

Bruce M Clemens

List of Publications by Year in descending order

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53
papers

1,109
citations

516561

16
h-index

395590

33
g-index

55
all docs

55
docs citations

55
times ranked

2146
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigating the Role of Grain Boundaries in CZTS and CZTSSe Thin Film Solar Cells with Scanning Probe Microscopy. <i>Advanced Materials</i> , 2012, 24, 720-723.	11.1	282
2	Mn ₃ O ₄ Supported on Glassy Carbon: An Active Non-Precious Metal Catalyst for the Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2012, 2, 2687-2694.	5.5	192
3	Nucleation-Controlled Growth of Nanoparticles by Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2012, 24, 4051-4059.	3.2	57
4	Interfacial Alloy Hydride Destabilization in $MgPd$ Thin Films. <i>Physical Review Letters</i> , 2012, 108, 106102.	2.9	43
5	The elastic biaxial modulus of AgPd multilayered thin films measured using the bulge test. <i>Journal of Materials Research</i> , 1994, 9, 25-30.	1.2	41
6	Effect of composition on vacancy mediated diffusion in random binary alloys: First principles study of the Si _{1-x} Gex system. <i>Journal of Applied Physics</i> , 2003, 94, 174-185.	1.1	40
7	Copper Silver Thin Films with Metastable Miscibility for Oxygen Reduction Electrocatalysis in Alkaline Electrolytes. <i>ACS Applied Energy Materials</i> , 2018, 1, 1990-1999.	2.5	40
8	Deep recombination centers in Cu_2ZnSnS_4 revealed by screened-exchange hybrid density functional theory. <i>Physical Review B</i> , 2015, 92, .	1.1	34
9	Laser liftoff of gallium arsenide thin films. <i>MRS Communications</i> , 2015, 5, 1-5.	0.8	30
10	In Situ X-Ray Absorption Spectroscopy Disentangles the Roles of Copper and Silver in a Bimetallic Catalyst for the Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2020, 32, 1819-1827.	3.2	30
11	Microstructural study of epitaxial platinum and Permalloy/platinum films grown on (0001) sapphire. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2001, 81, 2073-2094.	0.7	27
12	Hydrogen Flux through Size Selected Pd Nanoparticles into Underlying Mg Nanofilms. <i>Advanced Energy Materials</i> , 2018, 8, 1701326.	10.2	26
13	Magnetic and structural modifications in Fe and Ni films prepared by ion-assisted deposition. <i>Journal of Applied Physics</i> , 1994, 75, 5644-5646.	1.1	22
14	Development and characterization of high temperature stable TaWSiC amorphous metal gates. <i>Applied Physics Letters</i> , 2010, 97, 223505.	1.5	20
15	Bilayer metal gate electrodes with tunable work function: Mechanism and proposed model. <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	19
16	Copper interstitial recombination centers in Cu_2N . <i>Physical Review B</i> , 2018, 97, .	1.3	18
17	Understanding Degradation Mechanisms in SrIrO ₃ Oxygen Evolution Electrocatalysts: Chemical and Structural Microscopy at the Nanoscale. <i>Advanced Functional Materials</i> , 2021, 31, 2101542.	7.8	16
18	Nanometer-scale hydrogen portals™ for the control of magnesium hydride formation. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28977-28984.	1.3	14

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19	Interfacial Structure and Mechanical Properties of Compositionally-Modulated Au-Ni thin Films. Materials Research Society Symposia Proceedings, 1994, 343, 555.	0.1	13
20	Hydrogenation of Mg nanofilms catalyzed by size-selected Pd nanoparticles: Observation of localized MgH ₂ nanodomains. Journal of Catalysis, 2016, 337, 14-25.	3.1	13
21	Fundamental Aspects of Ion Beam Assisted Deposition of Magnesium Oxide Template Films. IEEE Transactions on Applied Superconductivity, 2009, 19, 3311-3314.	1.1	12
22	Effects of lamination on soft magnetic properties of FeN films on sloping surfaces. Journal of Applied Physics, 1997, 81, 4507-4509.	1.1	11
23	Amorphous thin film TaWSiC as a diffusion barrier for copper interconnects. Applied Physics Letters, 2013, 103, .	1.5	11
24	â€œMigration energyâ€ for impurity diffusion in crystalline solids: A closer look. Journal of Applied Physics, 2004, 96, 7095-7107.	1.1	10
25	Crystallinity, Surface Morphology, and Photoelectrochemical Effects in Conical InP and InN Nanowires Grown on Silicon. ACS Applied Materials & Interfaces, 2016, 8, 21454-21464.	4.0	8
26	Giant Magnetoresistance in Annealed Fe/Cr Multilayers. Materials Research Society Symposia Proceedings, 1993, 313, 197.	0.1	7
27	The Role of Nucleation Surfaces in the Texture Development of Magnesium Oxide During Ion Beam Assisted Deposition. IEEE Transactions on Applied Superconductivity, 2011, 21, 2904-2907.	1.1	7
28	Mechanical Properties of Ag/Cr Multilayered Epitaxial thin Films. Materials Research Society Symposia Proceedings, 1994, 356, 363.	0.1	6
29	Stress Evolution During Growth of Sputtered Ni/Cu Multilayers. Materials Research Society Symposia Proceedings, 1998, 528, 161.	0.1	6
30	Photoelectrochemical Water Oxidation by GaAs Nanowire Arrays Protected with Atomic Layer Deposited NiO x Electrocatalysts. Journal of Electronic Materials, 2018, 47, 932-937.	1.0	6
31	In-Situ Observation of Stress in Cu/Pd Multilayers. Materials Research Society Symposia Proceedings, 1995, 382, 279.	0.1	5
32	Adventures with a Flipped Classroom and a Materials Science and Engineering MOOC : â€œFools Go Where Angels Fear to Treadâ€ Materials Research Society Symposia Proceedings, 2013, 1583, 1.	0.1	5
33	Stress Evolution In Sputtered Fcc Metal Multilayers. Materials Research Society Symposia Proceedings, 1997, 505, 589.	0.1	4
34	Biaxial Texturing of Inorganic Photovoltaic Thin Films Using Low Energy Ion Beam Irradiation During Growth. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	4
35	Threshold Fluence Measurement for Laser Liftoff of InP Thin Films by Selective Absorption. Advanced Engineering Materials, 2018, 20, 1700624.	1.6	4
36	Theory and Experiments of the Impact of Work-Function Variability on Threshold Voltage Variability in MOS Devices. IEEE Transactions on Electron Devices, 2012, 59, 3124-3126.	1.6	3

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37	Rapid liftoff of epitaxial thin films. <i>Journal of Materials Research</i> , 2013, 28, 2564-2569.	1.2	3
38	The Role of Next-Nearest Neighbors in The Neel Model of Surface Anisotropy for BCC Crystals. <i>Materials Research Society Symposia Proceedings</i> , 1991, 231, 453.	0.1	2
39	In-Situ Observation of The Initial Stages of Co (0001) Epitaxy on Pt (111) Using Grazing Incidence X-Ray Diffraction. <i>Materials Research Society Symposia Proceedings</i> , 1993, 312, 291.	0.1	2
40	Structural Characterization of Pt/Co Multilayers for Magneto-optic Recording Using X-Ray Diffraction. <i>Materials Research Society Symposia Proceedings</i> , 1993, 313, 799.	0.1	2
41	Magnetic and Magneto-Optic Properties of PtFe (001) and PtCo (001) Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1993, 313, 805.	0.1	2
42	The Role of Metal Catalyst in Near Ambient Hydrogen Adsorption on Multi-walled Carbon Nanotubes. <i>Materials Research Society Symposia Proceedings</i> , 2004, 837, 51.	0.1	2
43	Investigation of Early Nucleation Events in Magnesium Oxide During Ion Beam Assisted Deposition. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1150, 1.	0.1	2
44	Structural Properties of Anisotropic PtCo(001) and PtFe(001) Thin Films on MgO(001). <i>Materials Research Society Symposia Proceedings</i> , 1993, 311, 9.	0.1	1
45	Magnetic Anisotropy and Rotational Hysteresis Loss in Epitaxial TbFe ₂ (110) Films. <i>Materials Research Society Symposia Proceedings</i> , 1997, 475, 321.	0.1	1
46	Ion-beam Texturing at Nucleation – Manipulation of Crystallographic Orientation in Cubic Materials at the Nanometer Scale. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1181, 66.	0.1	1
47	Optimization of Ion Assist Beam Deposition of Magnesium Oxide Template Films During Initial Nucleation and Growth. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1254, 510.	0.1	1
48	Understanding the role of grain boundaries in sulfide thin film solar cells with scanning probe microscopy. , 2012, , .		1
49	Hydrogen Storage: Hydrogen Flux through Size Selected Pd Nanoparticles into Underlying Mg Nanofilms (<i>Adv. Energy Mater.</i> 4/2018). <i>Advanced Energy Materials</i> , 2018, 8, 1870016.	10.2	1
50	Structure and Magnetic Properties of Fe/Zr Multilayer Films. <i>Materials Research Society Symposia Proceedings</i> , 1993, 313, 731.	0.1	0
51	Multilayer Materials for Electrostatic Switches. <i>Materials Research Society Symposia Proceedings</i> , 2000, 657, 511.	0.1	0
52	The Strain-Assisted Nucleation and Growth Behavior of Co Islands: An Indirect Study of Nanopatterning Using the Remanent Magnetization Measurement (I^*m). <i>Materials Research Society Symposia Proceedings</i> , 2004, 818, 281.	0.1	0
53	Modeling the Performance of Biaxially-Textured Silicon Solar Cells. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1670, 36.	0.1	0