

Jamie Michael Foster

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

1,965
citations

516710

16
h-index

501196

28
g-index

30
all docs

30
docs citations

30
times ranked

3362
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Understanding rapid charge and discharge in nano-structured lithium iron phosphate cathodes. European Journal of Applied Mathematics, 2022, 33, 328-368. | 2.9 | 6 |
| 2 | Charge transport modelling of Lithium-ion batteries. European Journal of Applied Mathematics, 2022, 33, 983-1031. | 2.9 | 9 |
| 3 | Review of parameterisation and a novel database (LiionDB) for continuum Li-ion battery models. Progress in Energy, 2022, 4, 032004. | 10.9 | 35 |
| 4 | A continuum of physics-based lithium-ion battery models reviewed. Progress in Energy, 2022, 4, 042003. | 10.9 | 30 |
| 5 | A Shrinking-Core Model for the Degradation of High-Nickel Cathodes (NMC811) in Li-Ion Batteries: Passivation Layer Growth and Oxygen Evolution. Journal of the Electrochemical Society, 2021, 168, 020509. | 2.9 | 23 |
| 6 | Dandelion v1: An Extremely Fast Solver for the Newman Model of Lithium-Ion Battery (Dis)charge. Journal of the Electrochemical Society, 2021, 168, 060544. | 2.9 | 18 |
| 7 | BESLE: Boundary element software for 3D linear elasticity. Computer Physics Communications, 2021, 265, 108009. | 7.5 | 3 |
| 8 | Parametrisation and Use of a Predictive DFN Model for a High-Energy NCA/Gr-SiOx Battery. Journal of the Electrochemical Society, 2021, 168, 120522. | 2.9 | 13 |
| 9 | Deducing transport properties of mobile vacancies from perovskite solar cell characteristics. Journal of Applied Physics, 2020, 128, . | 2.5 | 25 |
| 10 | Demand Response Model Development for Smart Households Using Time of Use Tariffs and Optimal Control – The Isle of Wight Energy Autonomous Community Case Study. Energies, 2020, 13, 541. | 3.1 | 11 |
| 11 | Discerning models of phase transformations in porous graphite electrodes: Insights from inverse modelling based on MRI measurements. Electrochimica Acta, 2020, 349, 136290. | 5.2 | 6 |
| 12 | Extremely Fast Solvers for Newman-Type Models of Li-Ion Cell (dis)Charge. ECS Meeting Abstracts, 2020, MA2020-01, 393-393. | 0.0 | 0 |
| 13 | Systematic derivation of a surface polarisation model for planar perovskite solar cells. European Journal of Applied Mathematics, 2019, 30, 427-457. | 2.9 | 22 |
| 14 | IonMonger: a free and fast planar perovskite solar cell simulator with coupled ion vacancy and charge carrier dynamics. Journal of Computational Electronics, 2019, 18, 1435-1449. | 2.5 | 42 |
| 15 | How transport layer properties affect perovskite solar cell performance: insights from a coupled charge transport/ion migration model. Energy and Environmental Science, 2019, 12, 396-409. | 30.8 | 184 |
| 16 | Incorporating Dendrite Growth into Continuum Models of Electrolytes: Insights from NMR Measurements and Inverse Modeling. Journal of the Electrochemical Society, 2019, 166, A1591-A1602. | 2.9 | 17 |
| 17 | The Effect of Ionic Aggregates on the Transport of Charged Species in Lithium Electrolyte Solutions. Journal of the Electrochemical Society, 2018, 165, H561-H567. | 2.9 | 15 |
| 18 | Operando Mapping of Li Concentration Profiles and Phase Transformations in Graphite Electrodes by Magnetic Resonance Imaging and Nuclear Magnetic Resonance Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 21784-21791. | 3.1 | 47 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Migration of cations induces reversible performance losses over day/night cycling in perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 604-613. | 30.8 | 525 |
| 20 | Measurement and modelling of dark current decay transients in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 452-462. | 5.5 | 64 |
| 21 | Structure Solution of Metal-Oxide Li Battery Cathodes from Simulated Annealing and Lithium NMR Spectroscopy. <i>Chemistry of Materials</i> , 2017, 29, 5550-5557. | 6.7 | 17 |
| 22 | Can slow-moving ions explain hysteresis in the current-voltage curves of perovskite solar cells?. <i>Energy and Environmental Science</i> , 2016, 9, 1476-1485. | 30.8 | 363 |
| 23 | Three-dimensional investigation of cycling-induced microstructural changes in lithium-ion battery cathodes using focused ion beam/scanning electron microscopy. <i>Journal of Power Sources</i> , 2016, 306, 300-308. | 7.8 | 60 |
| 24 | Homogenization Study of the Effects of Cycling on the Electronic Conductivity of Commercial Lithium-Ion Battery Cathodes. <i>Journal of Physical Chemistry C</i> , 2015, 119, 12199-12208. | 3.1 | 10 |
| 25 | Improving the Long-Term Stability of Perovskite Solar Cells with a Porous Al_2O_3 Buffer Layer. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 432-437. | 4.6 | 343 |
| 26 | The halting of contact lines in slender viscous films driven by gravity and surface tension gradients. <i>Physics of Fluids</i> , 2014, 26, 073601. | 4.0 | 1 |
| 27 | A Model for the Operation of Perovskite Based Hybrid Solar Cells: Formulation, Analysis, and Comparison to Experiment. <i>SIAM Journal on Applied Mathematics</i> , 2014, 74, 1935-1966. | 1.8 | 53 |
| 28 | Asymptotic and numerical prediction of current-voltage curves for an organic bilayer solar cell under varying illumination and comparison to the Shockley equivalent circuit. <i>Journal of Applied Physics</i> , 2013, 114, . | 2.5 | 17 |
| 29 | The slow spreading of a viscous fluid film over a deep viscous pool. <i>Journal of Engineering Mathematics</i> , 2011, 71, 393-408. | 1.2 | 1 |
| 30 | On Uncertainty Quantification in the Parametrization of Newman-Type Models of Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 0, , . | 2.9 | 5 |