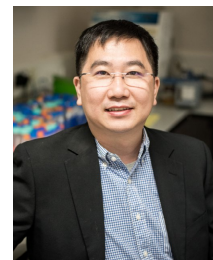


Mo Yang
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Biography

Prof. YANG Mo received the B.E. and M.S. degrees in Power Mechanical Engineering from Shanghai Jiaotong University, China, in 1998 and 2001, respectively. He received the Ph.D. degree in Mechanical Engineering from the University of California, Riverside, in 2004. From Jan 2005 to Oct 2005, he was a Postdoctoral Research Associate in Mechanical Engineering of Boston University. He is currently a Chair Professor at Department of Biomedical Engineering and Sports Technology, Associate Dean (Research) of Faculty of Engineering, Director for Joint Research Center of Biosensing and Precision Theranostics, Associate Director of University Research Facility in Life Sciences, the Hong Kong Polytechnic University. Prof. Yang's research focuses on microfluidic device for biosensing, and nanomaterials based bioprobes for bioimaging, biosensing and precision theranostics. Prof. Yang has published more than 170 journal papers and is involved in 4 US patents and 7 China patents. He has been in charge of many research projects including 3 Hong Kong Research Grant Council Collaborative Research Fund (CRF) as Principle Coordinator (2024, 2022, 2020), 9 Hong Kong Research Grant Council General Research Fund (GRF) as Principle Investigators, 2 National Natural Science Foundation of China (NSFC) fund and 2 Innovation and Technology Fund (ITF) as Principle Investigators, 1 深港澳科技計劃項目(c類) as Principle Investigator, and 1 Research Grant Council Collaborative Research Fund (CRF) as Co-PI etc.

Qualifications

Work Experiences

Chair Professor, Department of Biomedical Engineering, The Hong Kong Polytechnic University, Feb 2025-Current

Professor, Department of Biomedical Engineering, The Hong Kong Polytechnic University, Jul 2018 - Feb 2025

Associate Professor, Department of Biomedical Engineering, The Hong Kong Polytechnic University, Oct 2017 - Jun 2018

Associate Professor, Interdisciplinary Division of Biomedical Engineering, The Hong Kong Polytechnic University, Jul 2012 - Sep 2017

Assistant Professor, Interdisciplinary Division of Biomedical Engineering, The Hong Kong Polytechnic University, Apr 2012 - Jul 2012

Assistant Professor, Biomedical Engineering Programme, Department of Health Technology and Informatics, the Hong Kong Polytechnic University, Oct 2005 - Mar 2012

Representative Research Outputs

- Mechanics and Actomyosin-Dependent Survival/Chemoresistance of Suspended Tumor Cells in Shear Flow**
Xin, Y., Chen, X., Tang, X., Li, K., Yang, M., Tai, W. C. S., Liu, Y. & Tan, Y., 21 May 2019, In: Biophysical Journal. 116, 10, p. 1803-1814 12 p.
- Porphyrinic Metal-Organic Framework PCN-224 Nanoparticles for Near-Infrared-Induced Attenuation of Aggregation and Neurotoxicity of Alzheimer's Amyloid- β Peptide**
Wang, J., Fan, Y., Tan, Y., Zhao, X., Zhang, Y., Cheng, C. & Yang, M., 31 Oct 2018, In: ACS Applied Materials and Interfaces. 10, 43, p. 36615-36621 7 p.
- One-Step in Situ Detection of miRNA-21 Expression in Single Cancer Cells Based on Biofunctionalized MoS₂ Nanosheets**
Oudeng, G., Au, M., Shi, J., Wen, C. & Yang, M., 10 Jan 2018, In: ACS Applied Materials and Interfaces. 10, 1, p. 350-360 11 p.
- A fluorescence turn-on biosensor based on graphene quantum dots (GQDs) and molybdenum disulfide (MoS₂) nanosheets for epithelial cell adhesion molecule (EpCAM) detection**
Shi, J., Lyu, J., Tian, F. & Yang, M., 15 Jul 2017, In: Biosensors and Bioelectronics. 93, p. 182-188 7 p.
- A graphene quantum dot@Fe₃O₄@SiO₂ based nanoprobe for drug delivery sensing and dual-modal fluorescence and MRI imaging in cancer cells**
Su, X., Chan, C., Shi, J., Tsang, M. K., Pan, Y., Cheng, C., Gerile, O. & Yang, M., 15 Jun 2017, In: Biosensors and Bioelectronics. 92, p. 489-495 7 p.

6. **Graphene and graphene-like two-denominational materials based fluorescence resonance energy transfer (FRET) assays for biological applications**
Tian, F., Lyu, J., Shi, J. & Yang, M., 15 Mar 2017, In: Biosensors and Bioelectronics. 89, p. 123-135 13 p.
7. **Ultrasensitive detection of Ebola virus oligonucleotide based on upconversion nanoprobe/nanoporous membrane system**
Tsang, M. K., Ye, W., Wang, G., Li, J., Yang, M. & Hao, J., 26 Jan 2016, In: ACS Nano. 10, 1, p. 598-605 8 p.
8. **A fluorescence resonance energy transfer (FRET) biosensor based on graphene quantum dots (GQDs) and gold nanoparticles (AuNPs) for the detection of mecA gene sequence of Staphylococcus aureus**
Shi, J., Chan, C., Pang, Y., Ye, W., Tian, F., Lyu, J., Zhang, Y. & Yang, M., 5 May 2015, In: Biosensors and Bioelectronics. 67, p. 595-600 6 p.
9. **A graphene oxide based fluorescence resonance energy transfer (FRET) biosensor for ultrasensitive detection of botulinum neurotoxin A (BoNT/A) enzymatic activity**
Shi, J., Guo, J., Bai, G., Chan, C., Liu, X., Ye, W., Hao, J., Chen, S. & Yang, M., 5 Mar 2015, In: Biosensors and Bioelectronics. 65, p. 238-244 7 p.
10. **Upconversion luminescence resonance energy transfer (LRET)-based biosensor for rapid and ultrasensitive detection of avian influenza virus H7 subtype**
Ye, W. W., Tsang, M. K., Liu, X., Yang, M. & Hao, J., 25 Jun 2014, In: Small. 10, 12, p. 2390-2397 8 p.
11. **A hydrophilic polymer based microfluidic system with planar patch clamp electrode array for electrophysiological measurement from cells**
Xu, B. J., Ye, W. W., Zhang, Y., Shi, J. Y., Chan, C. Y., Yao, X. Q. & Yang, M., 5 Mar 2014, In: Biosensors and Bioelectronics. 53, p. 187-192 6 p.
12. **Bio-mimetically synthesized Ag@BSA microspheres as a novel electrochemical biosensing interface for sensitive detection of tumor cells**
Hu, C., Yang, D. P., Wang, Z., Huang, P., Wang, X., Chen, D., Cui, D., Yang, M. & Jia, N., 15 Mar 2013, In: Biosensors and Bioelectronics. 41, 1, p. 656-662 7 p.
13. **Ultrasensitive detection of E. coli O157:H7 with bifunctional magnetic bead concentration via nanoporous membrane based electrochemical immunosensor**
Chan, K. Y., Ye, W. W., Zhang, Y., Xiao, L. D., Leung, H. M. P., Li, Y. & Yang, M., 15 Mar 2013, In: Biosensors and Bioelectronics. 41, 1, p. 532-537 6 p.
14. **The application of organic electrochemical transistors in cell-based biosensors**
Lin, P., Yan, F., Yu, J., Chan, H. L. W. & Yang, M., 1 Aug 2010, In: Advanced Materials. 22, 33, p. 3655-3660 6 p.
15. **A surface-charge study on cellular-uptake behavior of F₃- peptide-conjugated iron oxide nanoparticles**
Zhang, Y., Yang, M., Park, J. H., Singelyn, J., Ma, H., Sailor, M. J., Ruoslahti, E., Ozkan, M. & Ozkan, C., 4 Sept 2009, In: Small. 5, 17, p. 1990-1996 7 p.
16. **Impedance studies of bio-behavior and chemosensitivity of cancer cells by micro-electrode arrays**
Liu, Q., Yu, J., Xiao, L., Tang, C. O., Zhang, Y., Wang, P. & Yang, M., 1 Jan 2009, In: Biosensors and Bioelectronics. 24, 5, p. 1305-1310 6 p.
17. **Label-free DNA sensor based on organic thin film transistors**
Yan, F., Mok, S. M., Yu, J., Chan, H. L. W. & Yang, M., 1 Jan 2009, In: Biosensors and Bioelectronics. 24, 5, p. 1241-1245 5 p.
18. **Zeta potential: A surface electrical characteristic to probe the interaction of nanoparticles with normal and cancer human breast epithelial cells**
Zhang, Y., Yang, M., Portney, N. G., Cui, D., Budak, G., Ozbay, E., Ozkan, M. & Ozkan, C. S., 1 Apr 2008, In: Biomedical Microdevices. 10, 2, p. 321-328 8 p.
19. **AlGaIn/GaN heterostructures for non-invasive cell electrophysiological measurements**
Yu, J., Jha, S. K., Xiao, L., Liu, Q., Wang, P., Surya, C. & Yang, M., 30 Nov 2007, In: Biosensors and Bioelectronics. 23, 4, p. 513-519 7 p.
20. **A novel microfluidic impedance assay for monitoring endothelin-induced cardiomyocyte hypertrophy**
Yang, M., Lim, C. C., Liao, R. & Zhang, X., 15 Mar 2007, In: Biosensors and Bioelectronics. 22, 8, p. 1688-1693 6 p.

Professional Experiences

Chinese Chemical Letters (Journal)

Yang, M. (Editorial board member)
2018 → ...

Current Nanomaterials (Journal)

Yang, M. (Editorial board member)
2017 → ...

International Journal of Bioanalysis & Biomedicine (Journal)

Yang, M. (Editorial board member)

2017 → ...

Nanoscience and Nanotechnology - Asia (Journal)

Yang, M. (Editorial board member)

2017 → ...

Journal of Biomedical Imaging and Bioengineering (Journal)

Yang, M. (Editorial board member)

2016 → ...

Austin Journal of Biosensors & Bioelectronics (Journal)

Yang, M. (Editorial board member)

2014 → ...

Nano Biomedicine and Engineering (Journal)

Yang, M. (Editorial board member)

2009 → ...

Prizes**Special Merit Award from Scientific Community of Romania**

Hao, J. (Recipient), Yang, M. (Recipient), TSANG, M. K. (Recipient) & YE, W. (Recipient), Mar 2017

Gold Medal with the Congratulations of Jury

Hao, J. (Recipient), Yang, M. (Recipient), TSANG, M. K. (Recipient) & YE, W. (Recipient), Mar 2017

The Faculty Merit Award for Outstanding Performance/Achievement in Research (Individual)

Yang, M. (Recipient), 2015

Gold Medal, invention 'Biosensor to safeguard food safety', under section 'Farming and food industry'

Yang, M. (Recipient) & Leung, H. M. P. (Recipient), Nov 2009

Bronze Award

Lo, C. L. S. (Recipient), LEUNG, C.-P. M. (Recipient), LEUNG, W.-F. W. (Recipient), CHENG, C.-H. (Recipient), Yang, M. (Recipient), Or, S. W. (Recipient), CHAO, C. (Recipient) & FLETCHER, P. T. (Recipient), Oct 2008