

PROFESSOR FANG XIE

Professor of Functional Materials,
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IMPERIAL COLLEGE LONDON – Department of Materials

2008 – present

- 2022 – present: Professor of functional materials, Department of Materials, Imperial College London
- 2020 – 2022: Reader, Department of Materials, Imperial College London
- 2017 – 2020: Senior Lecturer, Department of Materials, Imperial College London
- 2013 – 2017: Lecturer, Department of Materials, Imperial College London
- 2010 – 2013: Imperial College Research Fellow, Department of Materials, Imperial College London
- 2008 – 2010: PDRA, Department of Materials, Imperial College London

RESEARCH PROFILE

Fang Xie joined Imperial College London in 2008. Her research is in the area of plasmonic materials with a particular emphasis on the role of plasmonic and nanoscale properties in enhancing devices for healthcare and energy applications. The work from her research group combines numerical modelling, system design and fabrication, and testing and characterisation – carried out correlatively. Building interdisciplinary teams and worldwide collaborations with leading research institutions, she leads an interdisciplinary research group; currently three PDRA's and 12 PhD students working across applied nanomaterials science and engineering. She has a research portfolio of over £12 M from a range of sources: (EPSRC, Royal Academy of Engineering, the Leverhulme Trust, Michael J. Fox Foundation (US), British Council, Royal Society, NERC, Prostate Cancer UK, and Imperial College London). She published over 100 high quality journal articles.

Examples of Academic Esteems

- 2025: Invited Talk, 247th ECS Meeting, Montreal, May 18-22, 2025
- 2024: Invited Talk, 245th ECS Meeting, San Francisco, May 26 – 30, 2024
- 2023: Keynote Talk, 7th Cancer World Congress, Palermo, Italy, May 29-31, 2023
- 2023: Invited Talk, 244th ECS Meeting, Gothenburg, Sweden, October 8-12, 2023
- 2022: Plenary Talk: Cambridge University Scientific Society, Cambridge, November 2022
- 2021: Invited Talk, 239th ECS Meetings, May 30-June 3, 2021, Digital Meeting
- 2020: Invited Review paper in *Materials Today*
- 2019: Materials Today Interview: <https://www.materialstoday.com/fang-xie-imperial-college-london>
- 2019: News - <https://www.rfi.ac.uk/science-update/a-new-star-of-early-cancer-diagnosis/>

Examples of recent publications (total >100 papers and ~10 patents)

- J Xu, K Evers, Y Lin, TA Tabish, Q Zhang, RJ Chung, MP Ryan, **F Xie**, Near infrared window active magnetic core spiky gold nanostars for dual mode imaging and photothermal therapy, *Materials Today Advances* 25, 100555, 2025
- J Xu, M Fu, Y Lu, A Centeno, J Xu, X Xiao, Q Zhang, K Evers, Y Xu, R Lim, C Liu, S Maier, R Oulton, MP Ryan, F Xie, Remarkable Plasmonic Enhanced Luminescence of Ce³⁺-doped Lanthanide Downconversion Nanoparticles in NIR-II Window by Silver Hole-Cap Nanoarrays, *Advanced Optical Materials* 12 (30), 2400660, 2024
- Y Lu, J Xu, DJ Riley, F Xie, Significant chemiluminescence enhancement by tannic acid functionalised plasmonic silver nanoparticles, *Journal of Materials Chemistry C* 12 (22), 7981-7988, 2024

EDUCATION

- 2005 – 2008: PhD, Macquarie University, Australia
- 1999 – 2002: Master of Engineering, National University of Singapore, Singapore
- 1995 – 1999: Bachelor of Engineering (1st class honours), Xi'an Jiaotong University, China

CURRICULUM VITAE