

# NANO KOREA 2020

## July 1~3, KINTEX, Korea

---

### Tetsuro Majima

Professor Emeritus, Guest Professor, The Institute of Scientific and Industrial Research (SANKEN), Osaka University

**Address:** Mihogaoka 8-1, Ibaraki, Osaka

**Telephone:** (+81)72-622-0716

**E-mail:** majima@sanken.osaka-u.ac.jp

**Web:**

**Fax:** (+81)72-622-0716

**Nationality:** Japan

---

#### EDUCATION

Osaka University	Ph.D	Chemistry, Engineering	1980
Osaka University	MS	Chemistry, Engineering	1977
Osaka University	BS	Chemistry, Engineering	1975

#### PROFESSIONAL ACTIVITIES

- Research Associate, Chemistry, University of Texas at Dallas, USA, 1980~1982
- Researcher, The Institute of Physical and Chemical Research (RIKEN), Japan, 1982~1994
- Assoc. Professor, Molecular Excitation Chemistry, The Institute of Scientific and Industrial Research (SANKEN), Osaka University, 1994~1997
- Professor, Molecular Excitation Chemistry, The Institute of Scientific and Industrial Research (SANKEN), Osaka University, 1997~2018
- Professor Emeritus, Guest Professor, The Institute of Scientific and Industrial Research (SANKEN), Osaka University, 2018~present

#### AWARD AND HONORS

- The Japanese Photochemistry Association, Award, 2000.9
- The Japanese Photochemistry Association, Lectureship Award, 2008.9
- The Chemical Society of Japan, BCSJ Awards, 2010.10, 2013.1, and 2013.11
- Osaka University, Osaka University President Award, 2014.7
- Japanese Society of Radiation Chemistry, Award, 2014.9
- Japanese Society for Photomedicine and Photobiology, Award, 2015.7
- Korean Society of Photoscience, The 1st Merit Award, 2015.8
- The Photobiology Association of Japan, Award, 2016.7
- Senior Editor of *Langmuir*, American Chemical Society, 2007.1~2014.12
- Editorial Advisory Board of *ACS Applied Materials & Interfaces*, American Chemical Society, 2008.10~2018.
- Co-chair and Editorial Board of *ChemPlusChem*, John Wiley & Sons, Inc., Weinheim, Germany, 2012.11~present

# NANO KOREA 2020

## July 1~3, KINTEX, Korea

- Associate Editor of *Photochemistry and Photobiology*, John Wiley & Sons, Inc., Weinheim, Germany, 2012.5~

### MAIN SCIENTIFIC PUBLICATION

- Direct Observation of Hole Transfer through double helical DNA over 100 Å, T. Takada, K. Kawai, M. Fujitsuka, and T. Majima, *Proc. Nat. Acad. Sci. USA* **2004**, *101*, 14002-14006.
- Two-laser-guided Three-dimensional Microfabrication and Processing in Flexible Polymer Matrix, M. Sakamoto, T. Tachikawa, M. Fujitsuka, and T. Majima, *Adv. Mater.* **2008**, *20*(18), 3427-3432.
- Evidence for Crystal-Face-Dependent TiO<sub>2</sub> Photocatalysis from Single-Molecule Imaging and Kinetic Analysis, T. Tachikawa, S. Yamashita, and T. Majima, *J. Am. Chem. Soc.* **2011**, *133*(18), 7197-7204.
- Folding Dynamics of Cytochrome c Using Pulse Radiolysis, J. Choi, M. Fujitsuka, S. Tojo, and T. Majima, *J. Am. Chem. Soc.* **2012**, *134*(32), 13430-13435.
- Far-Red Fluorescence Probe for Monitoring Singlet Oxygen during Photodynamic Therapy, S. Kim, T. Tachikawa, M. Fujitsuka, and T. Majima, *J. Am. Chem. Soc.* **2014**, *136*(33), 11707-11715.
- A nanocomposite superstructure of metal oxides with effective charge transfer interfaces, Z. Bian, T. Tachikawa, P. Zhang, M. Fujitsuka, and T. Majima, *Nat. Commun.* **2014**, *5*, 4038/1-4038/9.
- Nanoplasmonic Photoluminescence Spectroscopy at Single-Particle Level: Sensing for Ethanol Oxidation, Z. Zheng and T. Majima, *Angew. Chem. Int. Ed.* **2016**, *55*(8), 2879-2883.
- Metal-Free Photocatalyst for H<sub>2</sub> Evolution in Visible to Near-Infrared Region: Black Phosphorus/Graphitic Carbon Nitride, M. Zhu, S. Kim, L. Mao, M. Fujitsuka, J. Zhang, X. Wang, and T. Majima, *J. Am. Chem. Soc.* **2017**, *139* (37), 13234-13242.
- Z-Scheme Photocatalytic Overall Pure-Water Splitting on 2D Heterostructure of Black Phosphorus/BiVO<sub>4</sub> under Visible Light, M. Zhu, Z. Sun, M. Fujitsuka, and T. Majima, *Angew. Chem. Int. Ed.* **2018**, *57*(8), 2160-2164.
- Single-molecule, -particle fluorescence probing Crystal Edge/Corner as Highly Efficient Photocatalytic Sites on a Single TiO<sub>2</sub> Particle, W. Wang, J. Chen, Z. Luo, S. Kim, M. Fujitsuka, H.-Q. Yu, and T. Majima, *Proc. Nat. Acad. Sci.* **2019**, *116*(38), 201907122

### RESEARCH INTERESTS

- Photochemistry, multi-laser chemistry,
- Radiation chemistry, radical ion chemistry
- Supramolecular chemistry
- Electron transfer chemistry, interfacial electron transfer
- Single-molecular chemistry
- Photocatalysts