

Quanqing Zhang

Department of Chemistry, University of California at Riverside, Riverside, CA 92521

Email: quanqinz@ucr.edu Tel: +1 5715238063

Education

- **2018-present UC Riverside (Postdoctoral Fellow)**
Supervisor: Prof. Yinsheng Wang
Major: Biochemistry
- **2015-2018 Fudan University (doctor's degree)**
Supervisor: Prof. Pengyuan Yang
Major: analytical chemistry
- **2012-2015 National institute of metrology (master's degree)**
Supervisor: Prof. Qinghe Zhang & Prof. Hanfa Zou
Major: analytical chemistry
- **2008-2012 Heilongjiang University (bachelor's degree)**
Supervisor: President/Prof. Honggang Fu
Major: applied chemistry

Journal Publications

- **Quanqing Zhang**, Xuejiao Dong, Jiuwei Lu, Jikui Song, Yinsheng Wang, Chemoproteomic approach toward probing the interactomes of perfluoroalkyl substances, *Analytical Chemistry*, 2021, 93(27), 9634–9639.
- **Quanqing Zhang**, Yuanyu Huang, Biyun Jiang, Yajun Hu, Juanjuan Xie, Xing Gao, Bin Jia, Huali Shen, Weijia Zhang, Pengyuan Yang, In situ synthesis of magnetic mesoporous phenolic resin for the selective enrichment of glycopeptides, *Analytical Chemistry*, 2018, 90 (12), 7357–7363.
- **Quanqing Zhang**, Yuanyu Huang, Haofan Sun, Yangyang Gan, Huali Shen, Bin Jia, Pengyuan Yang, Facile preparation of 3-D floor-like ordered mesoporous carbon functionalized graphene composites and the application for selective enrichment of N-

glycans from human serum, *Talanta*, 2017, 174, 689–695.

- **Quanqing Zhang**, Qinghe Zhang, Zhichao Xiong, Hao Wan, Xiaoting Chen, Hongmei Li, Hanfa Zou, Facile preparation of mesoporous carbon–silica-coated graphene for the selective enrichment of endogenous peptides, *Talanta*, 2016, 146, 272–278.
- **Quanqing Zhang**, Qinghe Zhang, Zhichao Xiong, Hao Wan, Xiaoting Chen, Hanfa Zou, Facile preparation of carbon-functionalized ordered magnetic mesoporous silica composites for highly selective enrichment of N-glycans, *RSC Advances*, 2015, 5(84), 68972–68980.
- **Quanqing Zhang**, Lei Zhang, Xiaodi Gao, Weibing Zhang, Qinghe Zhang, Protein enrichment based on large volume recycling injections, *Chinese Journal of Chromatography*, 2014, 32(11), 1271–1274.
- **Quanqing Zhang**, Haiyu Tian, Lingyi Zhang, Study on flocculation purification and polysaccharide composition of chinese caterpillar fungus fermentation effluent. *Chinese Journal of Modern Instrument*, 2009, 3, 18–20.
- Siyuan Kong, **Quanqing Zhang**, Lujie Yang, Yuanyu Huang, Mingqi Liu, Guoquan Yan, Huanhuan Zhao, Mengxi Wu, Xiangmin Zhang, Pengyuan Yang, Weiqian Cao, Effective Enrichment Strategy Using Boronic Acid-Functionalized Mesoporous Graphene–Silica Composites for Intact N- and O-Linked Glycopeptide Analysis in Human Serum, *Analytical Chemistry*, 2021, 93(17), 6682–6691.
- Yuanyu Huang, **Quanqing Zhang**, Lujie Yang, Ling Lin, Juanjuan Xie, Jun Yao, Xinwen Zhou, Lei Zhang, Huali Shen, Pengyuan Yang, Puromycin-Modified Silica Microsphere-Based Nascent Proteomics Method for Rapid and Deep Nascent Proteome Profile, *Analytical Chemistry*, 2021, 93(16), 6403–6413
- Zhenxin Wang, **Quanqing Zhang**, Huali Shen, Pengyuan Yang, Xinwen Zhou, Optimization strategy for characterizing polymer preparation method based on MALDI-TOF MS, *Frontiers in Chemistry*, 2021, 9, 698297.
- Lujie Yang, **Quanqing Zhang**, Ling Lin, Ying Xu, Yuanyu Huang, Zuojian Hu, Ke Wang, Cuiping Zhang, Pengyuan Yang, Hongxiu Yu, Microarray investigation of glycan remodeling during macrophage polarization reveals α 2, 6 sialic acid as an anti-inflammatory indicator, *Molecular Omics*, 2021.
- Mengxi Wu, **Quanqing Zhang**, Xinwen Zhou, Siyuan Kong, Huanhuan Zhao, Mingqi Liu, Pengyuan Yang, Weiqian Cao, An ultrafast and highly efficient enrichment method for both N-Glycopeptides and N-Glycans by bacterial cellulose, *Analytica Chimica Acta*, 2020, 1140, 60–68.
- Lujie Yang, **Quanqing Zhang**, Yuanyu Huang, Ling Lin, Hartmut Schlüter, Ke Wang,

Cuiping Zhang, Pengyuan Yang, Hongxiu Yu, Boronic acid-functionalized mesoporous magnetic particles with a hydrophilic surface for the multimodal enrichment of glycopeptides for glycoproteomics, *Analyst*, 2020, 145, 5252-5259.

- Yuanyu Huang, **Quanqing Zhang**, Huali Shen, Weijia Zhang, Pengyuan Yang, Aperture-controllable nano-electrospray emitter and its application in cardiac proteome analysis, *Talanta*, 2020, 207, 120340
- Yangyang Gan, **Quanqing Zhang**, Yajing Chen, Yiman Zhao, Zhichao Xiong, Lingyi Zhang, Weibing Zhang, Selective extraction of endogenous peptides from human serum with magnetic mesoporous carbon composites, *Talanta*, 2016, 161, 647–654.
- Haofan Sun, **Quanqing Zhang**, Lei Zhang, Weibing Zhang, Lingyi Zhang, Facile preparation of molybdenum (VI) oxide-modified graphene oxide nanocomposite for specific enrichment of phosphopeptides, *Journal of Chromatography A*, 2017, 1521, 36–43.
- Fangyuan Gao, **Quanqing Zhang**, Xiuqin Li, Qinghe Zhang, Ting Mao, Yong Lu, Weibing Zhang, Hongmei Li, Comparison of standard addition and conventional isotope dilution mass spectrometry for the quantification of endogenous progesterone in milk, *Accred Qual Assur*, 2016, 6, 395–401.
- Yameng Zhao, **Quanqing Zhang**, Lingyi Zhang, Weibing Zhang, Preparation of mesoporous carbon material derived from Metal-Organic Frameworks and its application in selective capture of endogenous peptides from human serum, *Talanta*, 2019, 200, 443-449
- Fengjuan Ding, Zhanying Chu, **Quanqing Zhang**, Haiyan Liu, Weibing Zhang, Facile synthesis of layered mesoporous covalent organic polymers for highly selective enrichment of N-glycopeptides, *Analytica chimica acta*, 2019, 1057, 145-151
- Yajing Chen, Zhichao Xiong, Lingyi Zhang, Jiaying Zhao, **Quanqing Zhang**, Li Peng, Weibing Zhang, Mingliang Ye, Hanfa Zou, Facile synthesis of zwitterionic polymer-coated core-shell magnetic nanoparticles for highly specific capture of N-linked glycopeptides, *Nanoscale*, 2015, 7(7), 3100–3108.
- Hao Wan, Yi Zhang, Zheyi Liu, Guiju Xu, Guang Huang, Yongsheng Ji, Zhichao Xiong, **Quanqing Zhang**, Jing Dong, Weibing Zhang, Hanfa Zou, Facile fabrication of a near-infrared responsive nanocarrier for spatiotemporally controlled chemo-photothermal synergistic cancer therapy, *Nanoscale*, 2014, 6(15), 8743–8753.
- Zhichao Xiong, Lingyi Zhang, Chunli Fang, **Quanqing Zhang**, Yongsheng Ji, Zhang Zhang, Weibing Zhang, Hanfa Zou, Ti⁴⁺-immobilized multilayer polysaccharide coated magnetic nanoparticles for highly selective enrichment of phosphopeptides, *Journal of Materials Chemistry B*, 2014, 2(28), 4473–4480.

- Zhichao Xiong, Yongsheng Ji, Chunli Fang, **Quanqing Zhang**, Lingyi Zhang, Mingliang Ye, Weibing Zhang, Hanfa Zou, Facile preparation of core–shell magnetic metal–organic framework nanospheres for the selective enrichment of endogenous peptides, *Chemistry-A European Journal*, 2014, 20(24), 7389–7395.
- Zhichao Xiong, Yajing Chen, Lingyi Zhang, Jun Ren, **Quanqing Zhang**, Mingliang Ye, Weibing Zhang, Hanfa Zou, Facile synthesis of guanidyl-functionalized magnetic polymer microspheres for tunable and specific capture of global phosphopeptides or only multiphosphopeptides, *ACS applied materials & interfaces*, 2014, 6(24), 22743–22750.
- Hao Wan, Jinan Li, Wenguang Yu, Zheyi Liu, **Quanqing Zhang**, Weibing Zhang, Hanfa Zou, Fabrication of a novel magnetic yolk–shell Fe₃O₄@mTiO₂@mSiO₂ nanocomposite for selective enrichment of endogenous phosphopeptides from a complex sample, *RSC Advances*, 2014, 4(86), 45804–45808.
- Yiman Zhao, Yajing Chen, Zhichao Xiong, Xudong Sun, **Quanqing Zhang**, Yangyang Gan, Lingyi Zhang, Weibing Zhang, Synthesis of magnetic zwitterionic–hydrophilic material for the selective enrichment of N-linked glycopeptides, *Journal of Chromatography A*, 2017, 1482, 23–31.

Research experience

- The synthesis of mesoporous carbon/ hydrophilic materials based on graphene/magnetic beads, and their applications in selective enrichment of glycopeptides/glycans.
- The synthesis of mesoporous carbon materials based on graphene/magnetic beads, and their applications in selective enrichment of endogenous peptides.
- The synthesis of modified magnetic materials and their applications in chromatography stationary phase.
- Method development in high-performance liquid chromatography.
- Instrument development of ion-mobility mass spectrometry (MS), time-of-flight MS and triple-quadrupole MS.
- Construction of electrospray ionization source and fabrication of calibre-controllable nano-electrospray emitter.
- The PFAS functional probe synthesis and its application for the identification of PFAS-binding proteins.
- Photoaffinity labelling for the identification of reader proteins for N-terminal-methylated proteins.

Conference Presentations

- **Quanqing Zhang**, Yuanyu Huang, Pengyuan Yang, Facile preparation of magnetic mesoporous phenolic resin and its application in glycopeptide enrichment, 17th Asia-pacific international symposium on microscale separations and analysis, 2017.
- **Quanqing Zhang**, Yuanyu Huang, Bin Jia, Weijia Zhang, Pengyuan Yang, The facile fabrication of controllable internal diameter electrospray emitter and its effectiveness evaluation, 46th International Symposium on High Performance Liquid Phase Separations and Related Techniques (HPLC 2017 Jeju), 2017.
- **Quanqing Zhang**, Yuanyu Huang, Weijia Zhang, Pengyuan Yang, The facile fabrication of a caliber-controllable nano-electrospray emitter and its effectiveness evaluation on proteome analysis, 66th ASMS conference on mass spectrometry and allied topics, 2018.

Book

- Yukui Zhang, Handbook of Analytical chemistry, (volume 6), Chemical Industry Press, Beijing, 2017. (Participated in the preparation of chapter 2)

Patents

- **CN106057626A** **Quanqing Zhang**, Bin Jia, Pengyuan Yang, “Three-dimensional ion mobility mass spectrometry” (licensed)
- **201610387936Y** **Quanqing Zhang**, Bin Jia, Pengyuan Yang, “Portable gas chromatography mass spectrometry device” (licensed)
- **CN201020363Y** **Quanqing Zhang**, “An ejector structure for a burette or pipette” (licensed)
- **201610641192.3** **Quanqing Zhang**, Bin Jia, Yuanyu Huang, Pengyuan Yang, “Uniform gas feeding device of ion mobility drift tube” (licensed)
- **201611247926.6** **Quanqing Zhang**, Bin Jia, Yuanyu Huang, Hao Yang, “Ion transport focusing and screening device” (licensed)
- **201611246642.5** **Quanqing Zhang**, Haofan Sun, Yuanyu Huang, Shanyu Jia, Hao Yang, “A preparation method of caliber controllable nano-electrospray emitter” (licensed)
- **201611259831.6** **Quanqing Zhang**, Bin Jia, Kai Liu, Hao Yang, Yuanyu Huang, “A maldi-tof detection device and method for on-line enrichment of microfluidics”
- **201611259833.5** **Quanqing Zhang**, Bin Jia, Kai Liu, Hao Yang, Yuanyu Huang, “A maldi-tof detection device and method for multi-channel on-line enrichment of microfluidics”
- **201611245308.8** **Quanqing Zhang**, Bin Jia, Hao Yang, “Ion transmission and focusing device”
- **CN105330541A** Zhongyu Wang, **Quanqing Zhang**, “Synthetic of 4'-halogenated methyl biphenyl-2-alkyl formate” (licensed)
- **CN202870045U** Weibing Zhang, Ping Shao, Zhaosong Ge, Fan Liu, **Quanqing Zhang**, “A Three-Stage Two-Dimensional Liquid Chromatography System” (licensed)
- **CN102507520A** Lingyi Zhang, Fan Liu, **Quanqing Zhang**, “A fluorescent detection device for liquid-cored waveguide” (licensed)

Awards

- Scholarship certificate of Fudan University. (2017-2018)
- Best poster award of IUPAC international congress on analytical sciences, 2017.
- Best poster award of the third national mass spectrometry symposium, 2017.

Referee experience

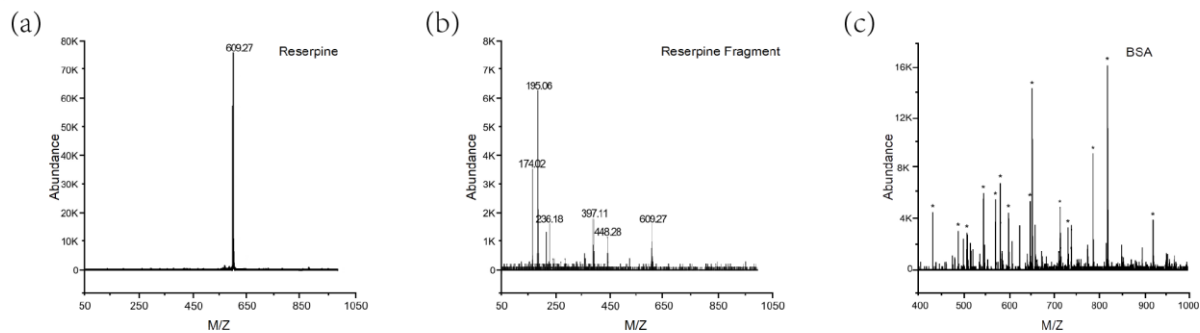
- Has been assigned as referee of the Journal “Environmental Pollution”, “Chemosphere”, “TALANTA”, “Journal of chromatography A”, “Analyst”, “Frontiers in Molecular Biosciences”, “Molecules” “Frontiers in Cell and Developmental Biology” et.al for many times.

Editorial board

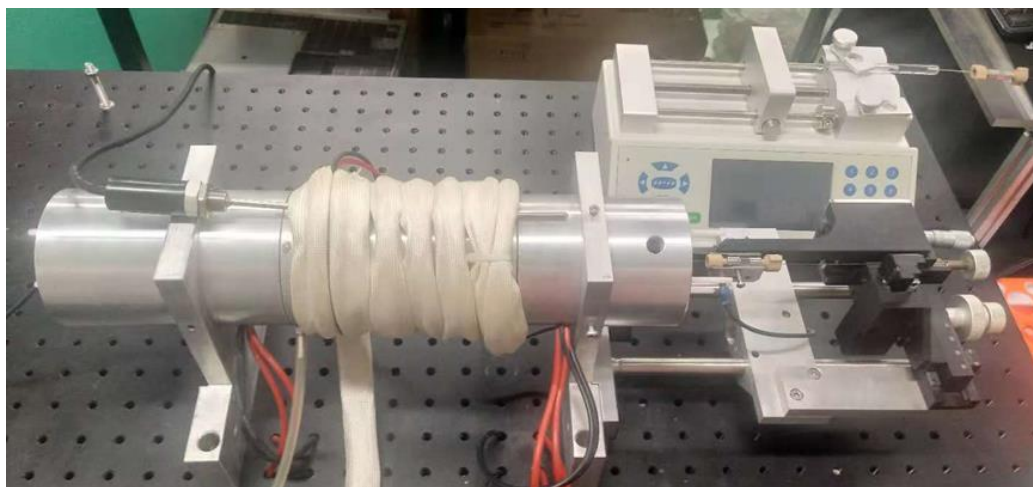
- Young Editor of journal “Journal of Pharmaceutical Analysis”
- Review editor of journal “Frontiers in Chemistry”

Partial homemade instruments/devices

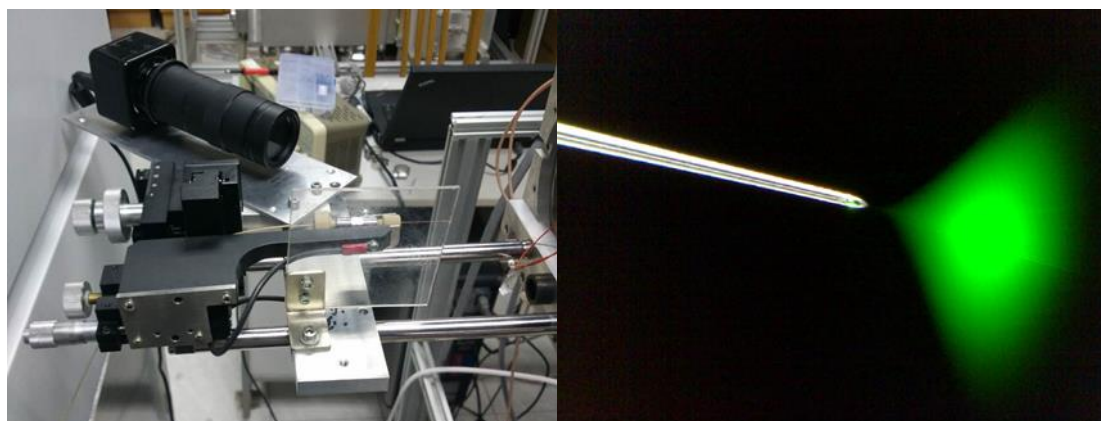




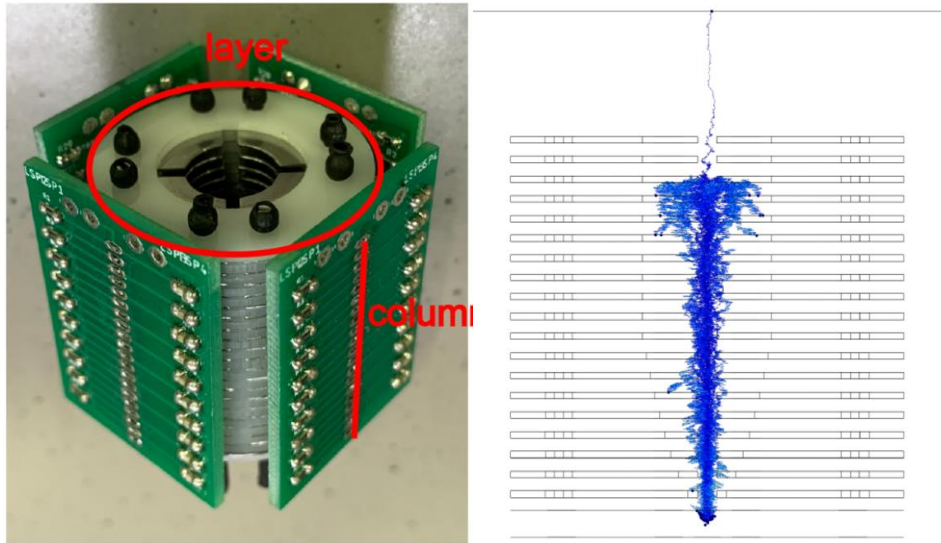
Participate in the home made nanoESI-QTOF MS



Homemade ESI-ion mobility drift tube



Homemade nano-ESI



Homemade MIR-Ddisc (ion funnel)