

Lee Alan Burton

Personal Details

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Professional Summary

Status: Associate Professor (full time).
Affiliations: Member of the Royal Society of Chemistry.
Research Topics: Inorganic Chemistry, Condensed Matter Physics, Materials Engineering.
Accolades:
- Chinese National Science Foundation International Young Scientist Award 2019.
- Shanghai Municipal Government Eastern Young Scholar Award 2018.
- European Commission Seal of Excellence Award 2017.
- Japanese Material Research Society Encouragement 2012.
Publications: 25 peer-review research articles; 4 international patents covering 13 inventions.
Metrics: More than 1,900 citations; h-index: 17; 4 first-author papers with >140 citations.
Funding Awards: Early career fellowship, 3 International Research Fellowships, PhD Scholarship.
Languages: English (native), French (conversational), Mandarin (basic).

Qualifications

Doctoral Qualification: PhD in Sustainable Chemical Technologies, University of Bath, UK
Undergraduate Degree: Master of Chemistry (Hons), University of Warwick, UK
Other Qualifications: Master of Research (Merit), University of Bath, UK
Diplôme d'Études en Langue Française, Université Catholique de Louvain, Belgium

Key Skills Summary (Colours for Cross-Reference)

- Project management, leadership, multi-disciplinary teamwork and international collaboration
- Programming proficiency in Python 2/3, Bash and LaTeX languages; computer and numerical literacy.
- Persuasive writing and critical thinking linked to successful project proposals and funding applications.
- Control of Substances Hazardous to Health (COSHH), risk assessment and lab management.
- Budget management, resource allocation and account keeping.
- Peer-review, public engagement, open-access data dissemination.
- Visualisation software, image rendering and data plotting.
- Teaching, lecturing, presenting, online recording and teleconferencing.

Employment History

Feb. 2019 to Present – Associate Professor, Shanghai University, China.

- Tenured faculty position in the Dept. of Physics and guest lecturer in the Dept. of International Development.
- Recipient of Shanghai Eastern Young Scholar early career fellowship, 2018.
- Recipient of the Chinese National Science Foundation International Young Scientist Award, 2019
- (Co-)supervisor of 1 PhD student, 4 graduate students, 2 research interns currently.
- More than 100 lecturing hours to date with graduate and undergraduate students.
- Invited speaker at two international conferences and one international workshop.
- Tutorial leader at the 2019 Jiangsu mathematics & computing in materials design graduate summer school.
- Recipient of the Royal Society of Chemistry (UK) Research Fund, 2020.
- One (Chinese) group member to date offered fully-funded international PhD scholarships (at NYU, USA).
- 5 research articles published so far, including one listed as most popular for the respective journal in 2020.
- 2 research articles selected as cover features for J. Mat. Chem. C. and J. Phys. Chem. Lett.
- Open and well-maintained group GitHub page, including supplementary data and codes for published work.
- Established industrial partnership with Fish in a Bottle Limited, a digital production studio in the UK.

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Dec. 2016 to Feb. 2019 – Research Fellow, Université Catholique de Louvain, Belgium.

- Recipient of “Move-In Louvain” research fellowship funded by the EU Marie-Curie actions.
- Recipient of the European Commission Seal of Excellence award 2018.
- Lead researcher on (confidential) research project with Toyota Motor Corporation.
- Invited speaker & session chair at European Materials Research Society (E-MRS) Meetings 2017 & 2018.
- 2 international patents granted, contribution purchased by Panasonic Corporation.
- Tutorial leader on database querying & high-throughput screening at Materials Research Society (MRS) Spring Meeting, USA, 2018.

Nov. 2014 to Nov. 2016 – Research Fellow, Tokyo Institute of Technology, Japan.

- Royal Society nominee for fully funded Japanese Society for Promotion of Science (JSPS) fellowship.
- Equal shareholder on international patent for 11 novel semiconductors (number WO/2017/065294).
- Speaker at four international conferences and invited contribution to international workshop.
- 5 research articles published in high impact journals including Nature Comms. and Phys. Rev. Lett.
- Volunteer participant of JSPS Science Dialogue program: lecturing at senior high schools (ages 15-17).

Oct. 2010 to Oct. 2014 – Doctoral Student, University of Bath, UK.

- Multi-disciplinary PhD funded by Engineering and Physical Sciences Research Council scholarship.
- Laboratory custodian of Solar Instrument Room, Department of Chemistry.
 - Developed control and safety standards for contemporary lab space.
 - Implemented training and operating protocols for hazardous experimental procedures.
- Public engagement and ambassadorial roles for the Centre for Sustainable Chemical Technologies.
 - Elected Ambassador to the UK Energy Research Network for the Bath graduate school.
 - Theme leader of ‘Planet Earth’ section, Bath chapter, for international science festival ‘Pint of Science’.
 - Invited speaker for the British Science Association’s ‘Science Café’ public presentation.
 - University of Bath STEM (Science, Technology, Engineering and Mathematics) ambassador.
- Taught-lab demonstrator and part-time teaching assistant.
- Over 2,000 GBP in external grant money and bursary awards.

Nov. 2013 to Apr. 2014 – Conference Committee Member, Royal Society of Chemistry, UK.

- Organising committee member for the RSC, Solid State Group Easter Meeting, Buckinghamshire, UK.
- Responsibilities included: budget allocations, costing, talk selection and program design.

Jul. 2013 to Dec. 2013 – Visiting Scholar, Harvard University, USA.

- Personally established a collaboration between the University of Bath (UK), Harvard University (USA) and the Massachusetts Institute of Technology (USA).
- 2 secondments to Harvard University, regular teleconferencing and confidential data handling.

Oct. 2010 to Sep. 2011 – Master of Research, University of Bath, UK.

- Degree with taught courses and 2 research projects:
 - Computer modelling of battery cathodes with Prof. Saiful Islam in the Dept. of Chemistry.
 - Gas adsorption analysis of hydrogen storage materials with Prof. Tim Mays in the Dept of Chem. Eng.

Apr. 2009 to Sep. 2009 – Research Intern, University of Tasmania, Australia.

- Designed and built a 2-D gas chromatography suite to analyse oil spills for the Australian Antarctic Division.

Suggested Referees

Professor Aron Walsh,
(PhD Supervisor)
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Professor Fumiyasu Oba
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Professor Jeffrey Reimers
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