Jamie Michael Foster

List of Publications by Year
in descending order

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	Migration of cations induces reversible performance losses over day/night cycling in perovskite solar cells. Energy and Environmental Science, 2017, 10, 604-613.	30.8	525
2	Can slow-moving ions explain hysteresis in the currentâ€“voltage curves of perovskite solar cells?. Energy and Environmental Science, 2016, 9, 1476-1485.	30.8	363
3	Improving the Long-Term Stability of Perovskite Solar Cells with a Porous Al₂O₃ Buffer Layer. Journal of Physical Chemistry Letters, 2015, 6, 432-437.	4.6	343
4	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
5	Measurement and modelling of dark current decay transients in perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 452-462.	5.5	64
6	Three-dimensional investigation of cycling-induced microstructural changes in lithium-ion battery cathodes using focused ion beam/scanning electron microscopy. Journal of Power Sources, 2016, 306, 300-308.	7.8	60
7	A Model for the Operation of Perovskite Based Hybrid Solar Cells: Formulation, Analysis, and Comparison to Experiment. SIAM Journal on Applied Mathematics, 2014, 74, 1935-1966.	1.8	53
8	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
9	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
10	Review of parameterisation and a novel database (LiionDB) for continuum Li-ion battery models. Progress in Energy, 2022, 4, 032004.	10.9	35
11	A continuum of physics-based lithium-ion battery models reviewed. Progress in Energy, 2022, 4, 042003.	10.9	30
12	Deducing transport properties of mobile vacancies from perovskite solar cell characteristics. Journal of Applied Physics, 2020, 128, .	2.5	25
13	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
14	Systematic derivation of a surface polarisation model for planar perovskite solar cells. European Journal of Applied Mathematics, 2019, 30, 427-457.	2.9	22
15	DandeLiion 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
16	Asymptotic and numerical prediction of current-voltage curves for an organic bilayer solar cell under varying illumination and comparison to the Shockley equivalent circuit. Journal of Applied Physics, 2013, 114, .	2.5	17
17	Structure Solution of Metal-Oxide Li Battery Cathodes from Simulated Annealing and Lithium NMR Spectroscopy. Chemistry of Materials, 2017, 29, 5550-5557.	6.7	17
18	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

#	Article	IF	Citations
19	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
20	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
21	Demand Response Model Development for Smart Households Using Time of Use Tariffs and Optimal Controlâ€"The Isle of Wight Energy Autonomous Community Case Study. Energies, 2020, 13, 541.	3.1	11
22	Homogenization Study of the Effects of Cycling on the Electronic Conductivity of Commercial Lithium-Ion Battery Cathodes. Journal of Physical Chemistry C, 2015, 119, 12199-12208.	3.1	10
23	Charge transport modelling of Lithium-ion batteries. European Journal of Applied Mathematics, 2022, 33, 983-1031.	2.9	9
24	Understanding rapid charge and discharge in nano-structured lithium iron phosphate cathodes. European Journal of Applied Mathematics, 2022, 33, 328-368.	2.9	6
25	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
26	On Uncertainty Quantification in the Parametrization of Newman-Type Models of Lithium-Ion Batteries. Journal of the Electrochemical Society, 0, , .	2.9	5
27	BESLE: Boundary element software for 3D linear elasticity. Computer Physics Communications, 2021, 265, 108009.	7.5	3
28	The slow spreading of a viscous fluid film over a deep viscous pool. Journal of Engineering Mathematics, 2011, 71, 393-408.	1.2	1
29	The halting of contact lines in slender viscous films driven by gravity and surface tension gradients. Physics of Fluids, 2014, 26, 073601.	4.0	1
30	Extremely Fast Solvers for Newman-Type Models of Li-Ion Cell (dis)Charge. ECS Meeting Abstracts, 2020, MA2020-01, 393-393.	0.0	0