

## Assistant Professor (Research) Jiang, Sabrina Yanan

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Faculty of Innovation Engineering  
Macau Environmental Research Institute  
Macau University of Science and Technology

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### Academic Qualification

- 2014-2018    Ph.D in School of Energy and Environment, City University of Hong Kong
- 2010-2012    MPhil in Analytical Chemistry, Baptist University of Hong Kong
- 2006-2010    Bachelor of Science (Honor) in Environmental Science

### Teaching Area

Climate Change  
Environmental Science  
Experimental of Analytical Chemistry

### Research Area

- ✧ Water Pollution: Fate, source, pathway, transformation, degradation, and toxicity of metals and organic pollutants (PPCPs, Microplastics) in aquatic environment
- ✧ Atmospheric Chemistry: source appointment, speciation, transformation and reactive oxidative potential of metals and organic compounds in size-segregated particulate matter (PM)
- ✧ Analytical Chemistry: method development and validation, qualitative and quantitative analyses, chromatography and spectrometry

### Working Experience

- 09/2021-present    Assistant Professor, Macao Environmental Research Institute, Macao University of Science and Technology
- 08/2019-08/2021    Research Fellow, Beijing Normal University-Hong Kong Baptist University United International College
- 09/2018-08/2019    Postdoctoral fellow, The Hong Kong University of Science and Technology
- 01/2013-08/2014    Research Assistant, City University of Hong Kong

## Research Grants

- ✧ Research Platform and Research Project from Guangdong Department of Education (2021-2023), The occurrence and distribution of antibiotics in wastewater in Pearl River Delta area. (Principal Investigator). ( ¥ 60,000)
- ✧ 2021-2023, 开发固体废料制备多功能吸附剂技术支持乡村振兴, 2020 年度广东省高校重点平台和科研项目. (Participant). ( ¥ 200,000)
- ✧ 2021-2023, Modification of Montmorillonite for Fabrication of Multifunctional Adsorbent Leading to Modification of Mineral Solid Waste Material. Beijing Normal University-Hong Kong Baptist University United International College grant, (Participant). ( ¥ 70,000)
- ✧ United International College Research Grant (2021-2023, Project No. R202102). “Social and non-social orienting in depressed and neurotypical individuals.” (Participant). ( ¥ 100,000)
- ✧ United International College Research Grant (2020-2022, Project No. R202011). Neurotoxic metals, brain activity, cognitive decline, and their interactions in the degenerative course of Alzheimer's disease. (Co-principal Investigator). ( ¥ 200,000)
- ✧ Research Grant of the Council of Hong Kong SAR (GRF) (2016-2019, GRF Project No.11263216) Transformation of water soluble iron speciation in particulate matter: evidence in the atmosphere and implication on particle oxidative potential. (Co-principal Investigator). (HKD 600,000)
- ✧ Research Grant of the Council of Hong Kong SAR (GRF) (Project No. HKBU 201210). Evaluating the environmental impact of artificial sweeteners: A study of their distributions, photodegradation and toxicities. (Co-principal Investigator). (HKD 800,000)

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

- He Z., Chen J., Lu J., **Jiang S. Y.\***, Su L., Lee C. and Ruan H. D.\*, (2022), Batch and Column Adsorption of Phosphorus by Modified Montmorillonite. *Applied Sciences* 12 :5703. Impact Factor : 2.84
- Chen J., Lu J., Su L., Ruan H., Zhao Y., Lee C., Cai Z., Wu Z., **Jiang Y.\***, (2022), Enhanced Adsorption of Methyl Orange by Mongolian Montmorillonite after Aluminum Pillaring. *Applied Sciences* 12 (6): 3182. Impact Factor : 2.84
- Wang D.J, Su L.C, Ruan H.D.\*, Chen. J.J., Lu J.Z., Lee C.-H. and **Jiang S.Y.\***, (2021). Quantitative and qualitative determination of microplastics in oyster, seawater and sediment from the coastal areas in Zhuhai, China. *Marine Pollution Bulletin*. 164 :112000. Impact Factor : 7.00
- Li, Y., Wang, Y., Jin, X., Niu, D., Zhang, L., **Jiang, S.Y.**, Ruan, H.D., Ho, G.W.\* (2020). Sex differences in hemispheric lateralization of attentional networks. *Psychological Research*. Impact Factor : 2.95

**Jiang S.Y.**, Gali. N.K., Ruan. H. D., Ning Z\*., (2020) Photo-oxidation of particle phase iron species dominates the generation of reactive oxygen species in secondary aerosol. *Science of the Total Environment*. 723 : 137994. Impact Factor : 10.75

**Jiang S.Y.**, Gali. N.K., Yang F.H., Zhang J.K., Ning Z\*., (2017) Chemical characterization of size-segregated PM from different public transport modes and implications of source specific contribution to public exposure. *Environ Sci Pollut Res* 24:20029–20040. Impact Factor : 5.19

Gali. N.K., **Jiang S.Y.**, Yang F.H., Sun L., Ning Z\*., (2017) Redox characteristics of size-segregated PM from different public transport microenvironments in Hong Kong. *Air Qual Atmos Health* , 1–12. Impact Factor : 5.80

Chan K.L., **Jiang S.Y.**, Ning Z\*. (2016) Speciation of water soluble iron in size segregated airborne particulate matter using LED based liquid waveguide with a novel dispersive absorption spectroscopic measurement technique. *Analytica Chimica Acta* 914, 100-109. Impact Factor : 6.91

**Jiang S.Y.**, Kaul D.S., Yang F.H. Sun L. Ning Z.\* (2015) Source apportionment and water solubility of metals in size segregated particles in urban environments. *Science of the Total Environment* 533, 347–355. Impact Factor : 10.75

Gali N.K., Yang F.H., **Jiang S.Y.**, Chan K.L., Sun L., Ho K.F., Ning Z.\* (2015) Spatial and seasonal heterogeneity of atmospheric particles induced reactive oxygen species in urban areas and the role of water-soluble metals. *Environmental Pollution* 198, 86-96. Impact Factor : 9.98

Wubuliharen M., **Jiang, S.Y.**, Ning Z.\* (2015) Prototype Development and Laboratory Evaluation of an Aerosol to Hydrosol Sampler. *Aerosol and Air Quality Research*, (15) 776–785. Impact Factor : 4.53

**Jiang, S.Y.**, Yang F.H., Chan K.L., Ning Z.\* (2014) Water solubility of metals in coarse PM and PM<sub>2.5</sub> in typical urban environment in Hong Kong. *Atmospheric Pollution Research* (5) 236-244. Impact Factor : 4.83

Sang Z.Y.<sup>1</sup>, **Jiang Y.N.**<sup>1</sup> (**Co-first author**, two authors contributed equally to this paper) Tsoi Y.K., Leung K.S.Y.\* (2014) Evaluating the environmental impact of artificial sweeteners: A study of their distributions, photodegradation and toxicities. *Water research* 52, 260-274. Impact Factor : 13.40

**Jiang, S.Y.N.**, Su.L.C., Ruan H.D.\*, Zhang G.F., Lai S.Y., Lee C.H., Yu C.F., Wu Z., Chen X., He S. (2014) Adsorption of phosphorus by modified clay mineral waste material relating to removal of it from aquatic system. *International Journal of Environmental Monitoring and Analysis*, Volume 2, Issue 1, 36-44.

**Jiang, Y.N.**, Ruan, H.D.\*, Lai, S.Y., Lee, C.H., Yu, C.F., Wu, Z., Chen, X., He, S. (2013) Recycling of solid waste material in Hong Kong: I. Properties of modified clay mineral waste material and its application for removal of cadmium in water. *Earth Sci.* 2(2), 40-46.

**Jiang, S. Y. N.**, Yang F.H., Chan K.L., and Ning Z. (2015) Investigation of metals in PM<sub>2.5</sub> and coarse PM at in typical urban environment in Hong Kong. *The 2015 European Aerosol Conference (EAC 2015)*

6<sup>th</sup>-11<sup>th</sup> Sept., 2015. Milan, Italy.

**Jiang, Y.N.**, Ruan, H.D., Zhang, G.F., Lai, S.Y., Lee, C.H., Yu, C.F., Wu, Z., Chen, X., He, S. (2013) Recycling of Solid Waste Material: II. Phosphate Adsorption by Modified Clay Mineral Waste Material Relating to Remediation of Eutrophication in Aquatic Systems. *2013 International Symposium on Engineering and Natural Science (ISEANS)*, August 29-31, Macau.

**Jiang, Y.N.** and Leung K.S.Y. (2012) Probing the environmental fate of emerging pollutants. *The 19<sup>th</sup> Symposium on Chemistry Postgraduate Research in Hong Kong*. 14<sup>th</sup> April, 2012. The Hong Kong University of Science and Technology. AE-14.

**Jiang, Y.N.**, Ruan, H.D., Lai, S.Y., Yu, C.F., Lee, C.H., Wu Z., Chen, X. and He, S. (2011) Effects of ionic strength and pH on phosphate adsorption by modified clay mineral waste material. *International conference on Solid Waste 2011, Moving towards Sustainable Resource Management*. Hong Kong SAR, China, 3-7 May 2011.

**Jiang, Y.N.**, Lin, Z.Q., Ruan, H.D., Lai, S.Y., Yu, C.F., Lee, C.H. and Wu Z. (2011) Application of a modified clay mineral waste material for the removal of cadmium (II) in water. *International conference on Solid Waste 2011, Moving towards Sustainable Resource Management*. Hong Kong SAR, China, 3-7 May 2011.

#### Professional Certification and Awards

2016-2017	Outstanding Academic Performance
2016-2017	Research Tuition Scholarships
2015-2016	Outstanding Academic Performance
2015-2016	Research Tuition Scholarships
2014-2017	Government Funds-University Grants Committee
2010-2012	HKBU Postgraduate Research Fund
2010	Top Award of Chinese Culture in HKBU

#### Journal Editorship

#### Personal Website

<https://scholar.google.com/citations?user=Wx-PiJQAAAAJ&hl=zh-CN&oi=sra>