

## Wonyong Choi

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### Education

- 1991 – 1996 Ph. D. California Institute of Technology (Chemistry)
- 1988 – 1990 M. S. Pohang University of Science and Technology (Chemistry)
- 1984 – 1988 B. S. Seoul National University (Chemical technology)

### Professional Career

- 2022.02– Present Distinguished Professor, Korea Institute of Energy Technology (KENTECH)
- 1998.02 – 2022.01 Professor, Pohang University of Science and Technology (POSTECH)
- 1996.06 – 1998.02 Post-doctoral researcher, Jet Propulsion Laboratory (JPL), USA

### Selected Publications

1. Y.-X. Li, Y. Hu, H.-S. Bae, J. Du, S. Zhao, D. Pan, W. Choi\*, “Designing 1 nm-thick MOF nanosheets with donor-acceptor complexes for photosynthesis of H<sub>2</sub>O<sub>2</sub> using water and dioxygen only”, *ACS Nano* 2024, 18, 29233
2. D. Pan, M. Austeria P, S. Lee, H.-S. Bae, F. He, G. H. Gu, W. Choi\*, “Integrated Electrocatalytic Synthesis of Ammonium Nitrate from Dilute NO Gas on Metal Organic Frameworks-Modified Gas Diffusion Electrodes”, *Nature Commun.* 2024, 15:7243.
3. S. Zhao, W. Choi\*, “Ti<sup>3+</sup> Sites on Mesoporous Titania Enable Selective Photocatalytic Decomposition of NO to N<sub>2</sub> and O<sub>2</sub> under Visible Light,” *Chem Catal.* 2024, 4, 101058
4. S. Lee, H.-S. Bae, W. Choi\*, “Selective Control and Characteristics of Water Oxidation and Dioxygen Reduction in Environmental Photo(electro)catalytic Systems”, *Acc. Chem. Res.* 2023, 56, 867

### Research Interests

1. Semiconductor photo(electro)catalysis for environmental and energy applications
2. Photochemical purification of water and air; Advanced oxidation processes (AOPs)
3. Environmental redox processes

### Awards

1. Korea Toray Science and Technology Prize (2024)
2. International member, *U.S. National Academy of Engineering (NAE)*
3. Highly Cited Researcher (Clarivate Analytics, 2019-2024)
4. Korea Engineering Award (2018)
5. Young Scientist Award (2005)