

Hanyang Ye

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Education

- 2015–2020 **DPHil Condensed Matter Physics, PhD**, University of Oxford, UK.
- 2017–2018 **Finance & Valuation Modelling Programme, Certificate**, Said Business School, University of Oxford, UK.
- 2014–2015 **M. Eng. Materials Engineering**, transferred to PhD education, Zhejiang University, China.
- 2010–2014 **B.E. Materials Science & Engineering**, Zhejiang University, China.
- 2012–2013 **Exchange Student**, Uppsala University, Sweden.

Awards & Scholarships

- 2015–2019 **CSC-OXFORD Scholarship**, University of Oxford & Chinese Scholarship Council.
Fully-funded tuition fee and stipend for DPhil studies in the University of Oxford
- 2019 **MCR Travel Grant**, St. Hugh's College, University of Oxford.
Travel grant supporting student's academic travelling, selection based on merits.
- 2017 **St. Hugh's College Amalgamated Funds (Sports Grant)**, St. Hugh's College, University of Oxford.
Sports grant supporting student to participate in the inter-university sport competitions.
- 2016 **PVSAT-12 Delegate Registration Bursary Award**, SuperSolar network.
- 2015 **COSF China Oxford Honorary Award**, China Oxford Scholarship Fund.
- 2014 **Outstanding graduate of Zhejiang Province**.
- 2014 **Outstanding Thesis of Zhejiang University**, Zhejiang University.
- 2013 **Mitacs Globalink Scholarship**, Mitacs & Chinese Scholarship Council.
Scholarship for fully-funded summer research internship in Canada.
- 2012–2013 **Excellent Student Awards**, Zhejiang University.
- 2011–2012 **Samsung Scholarship**.
- 2011–2012 **Second-class Scholarship for Outstanding Merits, Outstanding Students**, Zhejiang University.
- 2010–2011 **First-class Scholarship for Outstanding Merits, Outstanding Students**, Zhejiang University.

- 2010–2011 **Outstanding Student Leader Awards**, Zhejiang University.
2011 **Third prize in Zhejiang Province Physical Innovation Competition.**

Publications

- 1 **Ye, H.**; Kesava, S. V.; Hardigree, J. M.; Brown, R. E.; Mazzotta, G.; Warren, R.; Skabara, P.; Riede, M. Efficiency Enhancement of Small Molecule Organic Solar Cells Using Hexapropyltruxene as an Interface Layer. *J. Mater. Chem. C* 2020. <https://doi.org/10.1039/C9TC06845G>.
- 2 **Ye, H.**; Lauritzen, A.; Riede, M. Controlled growth of α -sexithiophene polymorphs via substrate treatment & temperature variation, *ACS Applied Materials & Interfaces*, to be submitted.
- 3 Ezugwu, S.; **Ye, H.**; Fanchini, G. Three-Dimensional Scanning near Field Optical Microscopy (3D-SNOM) Imaging of Random Arrays of Copper Nanoparticles: Implications for Plasmonic Solar Cell Enhancement. *Nanoscale* 2015, 7 (1), 252–260. <https://doi.org/10.1039/c4nr05094k>.
- 4 Duan, H.-G.; Jha, A.; Li, X.; Tiwari, V.; **Ye, H.**; Nayak, P. K.; Zhu, X.-L.; Li, Z.; Martinez, T. J.; Thorwart, M.; et al. Intermolecular Vibrations Drive Ultrafast Singlet Fission. *arXiv Prepr. arXiv1910.03338* 2019. (Science Advances, accepted)

Conference Contributions

- 2019 **14th International Symposium on Functional π -Electron Systems (F-Pi 14)**, Germany, poster presentation.
- 2018 **14th International Conference on Organic Electronics (ICOE-14)**, France, poster presentation.
- 2016 **Synchrotron Radiation School**, UK, delegate.
- 2016 **16th Photovoltaic Science, Applications and Technology Conference (PVSAT-12)**, UK, delegate.

Research Experience

- 2015–2020 **DPhil**, *Physics Department*, University of Oxford, UK.
Interface layer design and analysis for small molecule organic solar cells.
- 2013–2015 **Student Researcher**, *Department of Materials Science & Engineering*, Zhejiang University, China.
Assembly and biofunctions of SiO₂ nanospheres based films.
- 2013.07–09 **Summer Research Intern**, *Department of Physics and Astronomy*, University of Western Ontario, Canada.
Nanoscale imaging of plasmonic solar cells on transparent layers of graphene.

- 2012.06–07 **Summer Research Intern**, *Department of Materials Science & Engineering*, Zhejiang University, China.
Synthesis and analysis of $\text{Li}(\text{Ni}, \text{Co}, \text{Mn})\text{O}_2$ lithium-ion battery cathode material.
- 2012–2013 **Student Researcher**, *Department of Materials Science & Engineering*, Zhejiang University, China.
Research of nano-hollow microsphere structured MFe_2O_4 as a lithium-ion battery cathode material.

Industry & Teaching Experience

- 2020.01 **R&D Intern**, *Zhejiang Energy Group R&D*, Zhejiang Energy Group Co Ltd., China.
Research about the photovoltaic industry, photovoltaic company due diligence, assist in report writing & grant application. I am applying provincial funding for solar cell research based on the research platform of Zhejiang Energy Group Co Ltd.
- 2019.07–08 **Summer Intern**, *Loan Management Department*, China Development Bank, China.
Industry research about photovoltaic companies in China.
- 2016–2017 **Lab demonstrator**, *Physics Department*, University of Oxford, UK.
Teach experiment skills in the general physics lab, 4 hrs every week.
- 2011.07–09 **Tutor**, Shinedao Education, Inc, China.
Teach high school physics and chemistry, ca. 6 hrs everyday.

Research Area & Technical Skills

- Background Condensed matter physics, materials science, chemistry and engineering.
- Research Organic semiconductors, organic solar cells, organic light-emitting devices, bio-
- Interests materials, bio-sensors, and lithium-ion battery materials.
- Skills Vacuum thermal evaporation, spin coating, hydro-thermal synthesis, combustion synthesis, X-ray diffraction (XRD), grazing-incidence wide-angle X-ray scattering (GIWAXS), grazing-incidence small-angle X-ray scattering (GISAXS), scanning electron microscopy (SEM), atomic force microscopy (AFM), profilometer, spectroscopic ellipsometry, photoluminescence spectroscopy (PL, both steady-state PL and time-resolved PL), cyclic voltammetry (CV) measurement, UV-vis spectroscopy, current-voltage (JV) measurement, external quantum efficiency (EQE) measurement, and internal quantum efficiency (IQE) measurement.
- Software Matlab, C, AutoCAD, Pro/Engineer, DAWN, Gwyddion, OriginLab, ChemDraw, Mercury, DPCtoolkit, Latex, Rigaku Smartlab, Photoshop, and MS Office.

Academic Skill Training

- 2018.02 **Trainee**, Workshop *Poster design and presentation*, University of Oxford.
- 2017.03 **Trainee**, Workshop *Being Part of an Effective and Enterprising Team*, University of Oxford.

- 2016.11 **Trainee**, Workshop *Scientific Writing: Getting Your Paper Published*, University of Oxford.
- 2016.03-06 **Attendant**, Academic English (MPLS) Course, University of Oxford.
- 2013.08 **Trainee**, Mitacs Step Workshop, Mitacs.
Intensive training for project management and presentation.

Leadership

- 2016–2019 **Vice-president**, Zhejiang University UK Alumni Association, UK.
- 2016–2017 **Cohort Member**, Oxford Global Leadership Initiative Program, University of Oxford.
One-year leadership training program for selected Oxford postgraduate student (12-14/year). Mentor: Mr. Timothy Beardson, founder of Crosby Financial Holdings, at the time the largest independent investment bank in the Far East.
- 2016–2017 **Student Representative**, Condensed Matter Physics Department, University of Oxford.
- 2015–2016 **Committee Member**, Liaison Subcommittee, Oxford Chinese Students & Scholars Association.
- 2010–2014 **Youth League Branch Secretary**, Zhejiang University.

Personal Development

- 2019.04 **Attendant**, How Can We Fund Sustainable Energy Course, University of Oxford.
- 2018.03 **Delegate**, Private Equity Forum 2018 (Oxford), University of Oxford.
- 2016.04–06 **Attendant**, NEST@Oxford, University of Oxford.
Training programme for DPhil student to solve real-world energy challenges. Case study and oral presentation on new energy automobiles.
- 2014.04-11 **Member**, ZJU-Hawks (Formula SAE team of Zhejiang University).
- 2012.06-07 **Co-fellow**, Crimson Summer Exchange, Zhejiang University.

Interests

Hiking, photography,
ballroom dance (medallist in Oxford-Cambridge Varsity Match).

Languages

Mandarin	Native
English	IELTS 7.0 (CEFR C1)
German	CEFR A1
Swedish	CEFR A1