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### Educational background

2007 Ph.D. 臺大應用力學研究所

### Employment background

2022/08 – 臺大應用力學研究所教授

2022/08 – 臺大奈米機電系統研究中心主任

2018 – 2022 臺大應用力學研究所副教授

2016 – 2018 臺大應用力學研究所助理教授

2011 – 2016 中興醫工所助理教授

2010 – 2011 Postdoctoral, Department of Chemistry and Biochemistry,  
University of Maryland, College Park

2007 – 2010 Postdoctoral, Dept. of Mechanical Engineering, University of  
Maryland, College Park

### Award

1. 國科會傑出研究獎 (2021)
2. 國科會吳大猷先生紀念獎 (2019)
3. 臺灣大學「年度績優教師」(2021、2022)
4. 臺灣大學工學院「學術勵進獎」(2021)
5. 國科會未來科技獎 (2019、2020)

### Selective Publication

1. Y. M. Liao, P. Y. Chiu, Y. S. Chien, and C. F. Chen\*, A Music Box-Inspired Semi-Automatic Hematocrit Validation Device, *ACS Sensors*, 2023, 8, 2952-2959.

- 2.** W. Y. Chu, Y. R. Chiou, R. H. Luo, T. H. Chen, C. J. Yu, Y. J. Chou, H. T. Chang, and C. F. Chen\*, Partially Miscible Droplet Microfluidics to Enhance Interfacial Adsorption of Hydrophilic Nanoparticles for Colloidosome Synthesis, *Chemical Engineering Journal*, 2023, 471, 144223.
- 3.** S. C. Wu, T. T. Tsai, T. H. Li, C. Y. Tung, P. Y. Chiu, J. H. Lin, and C. F. Chen\*, Palladium-Platinum Bimetallic Nanomaterials and Their Application in *Staphylococcus Aureus* Detection on Paper-Based Devices, *Biosensors and Bioelectronics*, 2022, 216, 114669.
- 4.** J. H. Lin, S. J. Chen, J. E. Lee, W. Y. Chu, C. J. Yu, C. C. Chang\*, and C. F. Chen\*, The Detection of Mercury(II) Ions Using Fluorescent Gold Nanoclusters on a Portable Paper-Based Device, *Chemical Engineering Journal*, 2022, 430, 133070.
- 5.** H. Yuan, J. Tian, Y. Chao, Y. S. Chien, R. H. Luo, J. Y. Guo, S. Li, Y. J. Chou, H. C. Shum\*, and C. F. Chen\*, Hand-Powered Microfluidics for Parallel Droplet Digital Loop-Mediated Isothermal Amplification Assays, *ACS Sensors*, 2021, 6, 2868–2874.
- 6.** C. A. Chen, H. Yuan, C. W. Chen, Y. S. Chien, W. H. Sheng, and C. F. Chen\*, An electricity- and instrument-free infectious disease sensor based on a 3D origami paper-based analytical device, *Lab on a Chip*, 2021, 21, 1908-1915.
- 7.** H. Yuan, T. T. Tsai, H. P. Wang, Y. S. Chien, C. A. Chen, C. C. Chu, C. T. Ho, P. H. Chu, and C. F. Chen\*, A Manual and Portable Centrifuge Combined with a Paper-Based Immunoassay for Myocardial Infarction Diagnosis, *Chemical Engineering Journal*, 2021, 409, 128131.
- 8.** J. H. Lin, T. T. Tsai, Q. Zeng, C. Y. Chang, J. Y. Guo, C. J. Lin, and C. F. Chen\*, A Multifunctional Microfluidic Device for Blood Typing and Primary Screening of Blood Disease, *ACS Sensors*, 2020, 5, 3082–3090.
- 9.** T. T. Tsai, C. A. Chen, Y. J. N. Ho, S. Yang, and C. F. Chen\*, Fluorescent Double-Stranded DNA-Templated Copper Nanoprobes for Rapid Diagnosis of Tuberculosis, *ACS Sensors*, 2019, 4, 2885-2892.
- 10.** C. A. Chen, W. S. Yeh, T. T. Tsai, Y. D. Li, and C. F. Chen\*, Three-Dimensional Origami Paper-Based Device for Portable Immunoassay Applications, *Lab on a Chip*, 2019, 19, 598 - 607.
- 11.** C. H. Liu, C. A. Chen, S. J. Chen, T. T. Tsai, C. C. Chu, C. C. Chang\*, and C. F. Chen\*, Blood Plasma Separation Using a Fidget-Spinner, *Analytical Chemistry*, 2019, 91, 1247–1253.