# Associate Professor

**Macau University of Science and Technology**

Macau Environmental Research Institute

Faculty of Innovation Engineering

PhD. Supervisor

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## Academic Qualification:

Ph.D in Environmental Sciences, Nankai University, Tianjin, China

MSc in Environmental Sciences, Nankai University, Tianjin, China

BSc in Environmental Sciences, Nankai University, Tianjin, China

## Teaching Area

Atmospheric Environment; Environment and Sustainable Development; Environmental Sciences

## Research Area

Atmospheric chemistry; Emission inventory; Air quality modeling and forecasting

## Working Experience

Assistant Professor, Macau Environmental Research Institute, Macau University of Science and Technology (MUST) (Sep 2016 -);

Assistant Professor, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (RCEES) (July 2011- Aug 2016).

## Research Grants

2023-2027     Principle Investigator, the 14th Five-year Plan of National Key Research and Development Project "Comprehensive Prevention and Control Technology Demonstration and Practice for Synergistic Response to Secondary Pollution and Climate Change in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA)" (2023YFC3709200), the fifth topic "Development and demonstration of Fine-grained Air Quality Management Techniques for High Density Cities in the Greater Bay Area" (2023YFC3709205), Ministry of Science and Technology of China.

2023-2024     Principal Investigator, "Emission Inventories of Atmospheric Pollutants and Greenhouse Gases in 2022-2023 for Macau", Macao Environmental Protection Bureau, 041/DPA/DPAA/2022

2022−2025     Principal Investigator, "Fine-grained characterization of vehicle emissions and management mechanisms with the aim of controlling $PM_{2.5}$ and $O_3$ pollution in Macau", Joint funding NFSC-FDCT Project, 0023/2022/AFJ

2022             Principal Investigator, "Emission Inventories of Atmospheric Pollutants and Greenhouse Gases in 2021 for Macau", Macao Environmental Protection Bureau, 041/DPA/DPAA/2022

2021-2024 Principal Investigator, "Characterization, Causes and Source Apportionment of Photochemical Air Pollution in Macao", the Science and Technology Development Fund (FDCT) of Macao, 0064/2020/A2

2020-2023 Principal Investigator, "Key Integrated techniques for detoxification of fly ash from municipal solid waste incinerators (MSWIs)", Joint funding MOST-FDCT Project, 0009/2019/AMJ

2020-2021 Principal Investigator, "Emission Inventories of Atmospheric Pollutants and Greenhouse Gases in 2020 for Macau", Macao Environmental Protection Bureau, 072/CON/DSPA/2020

2020 Principal Investigator, "Emission Inventories of Atmospheric Pollutants and Greenhouse Gases in Macau in 2019 for Macau", Macao Environmental Protection Bureau, 006/CON/DSPA/2020

2019-2020 Principal Investigator, "Emission Inventories of Atmospheric Pollutants and Greenhouse Gases in 2018 for Macau", Macao Environmental Protection Bureau, 006/CON/DSPA/2019

## Representative Publications (Complete publication refer to my webpage)

Jinlong Zhang, Yinyan Huang, Ning Zhou, Zhijiong Huang*, Bowen Shi, Xin Yuan, Li Sheng, Andi Zhang, **Yan You***, Duohong Chen, Xiaofeng Huang, Junyu Zheng. Contribution of anthropogenic emission changes to the evolution of $PM_{2.5}$ concentrations and composition in the Pearl River Delta during the period of 2006–2020, Atmospheric Environment, Volume 318, 1 February 2024, 120228

Liqiang He, **Yan You**, Xuan Zheng, Shaojun Zhang, Zhenhua Li, Zikai Zhang, Ye Wu, Jiming Hao .The impacts from cold start and road grade on real-world emissions and fuel consumption of gasoline, diesel and hybrid-electric light-duty passenger vehicles. Science of The Total Environment, Volume 851, Part 1, 10 December 2022, 158045

HaoYin, Youwen Sun*, **Yan You***, Justus Notholt, Mathias Palm, Wei Wang, Changgong Shan, Cheng Liu. Using machine learning approach to reproduce the measured feature and understand the model-to-measurement discrepancy of atmospheric formaldehyde. Science of The Total Environment, Volume 851, Part 2, 10 December 2022, 158271

Jia Jia*,[†], **Yan You***,[†], Shanlin Yang and Qingmei Shang. Analysis of the Effect of Economic Development on Air Quality in Jiangsu Province Using Satellite Remote Sensing and Statistical Modeling, Atmosphere. 2022 13(5), 697.

Xuan Zheng, Xiao He, **Yan You**, Shaojun Zhang, Bin Zhao, Xuan Wang, Guanghan Huang, Ting Chen, Yihuan Cao, Liqiang He, Xing Chang, Shuxiao Wang, Ye Wu. Comprehensive chemical characterization of gaseous I/SVOC emissions from heavy-duty diesel vehicles using two-dimensional gas chromatography time-of-flight mass spectrometry. Environmental Pollution, 2022, 35:119284.

Ting Chen, Xuan Zheng, Xiao He, **Yan You**, Guanghan Huang, Yihuan Cao, Liqiang He, Yanping Mao, Ye Wu. Comprehensive characterization of polycyclic aromatic hydrocarbon emissions from heavy-duty diesel vehicles utilizing GC × GC-ToF-MS. Science of the Total Environment, 2022,833: 155127.

Yongming Ju#, Dongyang Deng, Honghua Li#, **Yan You#**, Junqin Qiao, Lianghu Su, Weilong Xing, Mengyuan Liang, Dionysios D. Dionysiou. Rapid detoxification of dioxin and simultaneous stabilization of targeted heavy metals: New insight into a microwave-induced pyrolysis of fly ash. Chemical Engineering Journal, 2021, 131939

Zhongcai Wang, Qingbin Song*, **Yan You**, Huabo Duan, Wenyi Yuan, Jinhui Li. Identifying the lifecycle ODP and GWP effects of the refrigerants from household air-conditioners in Macau, Environmental Impact Assessment Review, Volume 90, September 2021, 106639

YongmingJu, KairuZhang, TiantianYang, DongyangDeng, JunqinQiao, Pu Wang, **Yan You**, Ling Du, Guihua Chen, Dorota Kołodyńska, Dionysios D. Dionysiou. The influence of a washing pretreatment containing phosphate anions on single-mode microwave-based detoxification of fly ash from municipal solid waste incinerators. Chemical Engineering Journal, 387, 1 May 2020, 124053

Bin Han[*], **Yan You**[*], Yating Liu, Jia Xu, Jian Zhou, Jiefeng Zhang, Can Niu, Nan Zhang, Fei He, Xiao Ding, Zhipeng Bai. Inhalation cancer risk estimation of source-specific personal exposure for particulate matter-bound polycyclic aromatic hydrocarbons (PAHs) based on positive matrix factorization. 2019. Environmental Science and Pollution Research, 26(10): 10230–10239.

## Journal Editorship

Early Career Board Member of Eco-Environmental Health

## Personal Website