

<u>基本信息</u>	
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职务	无
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<u>教育背景</u>	
1998.02-2000.12	南京大学，物理化学专业，理学博士
1994.09-1997.07	西北大学，无机化学专业，理学硕士
1990.09-1994.07	内蒙古民族大学，化学教育专业，理学学士
<u>工作经历</u>	
2005.04-至今	北京理工大学化学与化工学院，副教授
2003.10-2005.03	日本东京理科大学工学院，博士后
2001.02-2003.09	中国科学院化学研究所，有机固体重点实验室，博士后
<u>研究方向</u>	
1.	大气颗粒物的结构与化学性能研究
2.	界面光谱研究
3.	纳米颗粒物的功能化组装
<u>荣誉奖励</u>	
1.	无
<u>承担项目</u>	
1.	红外光谱研究气溶胶颗粒爆发式增长与环境相对湿度的相关性，国家自然科学基金重大研究计划培育项目（91644101），2017.01-2019.12，100 万元，主持

2.	气溶胶新生粒子的成核和生长动力学原位谱学监测，国家自然科学基金面上项目（21373026），2014.01-2017.12，83 万元，主持
3.	“双面神”纳米粒子的设计，合成与组装，国家自然科学基金青年项目（20603002），2007.01-2009.12，83 万元，主持
4.	气溶胶表面动力学过程的原位谱和理论化学计算模拟，国家自然科学基金重点项目（20933001），2010.01-2013.12，200 万元，参与

研究成果

主持国家自然科学基金项目 3 项；参与国家自然科学基金项目等 1 项。迄今在国内外学术刊物及会议上发表学术论文 100 余篇，其中 SCI 收录 60 余篇，EI 收录 20 余篇，获授权专利 3 项。

1.	运用红外光谱、拉曼光谱手段研究了大气气溶胶颗粒物的吸湿性，从分子水平上进行了详细的分析
2.	运用显微红外光谱手段根据Mie 散射理论结合实验条件，提出了获得 2.5-25 μm 颗粒物消光效率的计算方法。
3.	运用脉动湿度—真空红外技术联用技术研究了颗粒物内水传输过程，结合文献和红外光谱，通过 KWW 拟合，计算了蔗糖在低湿度的迟豫时间和扩散系数。
4.	建立了脉动—真空红外联合装置，可以同步测试气溶胶颗粒内的化学组分和相对湿度，时间分辨达到微秒级。改变环境相对湿度进行脉动式变化，调节最低湿度，可以调控气溶胶颗粒进行分部结晶。
5.	研究了大气颗粒物表面发生的各种非均相反应，得到了动力学参数。

代表性论文

1.	Chun-Yun Du, Hui Yang, Na Wang, Shu-Feng Pang*, Yun-Hong Zhang*, pH effect on the release of NH ₃ from the internally mixed sodium succinate and ammonium sulfate aerosols, Atmospheric Environment 220 (2020) 117101
2.	Miao Yang , Shuai-Shuai Ma , Hamad Ashraf , Shu-Feng Pang*, Yun-Hong Zhang*, The influence of SO ₂ as the Criegee intermediate scavenger on the heterogeneous oxidation of oleic acid, Atmospheric Environment 231 (2020) 117560
3.	Ping Yang, Hui Yang, Na Wang, Chunyun Du, Shufeng Pang*, Yunhong Zhang, Hygroscopicity measurement of sodium carbonate, β -alanine and internally mixed β -alanine/Na ₂ CO ₃ particles by ATR-FTIR, Journal of Environmental Science (2020),250-259
4.	Na Wang, Bo Jing, Pan Wang, Zhen Wang, Jiarong Li, Shufeng Pang,* Yunhong Zhang,* and Maofa Ge, Hygroscopicity and Compositional Evolution of Atmospheric Aerosols Containing Water-Soluble Carboxylic Acid Salts and Ammonium Sulfate: Influence of Ammonium Depletion, Environmental Science & Technology 53(2019)

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5.	Hui Yang, Na Wang, Shu-Feng Pang*, Chuan-Ming Zheng, Yun-Hong Zhang*, Chemical reaction between sodium pyruvate and ammonium sulfate in aerosol particles and resultant sodium sulfate efflorescence, <i>Chemosphere</i> 215 (2019) 554-562
6.	Pan Wang, Na Wang, Shu-Feng Pang*, Yun-Hong Zhang*, Hygroscopicity of internally mixed particles glycine/NaNO ₃ studied by FTIR-ATR technique, <i>Journal of Aerosol Science</i> 116 (2018) 25–33
7.	Feng-Min Wu, Na Wang, Shu-Feng Pang*, Yun-Hong Zhang*, Hygroscopic behavior and fractional crystallization of mixed (NH ₄) ₂ SO ₄ /glutaric acid aerosols by vacuum FTIR, <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 208 (2019) 255–261
8.	Xu Shao, Feng-MinWu, Hui Yang, Shu-Feng Pang*, Yun-Hong Zhang*, Observing HNO ₃ release dependent upon metal complexes in malonic acid/nitrate droplets, <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 201 (2018) 399–404
9.	Na Wang, Chen Cai, Xiang He, Shu-Feng Pang*, Yun-Hong Zhang*, Vacuum FTIR study on the hygroscopicity of magnesium acetate aerosols, <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 192 (2018) 420–426
10.	Xu Shao, Yun Zhang, Shu-Feng Pang*, Yun-Hong Zhang*, Vacuum FTIR observation on hygroscopic properties and phase transition of malonic acid aerosols, <i>Chemical Physics</i> 483–484 (2017) 7–11
11.	Xiang He, Chunbo Leng, Shufeng Pang* and Yunhong Zhang*, Kinetics study of heterogeneous reactions of ozone with unsaturated fatty acid single droplets using micro-FTIR spectroscopy, <i>RSC Advances</i> , 7 (2017) 3204–3213
12.	Shu-Feng Pang*, Jing Wang, Yun Zhang, Chun-Bo Leng, Yun-Hong Zhang*, A new method for estimating the extinction efficiency of polystyrene microsphere by micro-FTIR spectroscopy, <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 181 (2017) 249–253
13.	Yi Zhao, NaWang, Shu-Feng Pang*, Yun-Hong Zhang, In-situ micro-FTIR spectroscopic observation on the hydration process of <i>Poria cocos</i> , <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> 164 (2016) 61–66
14.	Dan-Ting Tan, Chen Cai, Yun Zhang, Na Wang, Shu-Feng Pang*, Yun-Hong Zhang*, Crystallization kinetics from mixture Na ₂ SO ₄ /glycerol droplets of Na ₂ SO ₄ by FTIR-ATR, <i>Chemical Physics</i> 475 (2016) 131–135
15.	Dan-Ting Tan, Xu Shao, Shu-Feng Pang *, Yun-Hong Zhang, The effect of CTAB on Na ₂ SO ₄ nucleation in mixed Na ₂ SO ₄ /CTAB aerosols by FTIR-ATR technology, <i>Chinese Chemical Letters</i> 27 (2016) 1073–1076
16.	Shan Han, Ye-Mei Luan, Shu-Feng Pang*, Yun-Hong Zhang *, Thermodynamic and spectroscopic analysis of the conformational transition of poly(vinyl alcohol) by temperature-dependent FTIR.
17.	Shu-Feng Pang*, Chang-Qin Wu, Qing-Nuan Zhang, Yun-Hong Zhang, The structural evolution of magnesium acetate complex in aerosols by FTIR–ATR spectra, <i>Journal of Molecular Structure</i> 1087 (2015) 46–50

18.	Xiao-Ning Feng, Hong-Nan Chen, Ye-Mei Luan, See-Hua Tan, Shu-Feng Pang*, Yun-Hong Zhang*, In-situ FTIR-ATR spectroscopic observation on the dynamic efflorescence/deliquescence processes of Na ₂ SO ₄ and mixed Na ₂ SO ₄ /glycerol droplets, Chemical Physics 430 (2014) 78–83
19.	Kamran Ajmal Syed, Shu-Feng Pang,* Yun Zhang, and Yun-Hong Zhang*, Micro-Raman observation on the H ₂ PO ₄ – association structures in a supersaturated droplet of potassium dihydrogen phosphate (KH ₂ PO ₄), The Journal of Chemical Physics 138, (2013) 024901
20.	Kamran Ajmal Syed, Shu-Feng Pang,* Yun Zhang, Guang Zeng, and Yun-Hong Zhang*, Micro-Raman Observation on the HPO ₄ ²⁻ Association Structures in an Individual Dipotassium Hydrogen Phosphate (K ₂ HPO ₄) Droplet, Journal of Physical Chemistry A116 (2012) 1558–1564
21.	Xin Zhang, Shufeng Pang*, Zhigang Zhang, Xunlei Ding, Shanlin Zhang, Shenggui He, Chuanlang Zhan*, Facile synthesis of 1-bromo-7-alkoxyl perylene diimide dyes: toward unsymmetrical functionalizations at the 1,7-positions, Tetrahedron Letters 53 (2012) 1094–1097