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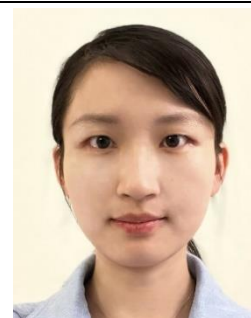
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出生年月: 1990.02

籍贯: 山东省菏泽市

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教育背景 (Education background)

2017/09 - 2021/10 理学博士 苏黎世联邦理工学院 (QS 世界大学排名 top8, 泰晤士世界大学排名 top15) 化学与应用生物学系

导师: Renato Zenobi 教授 (厦门大学外籍千人)

Ph.D. Department of Chemistry and Applied Biosciences, Swiss Federal Institute of Technology (ETHz), Switzerland

Supervisor: Prof. Dr. Renato Zenobi

2013/09 - 2016/06 理学硕士 南京大学 化学与化工学院 生命分析化学国家重点实验室

导师: 鞠焱先教授 (杰青, 长江学者), 丁霖教授 (优青)

M.S. School of Chemistry and Chemical Engineering, Nanjing University,

Supervisor: Prof. Dr. Huangxian Ju, Prof. Dr. Lin Ding

2008/09 - 2012/06 理学学士 山东农业大学 化学与材料科学学院

导师: 艾仕云教授 (院长)

B.S. School of Chemistry and Materials Science, Shandong Agricultural University.

Supervisor: Prof. Dr. Shiyun Ai

工作背景 (Working experiences)

合作导师: Renato Zenobi 教授 (苏黎世联邦理工学院, 厦门大学特聘教授), 苏众庆教授 (香港理工大学, 香港长江学者), Lei Zhou 教授 (香港理工大学, 新加坡眼科研究所)

2022/10 - 博士后 香港理工大学 机械工程系

Post Doc. Department of Mechanical Engineering, Hong Kong Polytechnic University

2021/10 - 2022/09 博士后 苏黎世联邦理工学院 化学与应用生物学系

Post Doc. Department of Chemistry and Applied Biosciences, ETHz, Switzerland

2016/09 - 2017/05 研究助理 蛋白质组学 新加坡眼科研究所

Research Associate, Proteomics, Singapore Eye Research Institute, Singapore

出版物 (Publications)

1. N. Wu, Y. Yang, C. Wang,* Q. Wu, F. Pan, R. et al. Ultrathin Cellulose Nanofiber Assisted Ambient-Pressure-Dried, Ultralight, Mechanically Robust, Multifunctional MXene Aerogels. *Adv. Mater.* 2023, 35, 2207969 (IF: 32.1).
2. N. Wu, A. M. Olechwieb, C. Brunnera, P. C. Zenobi,* P. Ma,* et al. High-mass MALDI-MS Unravels Ligand-mediated G Protein Coupling Selectivity to GPCRs. *Proc. Natl. Acad. Sci. U.S.A.* 2021, 118, e2024146118. (IF: 12.3)
3. B. Li, N. Wu,* Y. Yang, F. Pan, C. Wang, L. Xiao, W. Liu, J. Liu,* and Z. Zeng. Graphene Oxide-Assisted Multiple Crosslinking of MXene for Large-Area, High-Strength, Oxidation-Resistant and Multifunctional Films, *Adv. Funct. Mater.* 2022, doi.org/10.1002/adfm.202213357. (IF: 19.9)
4. B. Li, Y. Yang, N. Wu,* S. Zhao, H. Jin, et al. Bicontinuous, High-Strength, and Multifunctional Chemical-Cross-Linked MXene/Superaligned Carbon Nanotube Film. *ACS Nano* 2022, 16, 19293–19304. (IF: 18.0)
5. Y. F. Yang, N. Wu,* B. Li, W. Liu, et al. Biomimetic Porous MXene Sediment-Based Hydrogel for High-Performance and Multifunctional Electromagnetic Interference Shielding, *ACS Nano* 2022, 16, 15042–15052. (IF: 18.0)
6. N. Wu, L. Bao, L. Ding* and H. X. Ju,* A Single Excitation-Duplexed Imaging Strategy for Profiling Cell Surface Protein-Specific Glycoforms. *Angew. Chem. Int. Ed.* 2016, 55, 5220–5224. (IF: 16.8)
7. S. Y. Zhao*, N. Wu,* and Wim J. Malfait, Universal Strategy for Rapid 3D Printing of Aerogels. *Matter* 2022, 3, 2421–2423. (IF: 20.0)
8. N. Wu, Z. Zeng, N. Kummer, D. Han, R. Zenobi,* G. Nyström,* Ultrafine Cellulose Nanofiber-Assisted Physical and Chemical Cross-linking of MXene Sheets for Electromagnetic Interference Shielding. *Small Methods*, 2021, 2100889. (IF: 15.4)
9. Z. Zeng, N. Wu (共同一作), J. J. Wei, Y. F. Yang, S. Y. Zhao,* et al. Porous and Ultra-flexible Crosslinked MXene/Polyimide Composites for Multifunctional Electromagnetic Interference Shielding. *Nano-Micro Lett.* Doi: 10.1007/s40820-022-00800-0. (IF: 23.7)

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10. Z. Zeng, N. Wu,* G. Nyström,* Mimicking Biological Architectures via Freeze Casting. *Matter* 2022, 3, 2519–2522. (IF: 20.0)
 11. R. Zhang, N. Wu,* F. Pan, Y. f. Yang, B. Li, L. Wu, W. Liu, J. Liu,* Z. Zeng,* Scalable manufacturing of light, multifunctional cellulose nanofiber aerogel sphere with tunable microstructure for microwave absorption, *Carbon*, 2023, 203, 181–190. (IF: 10.20)
 12. R. Zhang, B. Li, Y. f. Yang, N. Wu,* Z. Sui, Q. Ban, L. Wu, W. Liu, J. Liu,* Z. Zeng,* Ultralight aerogel sphere composed of nanocellulose-derived carbon nanofiber and graphene for excellent electromagnetic wave absorption, *Nano Research* (accepted IF: 10.0)
 13. N. Wu, L. Jiao, M. Bütikofer, Z. Zeng, R. Zenobi,* High-mass MALDI Mass Spectrometry for Absolute Quantitation of Noncovalent Protein-protein Binding Interactions. *Anal. Chem.* 2021, 93, 10982–10989. (IF: 8.0)
 14. N. Wu, B. Li, and J. Liu, Z. Zeng,* Ultrafine Cellulose Nanocrystal-Reinforced MXene Biomimetic Composites for Multifunctional Electromagnetic Interference Shielding. *Sci. China Mater.* 2022, Doi: 10.1002/smt.202100889. (IF: 8.3)
 15. Z. Zeng, N. Wu (共同一作), W.D. Yang, Z.Q Su, X.H. Lu*, et al. Sustainable-Macromolecule-Assisted Preparation of Cross-linked, Ultralight, Flexible Graphene Aerogel Sensors toward Low-Frequency Strain/Pressure to High-Frequency Vibration Sensing. *Small* 2022, 18, 2202047. (IF: 15.2)
 16. Y. Yang, B. Li, N. Wu,* W. Liu, S. Zhao, et al. Biomimetic Porous MXene-Based Hydrogel for High-Performance and Multifunctional Electromagnetic Interference Shielding. *ACS Mater. Lett.* 2022. Doi: 10.1021/acsmaterialslett.2c00778 (IF: 11.2)
 17. Y. Liu, N. Wu,* S. Zheng, Y.F. Yang, B. Li, et al. From MXene Trash to Ultra-flexible Composites for Multifunctional Electromagnetic Interference Shielding, *ACS Appl. Mater. Interfaces*, 2022. doi.org/10.1021/acami.2c13849 (IF: 10.4)
 18. Y. F. Yang, M. R. Han, W. Liu, N. Wu,* et al. Hydrogel-based Composites Beyond the Porous Architectures for Electromagnetic Interference Shielding. *Nano Research* 2022, 15, 9614–9630. (IF: 10.0)
 19. M. Han, R. Zhang, Q. Wu, N. Wu,* et al, Biopolymer-based Aerogels for Electromagnetic Wave Shielding and Absorbing. *Chin. J. Chem.* 2023, 41, 322-334. (IF: 5.6)
 20. J. Sedzicki, D. Ni, F. Lehmann, N. Wu, R. Zenobi, S. Jung, H. Stahlberg. Mechanism of Cyclic- β -glucan Export by ABC Transporter Cgt of Brucella. *Nat. Struct. Mol. Biol.* 2022. (IF: 18.4 in press)
 21. V. J. Fleglera, A. Rasmussena, S. Rao, N. Wu, R. Zenobi, M. S. P. Sansomd, R. Hedrichc, Tim Rasmussena, and B. Böttcher,* The MscS-like Channel YnaI Has a Gating Mechanism Based on Flexible Pore Helices. *Proc. Natl. Acad. Sci. U.S.A.* 2020, 17, 28754–28762.

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22. Z. Zeng, W. Li, **N. Wu**, S. Zhao, X. Lu, Polymer-assisted Fabrication of Silver Nanowire Cellular Monoliths: Toward Hydrophobic and Ultraflexible High-performance Electromagnetic Interference Shielding Materials. *ACS Appl. Mater. Interfaces* 2020, 12, 38584–38592. (IF: 10.4)
 23. Y. Mei, J. J. Gamboa-Carballo, Y. Bao, **N. Wu**, G. L. Corre, H. Grützmacher. Coordination-Induced Polymerization of P=C Bonds Leads to Regular (P-C)_n Polycarbophosphanes. *Sci. Adv.* 2021, 7, eabf4272. (IF: 14.1).
 24. M. Sandmeier, N. Paunovic, R. Conti, L. Hofmann, J. Wang, Z. Luo, K. Masania, **N. Wu**, N. Kleger, F. B. Coulter, A. Studart, H. Grützmacher, J. C. Leroux, Y. Bao, Solvent-Free 3D Printing of Biodegradable Elastomers using Liquid Macrophotoinitiators. *Macromolecules* 2021, 54, 7830–7839. (IF: 6.0)
 25. L.J. Chen, **N. Wu**, B Sun, H.C. Su, S.Y. Ai.* Colorimetric Detection of Peroxynitrite-induced DNA Damage Using Gold Nanoparticles, and on the Scavenging Effects of Antioxidants. *Microchim. Acta* 2013, 180, 573–580. (IF: 5.8)
 26. H.C. Su, H. Fan, S.Y. Ai,* **N. Wu**, H. Fan. Selective Determination of Melamine in Milk Samples Using 3-mercapto-1-propanesulfonate-modified Gold Nanoparticles as Colorimetric Probe. *Talanta* 2011, 85, 1338-1343. (IF: 6.0)

申请专利 (Patents):

1. P. Ma (35 %), **N. Wu** (25 %), R. Zenobi (25 %), et. al. Method for quantitative MS-based screening of ligand-induced membrane protein and GPCR interactions with native and engineered binding partners. (File No. EP21178058) PCT/EP2022/064769
2. 吴娜, 一种常压制备的生物基泡沫材料及其制备方法和应用 中国专利申请号: 202010293950.3
3. 吴娜, 一种常压制备的碳纳米管基薄膜材料及其制备方法和应用 中国专利申请号: 202110586095.X
4. 曾志辉, 吴娜, 一种物理化学双重交联的 MXene 复合薄膜及其制备方法和应用, 2021-09-28, 中国, 202111143208.5

研究方向/经历

- ✓ 多重技术联用构建原生环境下研究复杂生物分子行为新平台。

利用糖代谢标记、化学正交反应及上转化纳米粒子双通道发光特性, 构建能够对细胞表面特定糖蛋白上单糖的多通道成像定量检测平台, 为细胞表面特定糖蛋白上单糖表达水平与疾病关系的研究提供新思路。同时, 利用快速化学交联及高分子量质谱检测技术研究

药物小分子诱导的多组分蛋白质间的选择性/竞争性偶联、药物药性分析及其高通量筛选，以及蛋白质“构象-活性”关系的新策略，为原生环境下多维度研究生物分子行为提供新方法。这些工作以第一作者发表论文于*Proc. Natl. Acad. Sci. U.S.A.* 2021, e2024146118; *Anal. Chem.* 2021, 93, 10982; *Angew. Chem. Int. Ed.* 2016, 55, 5220等。

✓ 用于提高仪器检测部件信噪比的电磁兼容纳米复合材料制备及机理研究。

为提高精密仪器中检测器（如光电倍增管、微通道板、离子转换打拿极检测器等）的信噪比，申请人发展物理或化学交联方法实现对导电纳米材料与高分子高效复合，研制系列轻质、柔性纳米复合材料以期用于实现对电磁波干扰的有效屏蔽/吸收，并从构筑单元性能及微结构的角度研究了电磁能量转化机制，揭示电磁屏蔽/吸收机理。这些工作以第一及通讯作者发表论文于*Adv. Mater.* 2023, 35, 2207969; *ACS Nano* 2022, 16, 19293; *Adv. Funct. Mater.* 2022, 2213357; *Matter* 2022, 3, 2519 等。

✓ 压阻型柔性可穿戴智能多功能传感器的构建及机理研究。

研制具有特定仿生微结构的柔性纳米材料宏观组装体，构建出信号灵敏、稳定、集健康检测与信号传输于一体的新型可穿戴生物传感器。这些工作以第一及通讯作者发表论文于*ACS Nano* 2022, 16, 15042; *Nano-Micro Lett.* 2022, 14, 59, *Small* 2022, 18, 2202047等。

会议 (Participation in/submission of papers to academic conferences)

1. 27th International Mass Spectrometry Conference, Aug., 2022, Maastricht, Netherland. **Oral presentation.**
2. Inserm Workshop 262: Mass Spectrometry for Structural Biology, Jan., 2022, Bordeaux, France. **Oral presentation.**
3. 68th American Society for Mass Spectrometry (ASMS) Conference on Mass Spectrometry and Allied Topics, Houston, USA, June, 2020. **Poster Presentation.**
4. 35th Swiss Group for Mass Spectrometry conference, Beatenberg, Switzerland, Oct., 2018. **Poster Presentation.**
5. Fall Meeting of the Swiss Chemical Society, Lausanne, Switzerland. Sep., 2018. **Oral presentation.**
6. 7th Symposium on Structural Proteomics, Vienna, Austria, Oct., 2017. **Poster presentation.**
7. 9th National Conference on Chemical Biology. Tianjin (China). Aug., 2015. **Poster presentation**
8. 3rd Annual Conference of the National Conference on Nano biology and Medicine. Chengdu (China). Nov., 2014. **Poster presentation.**

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9. 6th International Symposium on Bioanalysis, Biomedical Engineering and Nanotechnology. Changsha (China). Jun., 2014. **Poster presentation.**
 10. 3rd National College Students Innovation Forum. Dalian (China). Oct., 2010. **Oral presentation.**

获奖情况 (Honors and Awards)

1. 第三届全国大学生创新论坛“国家大学生优秀论文” (共 10 人), 2010 年, 大连
2. 山东省研究生优秀科技创新成果奖 (参与), 2012 年
3. 2008-2012: 学校优秀奖学金, 校级“计算机技能大赛”二等奖, 科技创新单项奖 (两次), “笔墨丹青书画展”三等奖, 校级优秀寒假调查报告, “实验技能大赛”三等奖, “大学生创业挑战杯大赛”团队优秀奖, 校级“百优”大学生, 优秀学士学位论文。