Budhika G Mendis

List of Publications by Year
in descending order

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42	878	567281	477307
papers	citations	15 h-index	29 g-index

43	43	43	1387
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantum theory of magnon excitation by high energy electron beams. Ultramicroscopy, 2022, 239, 113548.	1.9	7
2	Removal of core hole distortion from ionization edges in electron energy loss spectroscopy. Physical Review B, 2021, 103, .	3.2	4
3	A semi-classical theory of magnetic inelastic scattering in transmission electron energy loss spectroscopy. Ultramicroscopy, 2021, 230, 113390.	1.9	5
4	Differing Impacts of Blended Fullerene Acceptors on the Performance of Ternary Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 10867-10876.	5.1	1
5	Microscopic Analysis of Interdiffusion and Void Formation in CdTe_(1â€“x)Se_xand CdTe Layers. ACS Applied Materials & Interfaces, 2020, 12, 38070-38075.	8.0	18
6	Angular dependence of fast-electron scattering from materials. Physical Review B, 2020, 101, .	3.2	16
7	Corrigendum to: â€œAn inelastic multislice simulation method incorporating plasmon energy lossesâ€• [Ultramicroscopy 206 (2019) 112816]. Ultramicroscopy, 2020, 212, 112957.	1.9	1
8	Theory underpinning multislice simulations with plasmon energy losses. Microscopy (Oxford,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462	1.5	7
9	Evidence for Self-healing Benign Grain Boundaries and a Highly Defective Sb₂Se₃â€“CdS Interfacial Layer in Sb₂Se₃ Thin-Film Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 21730-21738.	8.0	57
10	Inelastic Scattering in Electron Backscatter Diffraction and Electron Channeling Contrast Imaging. Microscopy and Microanalysis, 2020, 26, 1147-1157.	0.4	3
11	An inelastic multislice simulation method incorporating plasmon energy losses. Ultramicroscopy, 2019, 206, 112816.	1.9	24
12	Optical Properties and Dielectric Functions of Grain Boundaries and Interfaces in CdTe Thin-Film Solar Cells. ACS Applied Energy Materials, 2019, 2, 1419-1427.	5.1	15
13	Planck's generalised radiation law and its implications for cathodoluminescence spectra. Ultramicroscopy, 2019, 204, 73-80.	1.9	6
14	Understanding the role of selenium in defect passivation for highly efficient selenium-alloyed cadmium telluride solar cells. Nature Energy, 2019, 4, 504-511.	39.5	145
15	Fully depleted emitter layers: a novel method to improve band alignment in thin-film solar cells. Semiconductor Science and Technology, 2019, 34, 055008.	2.0	2
16	Nanometre-scale optical property fluctuations in Cu2ZnSnS4 revealed by low temperature cathodoluminescence. Solar Energy Materials and Solar Cells, 2018, 174, 65-76.	6.2	18
17	Crystal structure and anti-site boundary defect characterisation of Cu₂ZnSnSe₄. Journal of Materials Chemistry A, 2018, 6, 189-197.	10.3	11
18	Fixation of atmospheric nitrogen by nanodiamonds. New Journal of Chemistry, 2018, 42, 11160-11164.	2.8	4

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19	The role of transition radiation in cathodoluminescence imaging and spectroscopy of thin-foils. Ultramicroscopy, 2016, 167, 31-42.	1.9	10
20	On the nature of fibres grown from nanodiamond colloids. Materials Chemistry and Physics, 2016, 173, 325-332.	4.0	12
21	Long Lifetime Hole Traps at Grain Boundaries in CdTe Thin-Film Photovoltaics. Physical Review Letters, 2015, 115, 218701.	7.8	17
22	Examining charge transport networks in organic bulk heterojunction photovoltaic diodes using 1/f noise spectroscopy. Journal of Materials Chemistry C, 2015, 3, 6077-6085.	5.5	4
23	Dynamic scattering of electron vortex beams â€“ A Bloch wave analysis. Ultramicroscopy, 2015, 149, 74-85.	1.9	10
24	A comparative study of microstructural stability and sulphur diffusion in CdS/CdTe photovoltaic devices. Solar Energy Materials and Solar Cells, 2015, 141, 341-349.	6.2	33
25	On the electron vortex beam wavefunction within a crystal. Ultramicroscopy, 2015, 157, 1-11.	1.9	9
26	Synthesis and Properties of Hydrogen-Free Detonation Diamond. Propellants, Explosives, Pyrotechnics, 2015, 40, 39-45.	1.6	18
27	Direct observation of Cu, Zn cation disorder in Cu₂ZnSnS₄ solar cell absorber material using aberration corrected scanning transmission electron microscopy. Progress in Photovoltaics: Research and Applications, 2014, 22, 24-34.	8.1	78
28	The effects of substrate self-biasing on the growth of Sn-catalysed silicon nanowires grown at low pressure. Journal of Materials Science, 2014, 49, 2078-2084.	3.7	3
29	Luminescence of Cu2ZnSnS4 polycrystals described by the fluctuating potential model. Journal of Applied Physics, 2013, 113, .	2.5	45
30	Low pressure plasma assisted silicon nanowire growth from self organised tin catalyst particles. CrystEngComm, 2013, 15, 3808.	2.6	10
31	Plasmon-loss imaging of polymer-methanofullerene bulk heterojunction solar cells. Applied Physics Letters, 2013, 102, .	3.3	6
32	The role of secondary phase precipitation on grain boundary electrical activity in Cu2ZnSnS4 (CZTS) photovoltaic absorber layer material. Journal of Applied Physics, 2012, 112, .	2.5	98
33	Prospects for electron microscopy characterisation of solar cells: Opportunities and challenges. Ultramicroscopy, 2012, 119, 82-96.	1.9	3
34	Giant dielectric permittivity of detonation-produced nanodiamond is caused by water. Journal of Materials Chemistry, 2012, 22, 11166.	6.7	52
35	Simple and scalable route for the â€˜bottom-upâ€™ synthesis of few-layer graphene platelets and thin films. Journal of Materials Chemistry, 2011, 21, 3378.	6.7	56
36	Characterising the surface and interior chemistry of coreâ€“shell nanoparticles using scanning transmission electron microscopy. Ultramicroscopy, 2011, 111, 212-226.	1.9	7

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37	A new analytical method for characterising the bonding environment at rough interfaces in high-k gate stacks using electron energy loss spectroscopy. Ultramicroscopy, 2010, 110, 105-117.	1.9	9
38	Electron beamâ€“specimen interactions and their effect on high-angle annular dark-field imaging of dopant atoms within a crystal. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, 407-420.	0.3	4
39	Evolution of the premartensitic state in the NiAl phase of a NiCoCrAlY bond coat during thermal cycling. Philosophical Magazine, 2007, 87, 4229-4251.	1.6	5
40	Use of the Nye tensor in analyzing HREM images of bcc screw dislocations. Philosophical Magazine, 2006, 86, 4607-4640.	1.6	43
41	HREM imaging of screw dislocation core structures in bcc metals. Materials Research Society Symposia Proceedings, 2004, 839, 42.	0.1	0
42	Surface Core Hole Electron Energy-Loss Fine Structure in MgO: Experiment and Theory. Microscopy and Microanalysis, 0, , 1-12.	0.4	0