

## Tetsuya Shishido

**Affiliation:** Department of Applied Chemistry for Environment, Tokyo Metropolitan University

**Address:** 1-1, Minami-osawa, Hachioji, Tokyo 192-0397, Japan

**E-mail:** shishido-tetsuya@tmu.ac.jp

**Website:** <https://shishidolab.cpark.tmu.ac.jp/shishidolab/ja/index.html>



### Education

1994 – 1997 D. E. Hokkaido University (Dpt. Mol. Chem.)

1992 – 1994 M. S. Hokkaido University (Dpt. Chem.)

### Professional Career

2020.04– Present Director, ReHES, Tokyo Metropolitan University

2015.01- Present Fellow of the Royal Society of Chemistry (FRSC)

2013.04– Present Professor, Dpt. Appl. Chem. Env., Tokyo Metropolitan University

2005.12 – 2013.04 Associate Professor, Dpt. Mol. Eng., Kyoto University

2003.04 – 2005.11 Associate Professor, Dpt. Chem., Tokyo Gakugei University

1997.04 – 2003.03 Assistant Professor, Dpt. Appl. Chem., Hiroshima University

### Selected Publications

1. Phosphorus-Enhanced Ru/TiO<sub>2</sub> Catalysts: A Leap in Selective CO<sub>2</sub> to CO Conversion, M. Li, H. Miura, T. Shishido, *Energy & Fuels*, 2024, 38, 10050.
2. Methane activation with nitric oxide at low temperatures on supported Pt catalysts: effects of the support, N. Suganuma, T. Shishido et al., *Catal. Sci. Tech.*, 2023, 13, 3927.
3. Highly Active and Durable Rh–Mo-Based Catalyst for the NO–CO–C<sub>3</sub>H<sub>6</sub>–O<sub>2</sub> Reaction Prepared by Using Hybrid Clustering, S. Hayashi, T. Shishido et al. *ACS Materials Au*, 2023, 3, 456.
4. Diverse Alkyl-Silyl Cross-Coupling via Homolysis of Unactivated C(sp<sup>3</sup>)-O Bonds with the Cooperation of Gold Nanoparticles and Amphoteric Zirconium Oxides, H. Miura, T. Shishido et al., *J. Am. Chem. Soc.*, 2023, 145, 8, 4613.
5. Inhibitory effect of trace impurities on methanol reforming by Cu/ZnO/Al<sub>2</sub>O<sub>3</sub> catalyst: Steam reforming and autothermal reforming of model bio-methanol, K. Nomoto, H. Miura, and T. Shishido, *Appl. Catal. B Environmental*, 2023, 325, 122374.
6. Continuous production of lactic acid from glycerol over bifunctional catalysts under base-free conditions by using a liquid-phase flow reactor, H. Miura, T. Shishido et al., *ACS Sus. Chem. Eng.*, 2022, 10, 12072.

### Research Interests

1. Heterogeneous Catalysis. (supported metal/metal oxide catalysts, solid acid-base catalysts)
2. Hydrogen production and storage
3. Chemical Looping CO<sub>2</sub>
4. Biomass conversion.

### Awards

1. Catalyst Society of Japan 「Award for Young Researchers」
2. The Japan Petroleum Institute Award for Encouragement of Research and Development
3. 2022, 2023 The Japan Petroleum Institute Award for Distinguished Papers