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## ASSOCIATE PROFESSOR

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- ✧ **Research interest:** Flexible Electronics, Microfluidics, Surface and Interface



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### • Education

- 2011.08 - 2015.01**      **Ph.D. in Nano Science and Technology**  
*The Hong Kong University of Science and Technology (HKUST, Hong Kong)*
- 2008.08 - 2011.06**      **M.Sc. in Condensed Matter Physics**  
*Sun Yat-Sen University (SYSU, Guangzhou, China)*
- 2004.08 - 2008.06**      **Bachelor in Micro-electronics**  
*Sun Yat-Sen University (SYSU, Guangzhou, China)*

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### • Experience

- 2023.08 - Present**      **Adjunct Associate Professor**  
*Advanced Materials Thrust of the Function Hub of HKUST (GZ)*
- 2022.08 - Present**      **Associate Professor**, University of Macau
- 2020.07 - Present**      **Associate Head** of Department of Physics and Chemistry (DPC),  
*Faculty of Science and Technology, University of Macau*
- 2021.06 - 2023.07**      **Adjunct Assistant Professor**  
*Advanced Materials Thrust of the Function Hub of HKUST (GZ)*
- 2018.08 - Present**      **Secretary-general** of The Physical Society of Macau (PSM)
- 2016.01 - 2022.07**      **Assistant Professor**, University of Macau
- 2015.02 - 2015.12**      **Visiting Scholar** (Postdoctoral Fellow), Department of Physics, HKUST

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### • Honors/Awards

- 2024/2025**      **Institute Academic Award - Excellence in Service**  
*- Institute of Applied Physics and Materials Engineering, UMAC*
- 2021/2022**      **Institute Academic Award - Excellence in Service**  
*- Institute of Applied Physics and Materials Engineering, UMAC*
- 2009/2010**      **Research Diamond Award**  
*- State Key Laboratory of Optoelectronics Materials and Technologies, SYSU*

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### • Journal reviewer

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## • **Conference committee**

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- **YGA 2024** (Joint Annual Conference of Physical Societies in Guangdong-Hong Kong-Macao Greater Bay Area), 30 July-1 August 2024, Macao, China.
- **AMF-AMEC2023** (13th Asian Meeting on Ferroelectrics jointly with the 13th Asian Meeting on Electroceramics), 12-16 November 2023, Macao, China.
- **ICNNN2025/2024/2023/2022/2020** (The International Conference on Nanostructures, Nanomaterials and Nanoengineering), Japan.
- **CSWNST14** (The 14th Cross-Strait Workshop on "Nano Science and Technology"), 21-24 June 2018, Macao, China.

## • **Publications**

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**Full publication list** (<https://scholar.google.com/citations?user=heQCmJsAAAAJ&hl=en&oi=ao>)

1. Wenxue Dai, Fangcheng Wang, Ping He, Huijuan Liu, Chenghao Ma, Qiang Liu, Mingqi Huang, Guoping Zhang,\* Bingpu Zhou,\* and Rong Sun, Direct preparation of laser-induced doped graphite films on glass surfaces under domain-limited effect for photonic debonding, *Journal of Materials Processing Technology* 2026, 349, 119214.
2. Huiqi Zhang, Yu Xu, Miao Miao, Mingwei Han, Li Zhang, Xianzhe Liu,\* Hongan Cai, Weijiang Liang, Jingxiang Yang, Guoning Chen, Jinxiu Wen, Aiping Huang,\* Bingpu Zhou,\* and Jianyi Luo,\* High-k Elastic Composite Dielectrics and Microstructural Engineering: High-Sensitivity, Ultra-Wide Linear Range, and Robust Flexible Capacitive Pressure Sensors for Wearable Electronics, *Journal of Materials Chemistry A* 2026, 14, 1331-1342.
3. Zhiming Chen, Longxin Qian, Weihao Liang, Kaibang Zhang, Zichen Liu, Fengming Hu, Chaobin Liu, Kelan Lu, Jingcheng Huang, Haiquan Li, Jinxiu Wen, Bingpu Zhou, and Jianyi Luo, A Novel Tactile Tomography System Based on Mechanical Principles for Internal 3D Imaging, *Measurement* 2026, 264, 120300.
4. Qian Zhou, Yongchao Li, Yiwei Wang, Hui Zhou, Pei He, Bing Ji, Bingpu Zhou, and Junliang Yang, Programmable magnetized pillars enabled self-powered, single-channel and identity identifiable handwritten e-skin, *Applied Physics Reviews* 2026, 13, 011402.
5. Min Huang, Dilong Lin, Xinqing Chen, Xiaoming Zhong, Zhiming Chen, Fengming Hu, Jianye Li, Junfu Gan, Yihua Chen, Weigang Zhu, Pipi Lu, Jinxiu Wen, Pengfei Li, Xin He, Bingpu Zhou, and Jianyi Luo, An Epidermal-codeformed Adhesive Film for Flexible PCB-based Sensors towards Full-body Motion Capture System, *Science China Technological Sciences* 2026, 69, 1121001.
6. Jiayi Xu,<sup>#</sup> Ming Lei,<sup>#,\*</sup> Yuanzhe Liang, Biao Qi, Ziyi Dai, Yong Zhao,\* and Bingpu Zhou,\* Gourd-Inspired Design of Unit Cell with Multiple Gradients for Physiological-Range Pressure Sensing, *Advanced Functional Materials* 2025, e27243.
7. Yue Quan, Yuxin Wang, Sen Ding, Bingpu Zhou, and Yinning Zhou, An Intelligent Magneto-Mechanical Platform for Cellular Sensing in 3D Microenvironments, *Advanced Science* 2025, e19132.
8. Sen Ding,<sup>†</sup> Ziyi Dai,<sup>†</sup> Dazhe Zhao, Xiao Guan, Yue Quan, Mingrui Wang, Yinning Zhou, Junwen Zhong, and Bingpu Zhou,\* Self-elevated 3D Helical Oscillator with Addressable Eigenfrequency for Wearable Interface, *Advanced Materials* 2025, e16218.
9. Ming Lei, and Bingpu Zhou, Cactus-inspired dual-sided micro-cilia arrays with swelling-induced CNT

- networks for high-performance wearable pressure sensing, *Nanoscale* 2025, 17, 24726.
10. Xiao Guan, Tianjun Lan, Chengyue Lu, Dazhe Zhao, Yu Zhao, Yexi Zhou, Yucong Pi, Kaijun Zhang, Jiaze Shan, Sen Ding, Bingpu Zhou, and Junwen Zhong, Textile-Based Vibro-Haptic Interface with Soft Magnetic Fiber Weaving and Spiral Coil Embroidery, *Device* 2025, 100941.
  11. Ming Lei, Biao Qi, Yuanzhe Liang, Ruolin Liu, Ziyi Dai, Bing Ji,\* and Bingpu Zhou,\* Double-Domed Dielectric Foam with Engineered Modulus Gradient for Wide-range Linear Capacitive Pressure Transduction, *Advanced Materials Technologies* 2025, e01289.
  12. Xiao Guan, Tianjun Lan, Dazhe Zhao, Zhe Liu, Kaijun Zhang, Yexi Zhou, Yu Zhao, Yucong Pi, Chengyue Lu, Hanran Yu, Rongyao Pan, Haipeng Xia, Bingpu Zhou, and Junwen Zhong, Robust Textile-Based Electromagnetic Audio Interfaces, *Advanced Materials* 2025, e08022.
  13. Bing Ji, Jingyi Yue, Qian Zhou, Yao Fang, Bing Zheng, Jifei Wang, Yaxin Zhai, Bingpu Zhou, Dongsheng Tang, Localized Gradient Conductivity Enabled Ultrasensitive Flexible Tactile Sensors with Ultrawide Linearity Range, *Advanced Materials* 2025, e11275.
  14. Biao Qi, Yuanzhe Liang, Sen Ding, Dan Fang, Ming Lei, Qian Zhou,\* Chao Peng, and Bingpu Zhou,\* Maximizing Signal Capacity via Intrinsic Damped Vibration of Anisotropic Magnetized Micropillars for Wearable Human-Machine Interface, *Chemical Engineering Journal* 2025, 521, 167133.
  15. Yuanzhe Liang, Biao Qi, Ming Lei, Yingyi Zhang, Yifan Liu, Yinning Zhou, Jianyi Luo, and Bingpu Zhou,\* Bionic Perception of Surface Adhesion via Magnetized Spring-like Sensor with Axial Stretchability, *ACS Nano* 2025, 19, 25, 23465-23478.
  16. Dan Fang, Sen Ding, Yuhan Liu, Qian Zhou, Biao Qi, Bing Ji, and Bingpu Zhou,\* Revisiting the “Stick-slip” Process via Magnetism-coupled Flexible Sensors with Bio-inspired Ridge Architecture, *Advanced Materials* 2025, 37, 2417867.
  17. Runxing Lin, Ziyu Huang, Yu Liu, Bingpu Zhou,\* and Yinning Zhou,\* Flexible Wireless Magnetic Closure Sensor: A Biocompatible Device for Real-Time Biomedical Applications, *Sensors and Actuators Reports* 2025, 9, 100345.
  18. Dazhe Zhao, Jiaze Shan, Sen Ding, Dan Fang, Siyuan Liu, Kaijun Zhang, Zhaoyang Li, Tianjun Lan, Xin Wang, Bingpu Zhou, and Junwen Zhong, Spatiotemporal rendering for dynamic sensation reproduction via electrostatic-enhanced vibro-haptic interface, *The Innovation* 2025, 6(12): 101035.
  19. Yue Quan,# Sen Ding,# Yuxin Wang, Xiuping Chen, Bingpu Zhou,\* and Yinning Zhou,\* Real-Time Cardiomyocyte Contraction Sensing via a Neo-Flexible Magnetic Sensor, *Biosensors and Bioelectronics* 2025, 277, 117294.
  20. Ruolin Liu, Bing Ji,\* Ming Lei, Fengming Hu, Jianyi Luo and Bingpu Zhou,\* Triple-gradient based dielectric layer for flexible capacitive sensor with broad sensing linearity and high sensitivity, *Applied Materials Today* 2025, 42, 102614.
  21. Fengming Hu, Qian Zhou, Ruolin Liu, Yanfei Zhu, Yuanzhe Liang, Dan Fang, Bing Ji, Zhiming Chen,\* Jianyi Luo,\* and Bingpu Zhou,\* Top-down Architecture of Magnetized Micro-cilia and Conductive Micro-domes as Full Bionic Electronic Skin for De-coupled Multidimensional Tactile Perception, *Materials Horizons* 2025, 12, 418-433.
  22. Wenxi Gu, Shuqi Yang, Dazhe Zhao, Yiwei Zou, Chonghao Chen, Peiqi Niu, Xiangyu Liang, Chi Tat Kwok, Bingpu Zhou, Chunming Wang, Yan Yan Shery Huang, Ji Liu, Iek Man Lei, Concentric ice-templating of ultra-compressible tough hydrogels with bioinspired circumferentially aligned architecture, *Science Advances* 2025, 11, eadv7786.
  23. Zhipeng Huang, Shuli Bai, Ping Wei, Hailong Zheng, Yihao Lin, Yunhao Cao, Xiangyuan Zhang, Haomiao Jing, Bingpu Zhou, and Chao Peng, Highly efficient photoenzymatic CO<sub>2</sub> reduction via integrated structural design of porphyrin covalent organic framework on Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (MXene), *Separation and Purification Technology* 2025, 132943.
  24. Tao Liu, Qinan Wu, Huansheng Liu, Xiyang Zhao, Xin Yi, Jing Liu, Zhenzhen Nong, Bingpu Zhou, Qingwen

- Wang, Zhenzhen Liu, A crosslinked eutectogel for ultrasensitive pressure and temperature monitoring from nostril airflow, *Nature Communications* 2025, 16, 3334.
25. Hailong Zheng, Zhipeng Huang, Ping Wei, Yihao Lin, Yunhao Cao, Xiangyuan Zhang, Bingpu Zhou, and Chao Peng, Rh-functionalized Imino-pyridine Covalent Organic Framework Assembled on Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> (MXene) for Efficient NADH Regeneration and Photoenzymatic CO<sub>2</sub> Reduction, *ACS Sustainable Chemistry & Engineering* 2025, 13, 10, 4078-4092.
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  29. Qiao Zhong, Yongyun Mao, Bingpu Zhou, and Wanbiao Hu, All-textile 3D triboelectric nanogenerator derived from bidirectional cross-weaving binary-yarns for bio-motion energy harvesting and sensing, *Chemical Engineering Journal* 2025, 504, 158871.
  30. Ziyu Huang, Yinning Zhou, Yu Liu, Yue Quan, Qiu Yin, Yucheng Luo, Yimeng Su, Bingpu Zhou, Wenming Zhang, Benpeng Zhu, Zhichao Ma, Advancing Cellular Transfer Printing: Achieving Bioadhesion-Free Deposition via Vibration Microstreaming, *Lab on a Chip* 2025, 25, 296-307.
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  32. Biao Qi, Sen Ding, Yuanzhe Liang, Dan Fang, Ming Lei, Wenxue Dai, Chao Peng, and **Bingpu Zhou**,\* Bio-inspired Magnetized String with Tension-dependent Eigenfrequencies for Wearable Human-machine Interactions, *ACS Applied Materials & Interfaces* 2024, 16, 49, 68465-68477.
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  34. Wenxue Dai, Ming Lei, Ziyi Dai, Sen Ding, Fangcheng Wang, Dan Fang, Rongmei Wang, Biao Qi, Guoping Zhang,\* and **Bingpu Zhou**,\* Self-Adhesive Electronic Skin with Bio-inspired 3D Architecture for Mechanical Stimuli Monitoring and Human-machine Interactions, *Small* 2024, 2406564.
  35. Yuxin Wang, Shizheng Zhou, Yue Quan, Yu Liu, Bingpu Zhou, Xiuping Chen, Zhichao Ma, and Yinning Zhou, Label-Free Spatiotemporal Decoding of Single-Cell Fate via Acoustic Driven 3D Tomography, *Materials Today Bio*, 2024, 28, 101201.
  36. Chao Peng, Yiming Chen, Xingyue Gao, Ping Wei, Yihao Lin, Li Fu, Bingpu Zhou, Mengchen Zhang, Jianbo Jia, and Tiangang Luan, Construction of 2D/2D ZnIn<sub>2</sub>S<sub>4</sub>/Nb<sub>2</sub>CT<sub>x</sub> (MXene) hybrid with hole transport highway and active facet exposure boost photocatalytic hydrogen evolution, *Journal of Colloid and Interface Science*, 2024, 673, 958-970.
  37. Yuanzhe Liang, Ziyi Dai, Sen Ding, Yuan Zhang, Yinning Zhou, and **Bingpu Zhou**,\* Coupling of Induction with Damping Behavior for Viscosity Sensing via Design of Magnetized Oscillator, *Advanced Sensor Research* 2024, 240055.
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  39. Sen Ding, Dazhe Zhao, Yongyao Chen, Ziyi Dai, Qian Zhao, Yibo Gao, Junwen Zhong, Jianyi Luo, and

- Bingpu Zhou**,\* Single channel based interference-free and self-powered human-machine interactive interface using eigenfrequency-dominant mechanism, *Advanced Science* 2024, 2302782.
40. Dan Fang,<sup>†</sup> Sen Ding,<sup>†</sup> Qian Zhou, Dazhe Zhao, Junwen Zhong, and **Bingpu Zhou**,\* Crosstalk-Free Position Mapping for One-Step Reconstruction of Surface Topological Information via Eigenfrequency-Registered Wearable Interface, *ACS Nano* 2024, 18, 1157-1171.
  41. Sen Ding, Dan Fang, Yuanzhe Liang, Wenxue Dai, Biao Qi, and **Bingpu Zhou**,\* Design of parallel coil arrays with identifiable eigenfrequency elements for wearable human-machine interactions, *Applied Materials Today* 2024, 36, 102039.
  42. Lekai Chang, Shuli Bai, Ping Wei, Xingyue Gao, Jinfeng Dong, Bingpu Zhou, Chao Peng, Jianbo Jia, Tiangang Luan, Quantitative detecting low concentration polystyrene nanoplastics in aquatic environments via an Ag/Nb2CTx (MXene) SERS substrate, *Talanta* 2024, 273, 125859.
  43. Xingyue Gao, Jiayu Yuan, Ping Wei, Jinfeng Dong, Lekai Chang, Zhipeng Huang, Hailong Zheng, Jiewei Liu, Jianbo Jia, Tiangang Luan, Bingpu Zhou, Hao Yu, and Chao Peng, Rational Regulation of the Exciton Effect of Acrylonitrile-Linked Covalent Organic Framework towards Boosting Visible-Light-Driven Hydrogen Evolution, *ACS Catalysis* 2024, 14, 533-546.
  44. Ziyi Dai, Ming Lei, Sen Ding, Qian Zhou, Bing Ji, Mingrui Wang, and **Bingpu Zhou**,\* Durable superhydrophobic surface in wearable sensors: from nature to application, *Exploration* 2024, 4: 20230046.
  45. Ruolin Liu, Bing Ji,\* Ming Lei, Fengming Hu, and **Bingpu Zhou**,\* Simultaneous Optimization of Sensitivity and Linearity for Flexible Pressure Sensor via Coupling Effect between Micro-structures and Flat Substrate Component, *ACS Applied Electronic Materials* 2023, 5, 12, 6918-6928.
  46. Yue Quan, Ziyu Huang, Yuxin Wang, Yu Liu, Sen Ding, Qian Zhao, Xiuping Chen, Haifeng Li, Zikang Tang, **Bingpu Zhou**\*, and Yinning Zhou\*, Coupling of Static Ultramicromagnetic Field with Elastic Micropillar-structured Substrate for Cell Response, *Materials Today Bio* 2023, 23, 100831.
  47. Ming Lei, Bing Ji, Sen Ding, Ruolin Liu, and **Bingpu Zhou**,\* Template-free formation of hybrid dielectric for flexible capacitive sensors with wide-pressure-range linear detection, *Advanced Materials Technologies* 2023, 8, 2301077. **(Inside Front Cover)**
  48. Mingshi Deng, Wei Jin, Wenjuan Yang, Lingling Tian, Xinghua Gao, Xuefeng Wang, Lingyan Feng, Metini Janyasupab, Bingpu Zhou, and Yuan Zhang, Ultrathin Cu-TCPP Nanosheet-Based Electrochemical Microsensor for Detecting the Immunosuppressive Drug Mycophenolic Acid, *ACS Applied Nano Materials* 2023, 6, 24, 22979-22988.
  49. Yucong Pi, Qiutong Liu, Zhaoyang Li, Dazhe Zhao, Kaijun Zhang, Zhirui Liu, **Bingpu Zhou**, Iek Man Lei, Yuan Ma, and Junwen Zhong, Scalable and eco-friendly flexible loudspeakers for distributed human-machine interactions, *npj Flexible Electronics* 2023, 7, 45.
  50. Kai Feng, Ming Lei, Xianli Wang, **Bingpu Zhou**, and Qingsong Xu, A Flexible Bidirectional Interface with Integrated Multimodal Sensing and Haptic Feedback for Closed - Loop Human-Machine Interaction, *Advanced Intelligent Systems* 2023, 5, 2300291.
  51. Runxing Lin,<sup>†</sup> Ming Lei,<sup>†</sup> Sen Ding, Quansheng Cheng, Zhichao Ma, Liping Wang, Zikang Tang, **Bingpu Zhou**,\* and Yinning Zhou,\* Applications of Flexible Electronics related to cardiocerebral vascular system, *Materials Today Bio* 2023, 23, 100787.
  52. Huifang Ou, Ziyi Dai, Yibo Gao, and **Bingpu Zhou**,\* Breathable Fabrics with Robust Superhydrophobicity via in-situ Formation of Hierarchical Surface Morphologies, *ACS Applied Materials & Interfaces* 2023, 15, 33, 39989-40000.
  53. Dan Fang, Sen Ding, Ziyi Dai, Junwen Zhong, and **Bingpu Zhou**,\* Wearable Patch with Direction-aware Sensitivity of In-plane Force for Self-powered and Single Communication Channel based Human-machine Interaction, *Chemical Engineering Journal* 2023, 468, 143664.
  54. Yu Liu, Qiu Yin, Yucheng Luo, Ziyu Huang, Quansheng Cheng, Wenming Zhang, Bingpu Zhou, Yinning Zhou, and Zhichao Ma, Manipulation with Sound and Vibration: A Review on the Micromanipulation

System Based on Sub-MHz Acoustic Waves, *Ultrasonics Sonochemistry* 2023, 96, 106441.

55. Ting Wang, Bing Ji, Zehua Cheng, Ling Chen, Mai Luo, Jinchao Wei, Yuefei Wang, Liang Zou, Yuanzhe Liang, **Bingpu Zhou**,\* and Peng Li,\* Semi-wrapped gold nanoparticles for surface-enhanced Raman scattering detection, *Biosensors & Bioelectronics* 228 (2023) 115191.
56. Yizhou Li, Zhiming Chen, Youbin Chen, Hao Yang, Junyong Lu, Zhennan Li, Yongyao Chen, Dongyi Ding, Cuiying Zeng, **Bingpu Zhou**, Hongpeng Liang, Xingpeng Huang, Jajia Hu, Jingcheng Huang, Jinxiu Wen, and Jianyi Luo, A smart bionic finger for subsurface tactile tomography, *Cell Reports Physical Science* 2023, 4, 101257.
57. Yuzhang Wei, Qian Zhou, Ziqiang Chi, Bing Ji, **Bingpu Zhou**, and Qingsong Xu, Design and Testing of a New Microinjector With Capacitive Force Sensor for Biological Microinjection, *IEEE Transactions on Automation Science and Engineering* 2023.
58. Jing Liu, Fei Liao, Zhiming Chen, Renhao Zhou, Xiaoming Zhong, Bo Liu, Zaijun Wang, Mingyi He, Hongxu Lin, Zibin Zhang, Shengsheng Lu, Leyi Zeng, **Bingpu Zhou**, Guoning Chen, Jingchen Huang, Aiping Huang, Jianyi Luo, Digitizing Human Motion via Bending Sensors toward Humanoid Robot, *Advanced Intelligent Systems* 2023, 2200337.
59. Yujun Shi, Kaijun Zhang, Sen Ding, Zhaoyang Li, Yuhao Huang, Yucong Pi, Dazhe Zhao, Yaowen Zhang, Renkun Wang, **Bingpu Zhou**, Zhi-Xin Yang, and Junwen Zhong, A Self-Powered Piezoelectret Sensor Based on Foamed Plastic Garbage for Monitoring Human Motions, *Nano Research* 2023, 16(1), 1269-1276.
60. Yuzhang Wei, Zehao Wu, Ziyi Dai, **Bingpu Zhou**,\* and Qingsong Xu,\* Design of a Magnetic Soft Inchworm Millirobot Based on Pre-Strained Elastomer with Micropillars, *Biomimetics* 2023, 8(1), 22.
61. Qian Zhou, Bing Ji, Fengming Hu, Ziyi Dai, Sen Ding, Hao Yang, Junwen Zhong, Yancong Qiao, Jianhua Zhou, Jianyi Luo, and **Bingpu Zhou**,\* Magnetized Microcilia Array based Self-powered Electronic Skin for Micro-scaled 3D Morphology Recognition and High-capacity Communication, *Advanced Functional Materials* 2022, 2208120.
62. Ming Lei, Kai Feng, Sen Ding, Mingrui Wang, Ziyi Dai, Ruolin Liu, Yibo Gao, Yinning Zhou, Qingsong Xu,\* and **Bingpu Zhou**,\* Breathable and waterproof electronic skin with three-dimensional architecture for pressure and strain sensing in non-overlapping mode, *ACS Nano* 2022, 16 (8), 12620-12634.
63. Sen Ding, Mingrui Wang, Hao Yang, Fengming Hu, Ziyi Dai, Ming Lei, Qian Zhou, Dazhe Zhao, Yibo Gao, Junwen Zhong, Jianyi Luo,\* and **Bingpu Zhou**,\* Sweeping-responsive Interface Using the Intrinsic Polarity of Magnetized Micropillars for Self-Powered and High-capacity Human-machine Interaction, *Nano Energy* (102) 2022, 107671.
64. Ziyi Dai, Kai Feng, Mingrui Wang, Ming Lei, Sen Ding, Jianyi Luo, Qingsong Xu, and **Bingpu Zhou**,\* Optimization of Bidirectional Bending Sensor as Flexible Ternary Terminal for High-capacity Human-machine Interaction, *Nano Energy* (97) 2022, 107173.
65. Ge Chen,<sup>†</sup> Ziyi Dai,<sup>†</sup> Sen Ding, Ming Lei, Jing Lin, Shuangpeng Wang, Yinning Zhou, Hui Pan, and **Bingpu Zhou**,\* Realization of Integrative Hierarchy by In-situ Solidification of ‘Semi-cured’ Microcilia Array in Candle Flame for Robust and Flexible Superhydrophobicity, *Chemical Engineering Journal* 2022, 432, 134400.
66. Ziyi Dai, Hongda Guo, Qiaoxian Huang, Sen Ding, Yiteng Liu, Yibo Gao, Yinning Zhou, Guoxing Sun,\* and **Bingpu Zhou**,\* Mechanically Robust and Superhydrophobic Concrete based on Sacrificial Template Approach, *Cement and Concrete Composites* 2022, 134, 104796.
67. Sen Ding, Ziyi Dai, Ge Chen, Ming Lei, Qi Song, Yibo Gao, Yinning Zhou,\* and **Bingpu Zhou**,\* Regulation of Droplet Rebound Behavior with Contact Time Control on Flexible and Superhydrophobic Film, *Langmuir* 2022, 38, 9, 2942-2953. **(Cover Paper)**
68. Yancong Qiao, Guangyang Gou, Hua Shuai, Fei Han, Haidong Liu, Hao Tang, Xiaoshi Li, Jinming Jian, Yuhong Wei, Yuanfang Li, Chenglin Xie, Xinyi He, Zhiyuan Liu, Rong Song, **Bingpu Zhou**, He Tian, Yi Yang, Tian-Ling Ren, and Jianhua Zhou, Electromyogram-Strain Synergetic Intelligent Artificial Throat,

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### Conference presentations

1. **(Invited)** 2025 材料科学与智能制造研讨会, 22-24 August, Changsha, China
2. **(Invited)** The 2<sup>nd</sup> International Conference on AI Sensors and Transducers, 29 July - 03 August 2025, Kuala Lumpur, Malaysia
3. **(Invited)** 2025 第六届大湾区软物质生命物质论坛, 10-13 January, Guangzhou, China
4. **(Invited)** The International Youth Conference of Bionic Science and Engineering 2024, 20-22 September, Nanjing, China
5. **(Invited)** The 2nd Symposium on Advanced Materials and Smart Sensing Devices, 23-25 August, Changsha, China
6. **(Invited)** The 1<sup>st</sup> International Conference on AI Sensors & The 10<sup>th</sup> International Symposium on Sensor Science, 01-04 August 2024, Singapore
7. **(Invited)** The 12th International Conference on Nanostructures, Nanomaterials and Nanoengineering (ICNN 2023), co-located with 2023 The 8th International Conference on Materials Technology and Applications (ICMTA 2023), Fukuoka, Japan
8. **(Invited)** 2023 International Conference on Advanced Fibers and Polymer Materials, Oct 20-24 2023, Shanghai, China.
9. **(Invited)** 先進材料與智能傳感器件研討會, August 2023, Beijing, China
10. **(Invited)** International Conference on Biomaterials, Bio-design and Manufacturing, August 2023, Singapore.
11. **(Invited)** 2023中国微米纳米技术学会柔性电子技术与应用创新论坛, May 2023, Suzhou, China.
12. **(Invited)** 2022海峡两岸暨港澳青年科学家智能可穿戴技术创新论坛, Nov 2022, Hangzhou, China.
13. **(Invited)** 第二屆柔性光電材料與智能傳感發展論壇, Oct 2022, Shenzhen, China.
14. **(Invited)** 光電講壇OE Forum 第十一期暨2022年光電青年專場. Opto-Electronic Advances, May 2022.
15. B. P. Zhou, Wearable Sensors, The 13th National Conference on Micro Total Analysis Systems, The 8th National Symposium on Micro/Nano Scale Bioseparations and Bioanalysis, The 8th International Colloquium on Microfluidics, April 23-25, 2021, Shenzhen, China.
16. **(Invited)** 柔性可穿戴压力传感器的性能优化研究, 深港澳青年科学家微米纳米技术协同创新论坛, Nov 2020.
17. **B. P. Zhou**, Assembly of Magnetic Nano-particles with Micro-pillar Arrays in Microfluidics System for Rapid and Controllable Mixing, *The 8th International Conference on Nanostructures, Nanomaterials, and Nanoengineering*, October 11-14, 2019, Kyoto, Japan.

18. **B. P. Zhou**, and W. J. Wen, Multi-functionalized PDMS with Controllable and Scalable Surface Topologies, *The 9th International Multidisciplinary Conference on Optofluidics (IMCO 2019)*, June 14-17, 2019, Hong Kong.
19. **(Invited) B. P. Zhou**, Rapid and Efficient Mixing on 'Open-surface' Droplet Microfluidics, *The 8th International Multidisciplinary Conference on Optofluidics (IMCO 2018)*, August 5-8, 2018, Shanghai, China.
20. **(Invited) B. P. Zhou**, Manipulation of Micro-drops on Deformable Superhydrophobic Platform enabled via Magnetic Actuation, *2018 Joint Annual Conference of Physical Societies in Guangdong-Hong Kong-Macao Greater Bay Area*, July 26-29, 2018, Macau, China.
21. **(Invited) B. P. Zhou**, Enabling Uniform and Efficient Droplet-based Analyte Mixing via Super-hydrophobic and Magnetically Functionalized PDMS Membrane, *11th National Conference on Soft Matter and Biophysics*, Chongqing, November 09-12, 2018.
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