张 鉴　教 授，博 导

浙江温州 茶山高教园 温州大学南校区 1 号楼 A402

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个人简介

男，浙江慈溪人，无党派人士。获合肥工业大学学士和硕士学位（2000, 2003）、东南大学博士学位（2006）。国家卫星气象中心联培研究生（2001-2002）、The University of Tennessee, Knoxville, USA 国家公派访问学者（2016-2017）、传感器技术全国重点实验室客座研究员（2023-2024）。曾就职于合肥工业大学（国家示范性微电子学院, 2006-2021），现任温州大学教授（2021），组建 Microfluidics, Mirosensors & Microsystems 实验室（2021）。获聘温州大学瓯江学者（2021），入选温州市瓯越英才计划（2024）。

学术兼职

- 中国微米纳米技术学会高级会员、中国微米纳米技术学会 BioMEMS 技术分会理事, *IEEE* Member
- (1) 多类国家级人才会评/函评专家 (2) 省级重大人才工程会评专家 (3) 国家自然科学基金通讯评审人 (4) 国家留学基金委专家 (5) 教育部科技评价与评审专家 (6) 教育部学位中心专家 (7) 国家电网有限公司项目评审专家 (8) 安徽省医疗器械审评专家
- *Frontiers in Bioengineering and Biotechnology* (in *Biosensors and Biomolecular Electronics*) 副主编、多个专题主编, *Frontiers in Sensors* 等期刊编委
- *The International Workshop on Materials Science and Engineering* (*WMSE*, *IEEE RSETE 2011*)、*International Conference on Recent Advances in the Physics* (*ICRAP 2013*) 等多个国际会议程序委员会委员
- *ELSEVIER*、*IEEE*、*Springer*、*瑞士 Frontiers* 等出版社及 *传感技术学报*、*东南大学学报*、*合肥工业大学学报* 等数十本学术期刊审稿人

研究领域

- MEMS / BioMEMS / Lab on a Chip
- 微流控器件 / 生物传感器 / 生物电子学
- 嵌入式系统 / POCT 系统 / 可穿戴传感系统

科研成果

- 发表学术论文 100 余篇，以一作或通讯身份发表于 ***Science*** (*eletters*)、***ACS Nano***、***Adv. Funct. Mater.***、***Biosens. Bioelectron.***、***Anal. Chem.***、***IEEE Trans. Inf. Foren. Sec.***、***NPJ Sci. Food***、***Food Chem.***、***Sensor. Actuat. B-Chem.*** 等期刊，含多篇封面论文、主编评论和 ESI 高被引论文。授权发明专利多项。
- 部分研究工作入选 15 本英文专著（章节），得到国内外院士、知名国际期刊主编等同行科学家的广泛引用与正面评价。
- 用于粮油危害物实时检测的传感器在中央储备粮直属库示范应用。
- 便携式生物传感技术获 *2024 Innobay* 国际创新创业大赛总决赛（半导体组）优秀奖。
- 多次在 *IEEE* 等国际会议作口头报告。近年来，为“*World Biological Science and Technology Conference* (*BioST 2022, Osaka, Japan*)”、“*The Annual International Conference on Manipulation, Manufacturing and Measurement on the Nanoscale* (*IEEE 3M-NANO 2022, Tianjin, China*)”等作分会场邀请报告。
- 多次在国内行业会议作邀请报告。近年来，为“*中国微米纳米技术学会青年科学家论坛* (*2021*、*2023*)”、“*中国微米纳米技术学会 BioMEMS 技术分会年会* (*2025*)”作特邀报告，应邀为中国微米纳米技术学会“*第五届微米纳米技术应用创新大会* (*2021*)”、“*微纳器件与系统创新论坛* (*2023*)”、“*微流控技术应用创新论坛* (*2020*、*2022*、*2023*、*2024*)”、“*微纳传感技术与检测创新论坛* (*2025*)”等会议作分会场报告。

科研项目

主持国家自然科学基金面上项目、国家重点研发计划子课题、全国重点实验室基金、省高校自然科学重点项目、省自然基金面上项目等课题十余项。

- 数字医学工程全国重点实验室基金, 2024-M04, 2024-2025（主持）
- 传感器技术全国重点实验室基金, SKT2206, 2023-2024（主持）
- 国家自然科学基金面上项目, 62074047, 2021-2024（主持）
- 国家重点研发计划子课题, 2019YFC1605302, 2019-2022（主持）
- 安徽省自然科学基金面上项目, 1908085MF180, 2019-2022（主持）

部分论文

1. Zhang X., Wang C.*, Jiang G., ..., **Zhang J.***, et al., ***ACS Nano*** **2025**, 19, 40279-40288.

(*Nature Index Journal*，中科院一区, IF=16.1)

2. **Zhang J.***, Qi H., Wu J.*, et al., ***Analytical Chemistry*** **2024**, 96, 9817-9825.

(**封面论文**, *Nature Index Journal*，中科院一区, IF=6.7)

3. Qi H., Xiao L., Wu J.*, ..., **Zhang J.***, et al., ***Food Chemistry*** **2023**, 416, 135823.

(中科院一区, IF=9.8)

4. Cao W., Lin R., Hou X., ..., **Zhang J.***, et al., ***Advanced Functional Materials*** **2023**, 2301027.

(**ESI 高被引论文**, *Nature Index Journal*, 中科院一区, IF=19.0)

5. Huang C., Yang Z.*, Hu Z., ..., **Zhang J.***, et al., ***IEEE Transactions on Information Forensics & Security*** **2023**, 18, 4747-4759. (**CCF-A**, CACR-A, 中科院一区, IF=8.0)

6. Qi H.#, Hu Z.#, Yang Z., **Zhang J.***, et al., ***Analytical Chemistry*** **2022**, 94, 2812-2819.

(**封面论文**, **ESI 高被引论文**, *Nature Index Journal*, 中科院一区, IF=6.7)

7. **Zhang J.**, Fang X., Mao Y., et al., ***NPJ Science of Food*** **2021**, 5, 12.

(*Nature Partner Journal*, 中科院一区, IF=7.8)

8. **Zhang J.**, Jiang Y., Xia X., et al., ***Biosensors and Bioelectronics*** **2020**, 165, 112366.

(中科院一区, IF=10.5)

9. **Zhang J.**, Fang X., Wu. J.*, et al., ***Biosensors and Bioelectronics*** **2020**, 150, 111879.

(中科院一区, IF=10.5)

10.Hu Z.#, **Zhang J.#**, Huang Y.*, et al., ***Science*** (eletter online) **2019**,

https://www.science.org/doi/10.1126/science.365.6452.426 (中科院一区, IF=45.8)

11.**Zhang J.**, Oueslati R., Cheng C., et al., ***Biosensors and Bioelectronics*** **2018**, 112, 48-53.

(中科院一区, IF=10.5)

上述期刊均同时入选 2025 版和 2023 版中科院一区

人才培养

- 已指导研究生毕业 29 人 (其中合肥工业大学 25 人)。
- 指导多名研究生获国家奖学金。获中国研究生电子设计竞赛全国总决赛优秀指导教师 (2024, 2025)。获中国研究生电子设计竞赛全国总决赛一等奖 (2024, 第一指导教师; 2025, 第二指导教师), 并被 “学习强国”、“中国教育在线” 等媒体报道。获中国研究生电子设计竞赛华东赛区一等奖 (2024, 第一指导教师; 2025, 第二指导教师)。获第十九届 “挑战杯” 大学生课外学术科技作品竞赛浙江省铜奖 (2025, 第一指导教师)。
- 已毕业的研究生就职于联发科、中兴、华为、长鑫存储等知名半导体公司; 高校、政府、电信/移动/银行系统; 成为国家工作人员; 及攻读博士学位。
- 获优秀指导教师 (优秀本科毕业论文) 十余篇次。所指导的多名本科毕业生赴美国、加拿大、爱尔兰、新加坡等国外知名大学及北京大学、东南大学、清华大学、浙江大学等国内高校攻读电子信息类硕博学位。
- 指导本科生获国家级/省级大学生创新创业项目、浙江省新苗计划等十余项资助。指导本科生发表 SCI 论文多篇、授权/受理发明专利多项。多名参与课题的本科生保研至北京大学、东南大学、中国科技大学、南京大学等高校微电子/计算机专业或出国深造, 并就职于高通、微软中国、英伟达等领袖企业。

3M Lab
微流控·微传感器与微系统实验室

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Education

- PhD in Microelectronics & Solid-State Electronics, Southeast University, Nanjing, China, 2006
- MSE in Applied Physics, Hefei University of Technology, Hefei, China, 2003
- BEng from Hefei University of Technology, Hefei, China, 2000

Employment

- 2023.01 – 2024.12, Visiting professor, State Key Laboratory of Transducer Technology, China
- 2021.11 – present, Professor, Wenzhou University, China
- 2016.11 – 2017.12, Visiting professor, the University of Tennessee, USA
- 2008.12 – 2021.11, Associate professor, Hefei University of Technology, China
- 2006.12– 2008.12, Assistant professor, Hefei University of Technology, China

Profile

Dr. Jian Zhang has been engaged in microelectromechanical systems (MEMS), biosensors and microfluidics for over 20 years. He is an IEEE member and a senior member of Chinese Society of Micro and Nano Technology (CSMNT), and serves as the committee of BioMEMS Technical Branch of CSMNT. He is an associate editor and works as several guest editors in "Frontiers in Bioengineering and Biotechnology." He is the founder and director of *Microfluidics, Microsensors & Microsystems Laboratory* in Wenzhou University. He has published more than 100 papers, including cover papers, highly cited papers and editorials. He guided his graduate students to win the first prize of *Chinese Electronic Design Competition* (2024, 2025).

Funding

- Open Research Fund of State Key Laboratory (2024-M04), 2024-2025
- Open Research Fund of State Key Laboratory (SKT2206), 2023-2024
- National Natural Science Foundation of China (62074047), 2021-2024
- National Key R&D Program of China (2019YFC1605302), 2019-2022
- National Natural Science Foundation of China (61874156), 2019-2022
- Anhui Provincial Natural Science Foundation of China (1908085MF180), 2019-2022

Selected Publications

(1) Zhang X., Wang C.*, Jiang G., ..., **Zhang J.***, et al., *ACS Nano* **2025**, 19, 40279-40288.

(2) Huang J., Chen J., Lv L., ..., **Zhang J.***, et al., *IEEE Transactions on Instrumentation and Measurement* **2025**, 74, 2007411. (Highly cited paper)

(3) **Zhang J.***, Wu J.J.*, Yang X., *Frontiers in Bioengineering and Biotechnology* **2025**, 13, 1535365.(Editorial)

(4) **Zhang J.**, Wang T., Mao X., et al., ***Clinical Chemistry and Laboratory Medicine*** **2025**, 63, 2115-2169.
(5) **Zhang J.***, Qi H., Wu J.*, et al., ***Analytical Chemistry*** **2024**, 96, 9817-9825. (Front cover)
(6) Qi H., **Zhang J.***, Zhang X., et al., ***Food Research International*** **2024**, 197, 115114.
(7) Huang C., Yang Z.*, Hu Z., ..., **Zhang J.***, et al., ***IEEE Transactions on Information Forensics and Security*** **2023**, 18, 4747-4759.
(8) Cao W., Lin R., Hou X., ..., **Zhang J.***, et al., ***Advanced Functional Materials*** **2023**, 2301027. (Highly cited paper)
(9) Qi H., Xiao L., Wu J.*, ..., **Zhang J.***, et al., ***Food Chemistry*** **2023**, 416, 135823.
(10) Xu J., Zhang M., Cao F., ..., **Zhang J.***, et al., ***Journal of Power Sources*** **2023**, 573, 233132.
(11) Qi H.[#], Hu Z.[#], Yang Z., **Zhang J.***, et al., ***Analytical Chemistry*** **2022**, 94, 2812-2819. (Cover, Highly cited paper)
(12) **Zhang J.***, Wu J.J.*, Chen L., ***Frontiers in Bioengineering and Biotechnology*** **2022**, 10, 957878. (Editorial)
(13) **Zhang J.**, Zhang Y., Wu J.*, et al., ***Sensors and Actuators-B: Chemical*** **2021**, 329, 129282.
(14) **Zhang J.**, Fang X., Mao Y., et al., ***NPJ Science of Food*** **2021**, 5, 12. (Nature partner journal)
(15) Qi H., Huang X., Wu J.*, **Zhang J.***, et al., ***Anal. Chem. Acta*** **2021**, 1183, 338991.
(16) **Zhang J.**, Jiang Y., Xia X., et al., ***Biosensors and Bioelectronics*** **2020**, 165, 112366.
(17) **Zhang J.**, Fang X., Wu. J.*, et al., ***Biosensors and Bioelectronics*** **2020**, 150, 111879.
(18) Hu Z.[#], **Zhang J.[#]**, Huang Y.*, et al., ***Science*** (eletter) **2019**, https://www.science.org/doi/10.1126/science.365.6452.426
(19) Hu Z., **Zhang J.**, Huang Y.*, et al., ***Science*** (eletter) **2019**, https://www.science.org/doi/10.1126/science.291.5501.39b
(20) **Zhang J.**, Oueslati R., Cheng C., et al., ***Biosensors and Bioelectronics*** **2018**, 112, 48-53.

Being Cited in Books

(1) Arpana Parihar, et al., ***Aptasensors for Point-of-Care Diagnostics***, *Chapter 8: Microfluidics-enabled aptamer-based sensing devices–the aptafluidics microdevices*. (2) Marinella Farré, et al., ***Chemical Analysis of Food*** (Second Edition), *Chapter 6: Microfluidic devices: biosensors*. (3) Phuong M. Nguyen, et al., ***An Overview of Drug-Related Problems in Pediatrics***. (4) Yeshvandra Verma, et al., ***Aptasensors for Food Safety***, *Chapter: Food safety, Innovative analytical tools for safety assessment*. (5) Ping Sun, et al., ***Utilizing Microfluidics in the Food Industry***, *Chapter 15: Food safety evaluation: chemical*. (6) Canan Özyurt, et al., ***Recent Trends and Perspectives on Electrochemical Sensors for Environmental Monitoring***, *Chapter 10: The use of aptamers for environmental biosensors*. (7) Vivek Kumar, et al., ***Applications of Analytical Methods Coupled With Artificial Intelligence***, *Chapter 1: Importance of food quality analysis in relation to food safety and human health and COVID-19 in particular*. (8) Kobra Omidfar, et al., ***Electrochemical Aptamer-Based Biosensors for Disease Biomarkers***, *Chapter 12: Biosensor fusion: integrating aptamer-based platforms with other sensing technologies*. (9) Heba Elbasiouny, et al., ***Nanorobotics and Nanodiagnostics in Integrative Biology and Biomedicine***, *Chapter 17: DNA-nanosensors for environmental monitoring of heavy metal ions*. (10) Nivedita Priyadarshni, et al., ***Miniaturized Biosensing Devices***, *Chapter 12: Gold nanoparticle-based colorimetric sensing of metal toxins*. (11) Kumari Priyanka, et al., ***Applications of Biosensors in Healthcare***, *Chapter 8: Biosensors for protein and peptide delivery*. (12) Vahid Reza Askari, et al., ***Applications of Biosensors in Healthcare***, *Chapter 27: Biosensors used for detection of toxic and heavy metals in biological samples*. (13) Abhinay Thakur, et al., ***Nanomaterial-Modified Electrodes***, *Chapter 10: Gold and silver nanoparticles-based electrodes for sensing biomolecules and pharmaceutical compounds*. (14) Sayfa Bano, et al., ***Applications of Advanced Green Materials***, *Chapter 19: Advanced application of green materials in environmental remediation*. (15) Li-Ping Mei, et al., ***Nanosensor Technologies for Environmental Monitoring***, *Chapter 1: Recent advances in electrochemical sensor and biosensors for environmental contaminants*.