

## ICHIRO TAKEUCHI

Professor

Department of Materials Science and Engineering  
University of Maryland, College Park, MD 20742

Phone: 301-405-6809

Fax: 301-405-6327

Email: [takeuchi@umd.edu](mailto:takeuchi@umd.edu)

### EDUCATION

- Ph.D.** Physics                      University of Maryland, College Park, MD                      August, 1996  
Advisors: T. Venkatesan and Chris Lobb
- B.S.**    Physics                      California Institute of Technology, Pasadena, CA                      June, 1987

### EMPLOYMENT EXPERIENCE

**Professor (7/2009 to present, Associate 8/2004-7/2009, Assistant 7/1999-7/2004)**

Department of Materials Science and Engineering  
University of Maryland, College Park, MD

**Affiliate Professor (2004 to present)**

Department of Physics  
University of Maryland, College Park, MD

**Chief Technology Officer (2010 to present)**

Maryland Energy and Sensor Technologies, LLC  
College Park, MD

**Postdoctoral Research Fellow (9/1996-7/1999)**

Materials Sciences Division, Lawrence Berkeley National Laboratory, University of California,  
Berkeley, CA

**Graduate Research Associate (8/1991-9/1996)**

Center for Superconductivity Research, Department of Physics  
University of Maryland, College Park, MD

**Member of the Technical Research Staff (9/1987-8/1991)**

Microelectronics Research Laboratories and Fundamental Research Laboratories  
NEC Corporation, Kawasaki and Tsukuba, Japan

### Visiting Professorships

**2009-present** Department of Applied and Industrial Chemistry, Tokyo University of Science,  
Chiba, Japan

**10-11/2009** Research Department on Integrity of Microsystems and High Temperature Materials,  
Ruhr University Bochum, Germany

**4/2007 to 8/2007** Institute for Solid State Physics University of Tokyo, Kashiwa, Japan

**6/2004 to 3/2005** Applied Ceramics Laboratory, Tokyo Institute of Technology, Yokohama, Japan

**5/1996 Visiting Scientist** Device Materials Group, Department of Materials Science, University of Cambridge, England

### **RESEARCH INTERESTS**

Applications of combinatorial synthesis and characterization methodology to electronic, sensor/actuator, and energy materials. Machine learning for materials research. Fabrication and characterization of novel multilayer thin-film devices. Variable temperature scanning probe microscopes. Elastocaloric cooling. Over thirty years of experience in various aspects of thin-film deposition and characterization, MEMS device fabrication, and low temperature measurements.

### **PUBLICATIONS**

Over 275 articles in refereed journals. Total number of citations as of September 2022 (Google scholar): 17000; h-factor: 68.

### **FELLOWSHIPS, AWARDS, HONORS, AND OTHERS**

NIST Distinguished Associate Accolade, Materials Measurement Laboratory (2021)

Elected Fellow International of Japan Society of Applied Physics (2020)

Distinguished Scholar-Teacher, University of Maryland (2018)

Senior Faculty Research Achievement Award, School of Engineering, U. Maryland (2018)

Elected Fellow of American Physical Society (2010)

Invention of the Year Award, Physical Sciences Category. Office of Technology Commercialization, University of Maryland (2010)

Fellow by Special Appointment, Japan Science and Technology Agency (2007-2008)

Bruker Excellence in Diffraction Award (for the work performed by graduate students) (twice, 2005,2006)

Guest Researcher, NIST, Gaithersburg, MD (2004-present)

NSF Career Award (2001)

Office of Naval Research, Young Investigator Program Award (2000)

Oak Ridge Associated Universities Ralph E. Powe Junior Faculty Enhancement Award (2000)

General Research Board Semester Research Award, University of Maryland (2000)

Associated Western Universities Postdoctoral Research Fellowship (1996-1999)

National Center for Electron Microscopy Visiting Scientist Fellowship,

Lawrence Berkeley National Laboratory (1999)

Summer Undergraduate Research Fellowship, Caltech (1985 & 1986)