姓 名：高超 副教授

电子邮件：gaoc@ustc.edu.cn

个人简历

2020年4月至今，中国科学技术大学，应用化学系，副教授

2017年-2020年，中国科学技术大学，应用化学系，特任副研究员

2015年-2017年，中国科学技术大学，化学系，博士后

2010年-2015年，中国科学技术大学，博士

2006年-2010年，安徽师范大学，学士

主要研究方向

目前主要从事无机纳米材料可控合成设计及负载组装在光/光电催化CO2转化、N2还原、CH4转化方面的应用研究，以第一作者和共同通讯作者在Journal of the American Chemical Society、Advanced Materials、Chemical Reviews、Chemical Society Reviews等国际期刊上发表论文18篇。

承担科研项目

国家自然科学基金，重大研究计划培育项目，2020.1-2022.12，主持；

国家自然科学基金，青年科学基金项目，2018.1-2020.12，主持；

安徽省自然科学基金，青年项目，2017.7-2019.6，主持；

中国博士后科学基金（一等资助），2015.11-2017.11，主持

奖励与荣誉

中国科学院院长优秀奖（2015）；

博士研究生国家奖学金（2013)；

中国科学院朱李月华优秀博士生奖学金 (2013)；

中国科学技术大学光华奖学金 (2014)

文章及专著

[1] Hu, Y.; Zhan, F.; Wang, Q.; Sun, Y.; Yu, C.; Zhao, X.; Wang, H.; Long, R.; Zhang, G.; Gao, C.\*; Zhang, W.\*; Jiang, J.; Tao, Y.\*; Xiong, Y.\*, “Tracking Mechanistic Pathway of Photocatalytic CO2 Reaction at Ni Sites Using Operando, Time-Resolved Spectroscopy”, J. Am. Chem. Soc., 2020, 142, 5618-5626.

[2] Deng, X.; Li, R.; Wu, S.; Wang, L.; Hu, J.; Ma, J.; Jiang, W.; Zhang, N.; Zheng, X.; Gao, C.\*; Wang, L.; Zhang, Q.\*; Zhu, J.; Xiong, Y.\*, “Metal-Organic Framework Coating Enhances the Performance of Cu2O in Photoelectrochemical CO2 Reduction”, J. Am. Chem. Soc., 2019, 141, 10924-10929.

[3] Zhang, N.; Jalil, A.; Wu, D.; Chen, S.; Liu, Y.; Gao, C.\*; Ye, W.; Qi, Z.; Ju, H.; Wang, C.; Wu, X.\*; Song, L.; Zhu, J.; Xiong, Y.\*, “Refining Defect States in W18O49 by Mo Doping: A Strategy for Tuning N2 Activation towards Solar-Driven Nitrogen Fixation”, J. Am. Chem. Soc., 2018, 140, 9434–9443.

[4] Gao, C.; Chen, S.; Wang, Y.; Wang, J.; Zheng, X.; Zhu, J.; Song, L.\*; Zhang, W. and Xiong, Y.\*, “Heterogeneous Single-Atom Catalyst for Visible-Light-Driven High-Turnover CO2 Reduction: The Role of Electron Transfer”, Adv. Mater., 2018, 30, 1704624.

[5] Gao, C.; Meng Q.; Zhao K.; Yin H.; Wang D.; Guo J.; Zhao S.; Chang L.; He M.; Li Q.; Zhao H.; Huang X.\*; Gao Y.\* and Tang Z.\*, “Co3O4 Hexagonal Platelets with Controllable Facets Enabling Highly Efficient Visible-Light Photocatalytic Reduction of CO2”, Adv. Mater., 2016, 28, 6485-6490.

[6] Gao, C.; Low, J.; Long, R.; Kong, T.; Zhu, J.; Xiong, Y.\*, “Heterogeneous Single-Atom Photocatalysts: Fundamentals and Applications”, Chem. Rev., 2020, DOI: 10.1021/acs.chemrev.9b00840.

1. Gao, C.; Wang J.; Xu H. and Xiong Y.\*, “Coordination Chemistry in the Design of Heterogeneous Photocatalysts” Chem. Soc. Rev., 2017, 46, 2799-2823.

Name: Gao Chao

Associate Professor

E-mail: gaoc@ustc.edu.cn

Personal Resume:

April 2020 - Present: Associate Professor of the Department of Applied Chemistry of the University of Science and Technology of China

2017 - 2020: Special-term Associate Researcher of the Department of Applied Chemistry of the University of Science and Technology of China

2015 - 2017: Postdoctoral Researcher of the Department of Chemistry of the University of Science and Technology of China

2010 - 2015: Ph.D. from the University of Science and Technology of China

2006 - 2010: Bachelor’s Degree from Anhui Normal University

Main Research Directions:

Currently, his research focuses on the controlled synthesis and design of inorganic nanomaterials and the applications of load assembly in photochemical and photoelectrochemical catalysis for CO2 conversion, N2 reduction, and CH4 conversion. He has published 18 papers in international journals such as Journal of the American Chemical Society, Advanced Materials, Chemical Reviews, and Chemical Society Reviews as a first author and joint corresponding author.

Scientific Research Projects:

National Natural Science Foundation of China, Major Research Plan Project, 2020.1-2022.12, Principal Investigator;

National Natural Science Foundation of China, Youth Science Fund Project, 2018.1-2020.12, Principal Investigator;

Anhui Provincial Natural Science Foundation, Youth Science Fund Project, 2017.7-2019.6, Principal Investigator;

China Postdoctoral Science Foundation (First-Class Funding), 2015.11-2017.11, Principal Investigator

Awards and Honors:

President’s Excellence Award of Chinese Academy of Sciences (2015);

National Scholarship for Doctoral Students (2013);

Zhu Li Yuehua Excellent Doctoral Student Award of Chinese Academy of Sciences (2013);

Guanghua Scholarship of the University of Science and Technology of China (2014)

Publications and Monographs:

[1] Hu, Y.; Zhan, F.; Wang, Q.; Sun, Y.; Yu, C.; Zhao, X.; Wang, H.; Long, R.; Zhang, G.; Gao, C.\*; Zhang, W.\*; Jiang, J.; Tao, Y.\*; Xiong, Y.\*, “Tracking Mechanistic Pathway of Photocatalytic CO2 Reaction at Ni Sites Using Operando, Time-Resolved Spectroscopy”, J. Am. Chem. Soc., 2020, 142, 5618-5626.

[2] Deng, X.; Li, R.; Wu, S.; Wang, L.; Hu, J.; Ma, J.; Jiang, W.; Zhang, N.; Zheng, X.; Gao, C.\*; Wang, L.; Zhang, Q.\*; Zhu, J.; Xiong, Y.\*, “Metal-Organic Framework Coating Enhances the Performance of Cu2O in Photoelectrochemical CO2 Reduction”, J. Am. Chem. Soc., 2019, 141, 10924-10929.

[3] Zhang, N.; Jalil, A.; Wu, D.; Chen, S.; Liu, Y.; Gao, C.\*; Ye, W.; Qi, Z.; Ju, H.; Wang, C.; Wu, X.\*; Song, L.; Zhu, J.; Xiong, Y.\*, “Refining Defect States in W18O49 by Mo Doping: A Strategy for Tuning N2 Activation towards Solar-Driven Nitrogen Fixation”, J. Am. Chem. Soc., 2018, 140, 9434-9443.

[4] Gao, C.; Chen, S.; Wang, Y.; Wang, J.; Zheng, X.; Zhu, J.; Song, L.\*; Zhang, W. and Xiong, Y.\*, “Heterogeneous Single-Atom Catalyst for Visible-Light-Driven High-Turnover CO2 Reduction: The Role of Electron Transfer”, Adv. Mater., 2018, 30, 1704624.

[5] Gao, C.; Meng Q.; Zhao K.; Yin H.; Wang D.; Guo J.; Zhao S.; Chang L.; He M.; Li Q.; Zhao H.; Huang X.\*; Gao Y.\* and Tang Z.\*, “Co3O4 Hexagonal Platelets with Controllable Facets Enabling Highly Efficient Visible-Light Photocatalytic Reduction of CO2”, Adv. Mater., 2016, 28, 6485-6490.

[6] Gao, C.; Low, J.; Long, R.; Kong, T.; Zhu, J.; Xiong, Y.\*, “Heterogeneous Single-Atom Photocatalysts: Fundamentals and Applications”, Chem. Rev., 2020, DOI: 10.1021/acs.chemrev.9b00840.

[7] Gao, C.; Wang J.; Xu H. and Xiong Y.\*, “Coordination Chemistry in the Design of Heterogeneous Photocatalysts” Chem. Soc. Rev., 2017, 46, 2799-2823.