

Prof. Yutaka Majima

## • Contact Information

Affiliation: Laboratory for Materials and Structures, Tokyo Institute of Technology

Address: 4259 Nagatsuta-cho, Midori-ku, Yokohama, 226-8501 Japan

*Phone/Fax:* +81-45-924-5309/5376

#### Education

- (1) BS, 1987, Department of Electrical and Electronic Engineering, School of Engineering, Tokyo Institute of Technology
- (2) MS,1989, Department of Electrical and Electronic Engineering, Graduate School of Engineering, Nagoya University
- (3) Dr. of Engineering 1992, Department of Electrical and Electronic Engineering, Graduate School of Engineering, Nagoya University

## Professional Experience

- 1992: Researcher and Research Scientist, Toshiba Corporation
- 1996: Assistant Professor, Department of Electronics and Applied Physics, Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology
- 1998: Associate Professor, Department of Physical Electronics, Graduate School of Engineering, Tokyo Institute of Technology
- 2002-2004: Senior Specialist for Nanotechnology Research Promotion, Basic and Generic Research Division, Research Promotion Bureau, Ministry of Education Sports Science and Technology (MEXT), Government of Japan
- 2009-present: Professor, Laboratory for Materials and Structures, Institute of Innovative Research, Tokyo Institute of Technology
- 2009-2020: Chief Adjunct Professor, Department of Printed Electronics, Sunchon National University, Korea

#### Honors and Awards

- 1991: 13th Japan Society of Applied Physics Prize (Original Paper Award)
- 1998: Presentation Award, The Institute of Electrical Engineers of Japan (IEEJ)
- 2002: Tokyo Tech Award for Challenging Research, Tokyo Institute of Technology
- 2009: Best Education Award, Tokyo Institute of Technology
- 2010: The Minister of Education, Culture, Sports, Science and Technology (MEXT)'s 14th Engineering Education Award
- 2019: APEX/JJAP Editorial Contribution Award, Japan Society of Applied Physics
- 2022: Japan Society of Applied Physics (JSPS) Fellow Award

## • Field of Research

Single nanoscale fabrication, Nanodevice, Electron beam lithography (EBL), Electroless Au plating (ELGP), Single-molecule transistor, ELGP nanopore DNA sequencer, Nanogap gas sensor, Ferroelectric tunneling junction, etc.

# • Topic of Talk

Fabrication of single-nanoscale devices and their applications: Single-molecule transistors, ELGP nanopore DNA sequencer, and Nanoscale gas sensors