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Born in China in 1966

BSc degree from Nanjing University in 1986

MSc degree from Nanjing University in 1989

PhD degree from Tokyo Institute of Technology in 1996.

Research Associate, Tokyo Institute of Technology, Tohoku University and Hiroshima University, Japan, during 1996-2000

Associate Professor, Hiroshima University, Japan, 2001

Professor, Xiamen University, China, since August of 2001

Director, State Key Laboratory of Physical Chemistry of Solid Surfaces, 2015-2022

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PROFESSIONAL MEMBERSHIP/AWARDS

- Fellow of the Chinese Chemical Society
- Fellow of the Royal Society of Chemistry, FRSC
- Vice Chair of Catalysis Society of China, 2005-2012
- Council Member of International Association of Catalysis Societies, 2012-2022
- Associate Editor of *ACS Catalysis*
- Editorial Board Member of *Catalysis Reviews*, *Applied Catalysis A*, *Chemical Engineering Journal*, *Chinese Journal of Catalysis*, *Journal of Energy Chemistry*, *Green Energy & Environment*
- International Advisory Board Member of *EES Catalysis*
- National Science Fund for Distinguished Young Scholars, 2006
- Catalysis Youth Award of China, 2010

SELECT RECENT PUBLICATIONS

1. Stable Anchoring of Single Rhodium Atoms by Indium in Zeolite Alkane Dehydrogenation Catalysts

L. Zeng, K. Cheng, F. Sun, Q. Fan, L. Li, Q. Zhang, Y. Wei, W. Zhou, J. Kang, Q. Zhang, M. Chen, Q. Liu, L. Zhang, J. Huang, J. Cheng, Z. Jiang, G. Fu, Y. Wang, *Science*, 2024, **383**, 998–1004

2. Selectivity Control by Relay Catalysis in CO and CO₂ Hydrogenation to Multicarbon Compounds

K. Cheng, Y. Li, J. Kang, Q. Zhang, Y. Wang, *Acc. Chem. Res.*, 2024, **57**, 714–725

3. Roles of Copper(I) in Water-Promoted CO₂ Electrolysis to Multi-carbon Compounds

X. He, L. Lin, M. Zhu, Q. Zhang, S. Xie, B. Mei, F. Sun, Z. Jiang, J. Cheng, Y. Wang, *Nat. Commun.*, 2024, **15**, 8224

4. Spinel Nanostructures for the Hydrogenation of CO₂ to Methanol and Hydrocarbon Chemicals

M. Wang, L. Zhang, G. Wang, J. Cui, G. Guan, Y. Miao, J. Wu, P. Gao, F. Yang, Y. Liang, X. Luo, Q. Zhang, G. Fu, K. Cheng, Y. Wang, *J. Am. Chem. Soc.*, 2024, **146**, 14528–14538

5. Selective Oxidation of Methane to Methanol over Au/H-MOR

W. Wang, W. Zhou, Y. Tang, W. Cao, S. R. Docherty, F. Wu, K. Cheng, Q. Zhang, C. Copéret, Y. Wang, *J. Am. Chem. Soc.*, 2023, **145**, 12928–12934

6. Copper Lattice Tension Boosts Full-Cell Electrolysis to Multi-carbon Olefins and Oxygenates

W. Ma, S. Xie, B. Zhang, X. He, X. Liu, B. Mei, F. Sun, Z. Jiang, L. Lin, Q. Zhang, B. Ren, X. Hu, Y. Wang, *Chem*, 2023, **9**, 2161–2177

7. Precisely Constructed Metal Sulfides with Localized Single-atom Rhodium for Photocatalytic C-H Activation and Direct Methanol Coupling to Ethylene Glycol

L. Wang, Y. Sun, F. Zhang, J. Hu, W. Hu, S. Xie, Y. Wang, J. Feng, Y. Li, G. Wang, B. Zhang, H. Wang, Q. Zhang, Y. Wang, *Adv. Mater.*, 2023, **35**, 2205782

8. Tandem Catalysis with Double-shelled Hollow Spheres

J. Xiao, K. Cheng, X. Xie, M. Wang, S. Xing, Y. Liu, T. Hartman, D. Fu, K. Bossers, M. A. van Huis, A. van Blaaderen, Y. Wang, B. M. Weckhuysen, *Nat. Mater.*, 2022, **21**, 572–579

9. Sulfur Vacancy-rich MoS₂ as a Catalyst for the Hydrogenation of CO₂ to Methanol

J. Hu, L. Yu, Deng, J., Y. Wang, K. Cheng, C. Ma, Q. Zhang, W. Wen, S. Yu, Y. Pan, J. Yang, H. Ma, F. Qi, Y. Wang, Y. Zheng, M. Chen, R. Huang, S. Zhang, Z. Zhao, J. Mao, X. Meng, Q. Ji, G. Ho, X. Han, X. Bao, Y. Wang, D. Deng, *Nat. Catal.*, 2021, **4**, 242–250

10. Electrocatalytic Reduction of CO₂ and CO to Multi-carbon Compounds over Cu-based Catalysts

W. Ma, X. He, W. Wang, S. Xie, Q. Zhang, Y. Wang, *Chem. Soc. Rev.*, 2021, **50**, 12897–12914

11. Electrocatalytic Reduction of CO₂ to Ethylene and Ethanol through Hydrogen-assisted C–C Coupling over Fluorine-modified Copper

W. Ma, S. Xie, T. Liu, Q. Fan, J. Ye, S. Sun, Z. Jiang, Q. Zhang, J. Cheng, Y. Wang, *Nat. Catal.*, 2020, **3**, 478–487

12. Single-pass Transformation of Syngas into Ethanol with High Selectivity by Triple Tandem Catalysis

J. Kang, S. He, W. Zhou, Z. Shen, Y. Li, M. Chen, Q. Zhang, Y. Wang, *Nat. Commun.*, 2020, **11**, 827

13. New Horizon in C1 Chemistry: Breaking the Selectivity Limitation in Transformation of Syngas and Hydrogenation of CO₂ into Hydrocarbon Chemicals and Fuels

W. Zhou, K. Cheng, J. Kang, C. Zhou, V. Subramanian, Q. Zhang, Y. Wang, *Chem. Soc. Rev.*, 2019, **48**, 3193–3228

14. Solar Energy-Driven Lignin-first Approach to Full Utilization of Lignocellulosic Biomass under Mild Conditions

X. Wu, X. Fan, S. Xie, J. Lin, J. Cheng, Q. Zhang, L. Chen, Y. Wang, *Nat. Catal.*, 2018, **1**, 772–780

15. Direct Conversion of Syngas into Methyl Acetate, Ethanol, and Ethylene by Relay Catalysis via the Intermediate Dimethyl Ether

W. Zhou, J. Kang, K. Cheng, S. He, J. Shi, C. Zhou, Q. Zhang, J. Chen, L. Peng, M. Chen, Y. Wang, *Angew. Chem. Int. Ed.*, 2018, **57**, 12012–12016