. and Gupta, A. K.: Supercritical CO₂-Assisted Liquefaction Pathway for High Quality Liquid Biofuels, Clearwater Clean Energy Conf., Clearwater, FL, Paper 72, August 1-4, 2022.
 551. Roy, R., Gupta, A. K.: Effect of Hydrogen-enrichment to Methane in Swirl-assisted Distributed Combustion at Different Thermal Intensity, Clearwater Clean Energy Conference, Clearwater, FL, August 1-3, 2022, **Student Best Paper Award at the conf. (First Place)**.
 552. Burra, K. G., Selim, O. M, Amano, R.S., and Gupta, A. K., Synergy in Syngas from Co-pyrolysis of Cow and Chicken Manures, Clearwater Clean Energy Conf., Clearwater, FL, Paper 71, August 1-3, 2022. **OSTI Identifier: 1867415**.
 553. Janhvi Trivedi, Tasnuva Moutushi, Seungmin Oh, Sachin Ramdin, Surabh S KT, KiranRaj Goud Burra, Stephen Goff, Elizabeth Biddinger, Robert J. Messinger, Ashwani K. Gupta and Marco J. Castaldi, Impact of Additives to MSW for Pre-Combustion Enhancement of Syngas and Solid Residue Improvement, Clearwater Clean Energy Conf., Clearwater, FL, August 1-3, 2022.
 554. Yan Chen, Zhiwei Wang, Gaofeng Chen, Tanglei, Sun, Mengju Zhang, Qun Wang, Mengge Wu, Shuaihua Guo, Shuhua Yang, Tingzhou Lei and Ashwani K. Gupta: Products distribution and synergistic effects analysis during co-pyrolysis of agricultural

- residues and waste tire by Py-GC/MS, ICAE, CUE2022-The 8th Applied Energy Symposium: Low Carbon cities and Urban Energy systems, Paper no. 6652, Matsue, Japan, Nov. 24-27, 2022. <https://doi.org/10.1115/1.4056940>
555. Shuaihua Guo, Zhiwei Wang, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Yan Chen, Mengge, Wu, Tingzhou Lei and Ashwani K. Gupta: Co-pyrolysis characteristics of forestry and agricultural residues and waste plastics using TGA, FTIR and Py-GC/MS analysis, ICAE, CUE2022-The 8th Applied Energy Symposium: Low Carbon cities and Urban Energy systems, Paper no. 656, Matsue, Japan, Nov. 24-27, 2022. <https://doi.org/10.1016/j.fuel.2022.127206>
 556. Mengge Wu, Zhiwei Wang, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Huina Zhu, Shuaihua Guo, Yan Chen, Youjian Zhu, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta, Products distribution analysis of the co-pyrolysis of rapeseed stalk with PET, PP and PVC based on Py-GC/MS, CUE2022-The 8th Applied Energy Symposium: Low Carbon cities and Urban Energy systems, Paper 9356, Matsue, Japan, Nov. 24-27, 2022.
 557. Roy, R., Melia, E. and Gupta, A.K.: Investigation of Bluff-body Stabilized Ammonia, Methane and Propane Flames with Flowfield Dilution, AIAA SciTech Forum 2023, Washington DC, Jan. 15-20, 2023, control ID no. 3772907. <https://doi.org/10.2514/6.2023-0203>
 558. Burra, K. G, and Gupta, A. K.: Compact Resistive Heating Catalytic Reactor for in-Situ Fuel Reforming to Hydrogen, AIAA SciTech Forum 2023, Washington DC, Jan. 15-20, 2023, control ID no. 3776082.
 559. Zhiwei Wang, Mengge Wu, Gaofeng Chen, Mengju Zhang, Tanglei Sun, Qun Wang, Zhimin Du, Yan Chen, Shuaihua Guo, Tingzhou Lei, Kiran G. Burra and Ashwani K. Gupta: Co-pyrolysis characteristics of rapeseed stalk and polypropylene using TGA, FTIR and Py-GC/MS analysis, CEN2023, Applied Energy Symposium 2023: Clean Energy towards Carbon Neutrality, Ningbo, China, April 22-25, 2023. <https://doi.org/10.1016/j.fuel.2022.127206>
 560. Mengge Wu, Zhiwei Wang, Gaofeng Chen, Mengju Zhang, Xiaofei Xin, Huina Zhu, Qun Wang, Zhimin Du, Yan Chen, Shuaihua Guo, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta: Aromatic Hydrocarbon Production from Co-pyrolysis of Biomass and Plastics, 47th Clearwater Clean Energy Conference, July 23-27, 2023, Clearwater, FL
 561. Shuaihua Guo, Zhiwei Wang, Mengju Zhang, Zaifeng Li, Xiaofei Xin, Mengge Wu, Yan Chen, Zhimin Du, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta: Products Distribution during Co-pyrolysis of Biomass and Waste Plastics Using a Catalyst, 47th Clearwater Clean Energy Conference, July 23-27, 2023, Clearwater, FL.
 562. Yan Chen, Zhiwei Wang, Gaofeng Chen, Mengju Zhang, Xiaofei Xin, Shuhua Yang, Qun Wang, Zhimin Du, Shuaihua Guo, Mengge Wu, Tingzhou Lei, Kiran G. Burra, and

- Ashwani K. Gupta: Co-pyrolysis Characteristics of Different Agroforestry Residues and Polyethylene Terephthalate, 47th Clearwater Clean Energy Conference, July 23-27, 2023, Clearwater, FL.
563. Mavukwana, Athi-enkosi, Burra, K. R. G., Sempuga, C., and Gupta A. K: Co-gasification of Gypsum and Municipal Solid Waste in CO₂ Atmosphere, ASME Power Conference, Hilton Long Beach, Long Beach, CA, August 6–9, 2023. POWER2023-108770, V001T01A003; 8 pages, <https://doi.org/10.1115/POWER2023-108770>
 564. Mavukwana, Athi-enkosi, Burra, K. R. G., Sempuga, C., and Gupta A. K: Metal Speciation and Syngas Evolution During Co-gasification of Municipal Solid Waste and Gypsum, ASME Power Conference, Hilton Long Beach, Long Beach, CA, August 6–9, 2023, Paper No: POWER2023-108773, V001T01A004; 10 pages, <https://doi.org/10.1115/POWER2023-108773>
 565. Roy R., and Gupta, A. K.: Audio-based Classification of Swirl Combustion Regimes using Deep Learning, ASME Power Conference, Hilton Long Beach, Long Beach, CA, August 6–9, 2023. Paper No: POWER2023-109005, V001T04A008; 7 pages, <https://doi.org/10.1115/POWER2023-109005>
 566. Aktas F., Mavukwana, Athi-enkosi, Burra, K. R. G., Castaldi, M., and Gupta, A. K.: Effect of spent FCC catalyst during pyrolysis of Poly Ethylene Terephthalate, AIAA SciTech Conference, Orlando, FL, Jan 7-12, 2024, Paper AIAA-2024-0217, <https://doi.org/10.2514/6.2024-0217>
 567. Burra, K.R.G, Sahin, M., and Gupta, A. K.: Compact Resistive Heating Catalytic Reactor for in-Situ Fuel Reforming to Hydrogen, AIAA SciTech Conference, Orlando, FL, Jan 7-12, 2024, Paper AIAA-2024-0219, <https://doi.org/10.2514/6.2024-0219>
 568. Burra, K. R. G., Sahin, M. and Gupta, A. K: Compact Electric Reforming of Hydrocarbon Fuels for Reliable Hydrogen Production. 48th Clearwater Clean Energy Conference, Clearwater, FL, June 17-20, 2024.
 569. Aktas, F., Burra K. R, G. and Gupta, A. K.: Catalyst Position and Reactor Temperature Effects on Pyrolysis of Polyethylene Terephthalate, 48th Clearwater Clean Energy Conference, Clearwater, FL, June 17-20, 2024.
 570. Zhiwei Wang, Mengge Wu, Gaofeng Chen, Huina Zhu, Qun Wang, Na Guo, Yan Chen, Shuaihua Guo, Tingzhou Lei, Kiran G. Burra, and Ashwani K. Gupta: Influencing Factors and Products Optimization During Co-pyrolysis of Solid Biomass and Waste Plastics, 48th Clearwater Clean Energy Conference, Clearwater, FL, June 17-20, 2024.
 571. Burra, K. R. G., Sahin, M. and Gupta, A. K.: Resistive Heating Catalytic Micro-reactor Design for Process Intensified Fuel Reforming to Hydrogen, ASME 2024 18th International Conference on Energy Sustainability, ES2024, July 15-17, 2024, Anaheim, CA, USA, Paper No. ES-2024-131382.

- 572. Aktas, F., Burra, K. R. G. and Gupta, A. K., Catalyst Position and Reactor Temperature Effects on the Pyrolysis of Polyethylene Terephthalate, ASME Power Conference, Washington DC, Sep. 15-18, 2024, Paper No. POWER2024-138163.
- 573. Aktas, F., Burra, K. R. G., Mavukwana, Athi-enkosi, and Gupta, A. K.: Polyethylene Terephthalate Gasification Using CO₂: Impact of sFCC Catalyst Contact Mode and Amount, ASME Power Conference, Washington DC, Sep. 15-18, 2024, Paper No. POWER2024-138167.
- 574. Burra, K. R. G. and Gupta, A. K.: Deoxygenation of Model Bio-oil Oxygenates in Methane, in progress