Steven Hepplestone

List of Publications by Year
in descending order

29	329	759233	839539
papers	citations	12 h-index	18 g-index

29	29	29	495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Strain-engineered inverse charge-funnelling in layered semiconductors. Nature Communications, 2018, 9, 1652.	12.8	36
2	Hypersonic Modes in Nanophononic Semiconductors. Physical Review Letters, 2008, 101, 105502.	7.8	33
3	Theory of interface scattering of phonons in superlattices. Physical Review B, 2010, 82, .	3.2	31
4	Transport behavior of holes in boron delta-doped diamond structures. Journal of Applied Physics, 2013, 113, .	2.5	28
5	Lattice dynamics of silicon nanostructures. Nanotechnology, 2006, 17, 3288-3298.	2.6	25
6	Band alignment of transition metal dichalcogenide heterostructures. Physical Review B, 2021, 103, .	3.2	25
7	The Fundamental Mechanism Behind Colossal Permittivity in Oxides. Advanced Materials, 2019, 31, e1904746.	21.0	21
8	Lattice dynamics and thermal properties of phononic semiconductors. Physical Review B, 2011, 84, .	3.2	20
9	ARTEMIS: Ab initio restructuring tool enabling the modelling of interface structures. Computer Physics Communications, 2020, 257, 107515.	7.5	20
10	Lattice dynamics of ultrasmall silicon nanostructures. Applied Physics Letters, 2005, 87, 231906.	3.3	16
11	Phononic gaps in thin semiconductor superlattices. Journal of Applied Physics, 2010, 107, 043504.	2.5	12
12	First-principles structure determination of interface materials: The<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mtext>Ni</mml:mtext><mml:mi>x</mml:mi></ Physical Review B, 2015, 92, .	3.2	12
13	Multi-scale simulations of a Mo/n⁺â€“GaAs Schottky contact for nano-scale IIIâ€“V MOSFETs. Semiconductor Science and Technology, 2014, 29, 054003.	2.0	8
14	Effect of metal intermixing on the Schottky barriers of Mo(100)/GaAs(100) interfaces. Journal of Applied Physics, 2014, 116, 193703.	2.5	7
15	The lattice dynamics of rectangular silicon nanowires. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2617-2620.	0.8	5
16	First principles electronic and elastic properties of fresnoite Ba₂TiSi₂O₈. Materials Research Express, 2017, 4, 125904.	1.6	5
17	Coupling and confinement of current in thermoacoustic phased arrays. Science Advances, 2020, 6, eabb2752.	10.3	5
18	Dominance of Interface Chemistry over the Bulk Properties in Determining the Electronic Structure of Epitaxial Metal/Perovskite Oxide Heterojunctions. Chemistry of Materials, 2015, 27, 4093-4098.	6.7	4

#	Article	IF	Citations
19	Solvothermal synthesis of Sn₃N₄ as a high capacity sodium-ion anode: theoretical and experimental study of its storage mechanism. Journal of Materials Chemistry A, 2020, 8, 16437-16450.	10.3	4
20	The Potential of Overlayers on Tin-based Perovskites for Water Splitting. Journal of Physical Chemistry Letters, 2020, 11, 4124-4130.	4.6	4
21	Computational analysis of the enhancement of photoelectrolysis using transition metal dichalcogenide heterostructures. Journal of Physics Condensed Matter, 2022, 34, 375001.	1.8	3
22	Multi-scale Simulations of Metal-Semiconductor Nanoscale Contacts. Journal of Physics: Conference Series, 2015, 647, 012030.	0.4	2
23	Calcium-stannous oxide solid solutions for solar devices. Applied Physics Letters, 2020, 117, .	3.3	2
24	Multi-Scale Simulation of Transport via a Mo/n+-GaAs Schottky Contact. Materials Research Society Symposia Proceedings, 2013, 1553, 1.	0.1	1
25	Atomic Theory Of Phononic Gaps In Nano-patterned Semiconductors. , 2009, , .		0
26	Anharmonic Lifetime of Phonons in Nanophononic Semiconductors. Materials Research Society Symposia Proceedings, 2009, 1172, 26.	0.1	0
27	Multi-scale simulations of metal-semiconductor contacts for nano-MOSFETs. , 2014, , .		0
28	Colossal Permittivity: The Fundamental Mechanism Behind Colossal Permittivity in Oxides (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10	21.0	0
29	2D hybrid perovskite for light sensing. , 0, , .		0