

Philip A Parilla

List of Publications by Year in descending order

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46
papers

1,723
citations

279798

23
h-index

276875

41
g-index

47
all docs

47
docs citations

47
times ranked

3367
citing authors

#	ARTICLE	IF	CITATIONS
1	Measuring the crystallinity index of cellulose by solid state ^{13}C nuclear magnetic resonance. <i>Cellulose</i> , 2009, 16, 641-647.	4.9	207
2	Record High Hydrogen Storage Capacity in the Metal-Organic Framework $\text{Ni}_2(\text{im-dobdc})$ at Near-Ambient Temperatures. <i>Chemistry of Materials</i> , 2018, 30, 8179-8189.	6.7	182
3	Electronic Structure and Optical Properties of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Perovskite Single Crystal. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4304-4308.	4.6	136
4	Control of the Electrical Properties in Spinel Oxides by Manipulating the Cation Disorder. <i>Advanced Functional Materials</i> , 2014, 24, 610-618.	14.9	109
5	The formation mechanism for printed silver-contacts for silicon solar cells. <i>Nature Communications</i> , 2016, 7, 11143.	12.8	106
6	Cu-In-Ga-Se nanoparticle colloids as spray deposition precursors for $\text{Cu}(\text{In}, \text{Ga})\text{Se}_2$ solar cell materials. <i>Journal of Electronic Materials</i> , 1998, 27, 433-437.	2.2	82
7	Formation of Nanooctahedra in Molybdenum Disulfide and Molybdenum Diselenide Using Pulsed Laser Vaporization. <i>Journal of Physical Chemistry B</i> , 2004, 108, 6197-6207.	2.6	82
8	Fine-Tuning a Robust Metal-Organic Framework toward Enhanced Clean Energy Gas Storage. <i>Journal of the American Chemical Society</i> , 2021, 143, 18838-18843.	13.7	79
9	Nano-Engineered Spacing in Graphene Sheets for Hydrogen Storage. <i>Chemistry of Materials</i> , 2011, 23, 923-925.	6.7	68
10	Effect of extended strain fields on point defect phonon scattering in thermoelectric materials. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19410-19423.	2.8	55
11	Enhanced Electron Mobility Due to Dopant-Defect Pairing in Conductive ZnMgO . <i>Advanced Functional Materials</i> , 2014, 24, 2875-2882.	14.9	49
12	Temperature Coefficients of Perovskite Photovoltaics for Energy Yield Calculations. <i>ACS Energy Letters</i> , 2021, 6, 2038-2047.	17.4	43
13	Continuous Hot Wire Chemical Vapor Deposition of High-Density Carbon Multiwall Nanotubes. <i>Nano Letters</i> , 2003, 3, 1425-1429.	9.1	38
14	Highly-Tunable Nickel Cobalt Oxide as a Low-Temperature p-Type Contact in Organic Photovoltaic Devices. <i>Advanced Energy Materials</i> , 2013, 3, 524-531.	19.5	38
15	Thermoelectric properties of bromine filled CoSb_3 skutterudite. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8444-8450.	10.3	36
16	Development and application of an instrument for spatially resolved Seebeck coefficient measurements. <i>Review of Scientific Instruments</i> , 2013, 84, 053905.	1.3	34
17	Negative-pressure polymorphs made by heterostructural alloying. <i>Science Advances</i> , 2018, 4, eaaq1442.	10.3	34
18	Spectroscopic Identification of Hydrogen Spillover Species in Ruthenium-Modified High Surface Area Carbons by Diffuse Reflectance Infrared Fourier Transform Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 26744-26755.	3.1	32

#	ARTICLE	IF	CITATIONS
19	Experimental demonstration of a dispatchable latent heat storage system with aluminum-silicon as a phase change material. Applied Energy, 2018, 230, 1218-1229.	10.1	32
20	Impact of Hole Transport Layer Surface Properties on the Morphology of a Polymer-Fullerene Bulk Heterojunction. Advanced Energy Materials, 2014, 4, 1301879.	19.5	28
21	Control and elimination of biaxial strain in laser-ablated epitaxial Ba _x Sr _{1-x} TiO ₃ films. Applied Physics Letters, 2000, 77, 3278-3280.	3.3	26
22	An International Laboratory Comparison Study of Volumetric and Gravimetric Hydrogen Adsorption Measurements. ChemPhysChem, 2019, 20, 1997-2009.	2.1	26
23	Recommended volumetric capacity definitions and protocols for accurate, standardized and unambiguous metrics for hydrogen storage materials. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	25
24	Pulsed laser deposition of oriented V ₂ O ₅ thin films. Journal of Materials Research, 2000, 15, 2249-2265.	2.6	21
25	An international multi-laboratory investigation of carbon-based hydrogen sorbent materials. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	20
26	Performance and reliability of In ₂ -Ga ₂ O ₃ Schottky barrier diodes at high temperature. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	19
27	Combinatorial Growth and Analysis of the Transparent Conducting Oxide ZnO/In(IZO). Macromolecular Rapid Communications, 2004, 25, 344-347.	3.9	17
28	Rapid thermal processing chamber for <i>in-situ</i> x-ray diffraction. Review of Scientific Instruments, 2015, 86, 013902.	1.3	15
29	Solubility limits in quaternary SnTe-based alloys. RSC Advances, 2017, 7, 24747-24753.	3.6	14
30	HIGH-SURFACE-AREA BIOCARBONS FOR REVERSIBLE ON-BOARD STORAGE OF NATURAL GAS AND HYDROGEN. Materials Research Society Symposia Proceedings, 2007, 1041, 1.	0.1	10
31	Atmospheric pressure synthesis of In ₂ Se ₃ , Cu ₂ Se, and CuInSe ₂ without external selenization from solution precursors. Journal of Materials Research, 2009, 24, 1375-1387.	2.6	9
32	Reliability and heat transfer performance of a miniature high-temperature thermosyphon-based thermal valve. International Journal of Heat and Mass Transfer, 2018, 125, 1079-1086.	4.8	7
33	Techno-economic analysis of a small scale solar power tower at varied locations. AIP Conference Proceedings, 2018, , .	0.4	6
34	Conduction and rectification in NbO _x - and NiO-based metal-insulator-metal diodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	5
35	Experimental demonstration of a latent heat storage system for dispatchable electricity. AIP Conference Proceedings, 2018, , .	0.4	5
36	Pulsed Laser Deposition of Cadmium Stannate, a Spinel-Type Transparent Conducting Oxide. Materials Research Society Symposia Proceedings, 1995, 388, 51.	0.1	4

#	ARTICLE	IF	CITATIONS
37	Metal-insulator-metal point-contact diodes as a rectifier for rectenna. , 2010, , .		4
38	A novel way to characterize Metal-Insulator-Metal devices via nanoindentation. , 2011, , .		4
39	Electromechanical tuning of nanoscale MIM diodes by nanoindentation. Journal of Materials Research, 2013, 28, 1912-1919.	2.6	4
40	Li Ion diffusion measurements in crystalline and amorphous V2O5 thin-film battery cathodes. Materials Research Society Symposia Proceedings, 1999, 575, 103.	0.1	3
41	Adsorption of Hydrogen on Carbon Single-Walled Nanotubes as Measured by the Volumetric Technique. Materials Research Society Symposia Proceedings, 2000, 633, 14361.	0.1	2
42	Reactions and reversible hydrogenation of single-walled carbon nanotube anions. Journal of Materials Research, 2012, 27, 2806-2811.	2.6	2
43	Combinatorial approach to correlations of properties in copper nitride. , 2013, , .		2
44	Processing-phase diagrams: a new tool for solution-deposited thin-film development applied to the In5O(OPri)13â€“In2O3 system. Journal of Materials Chemistry C, 2014, 2, 2360.	5.5	2
45	Doped Bi-Se thin films for photovoltaic applications. , 2010, , .		1
46	Novel Organometallic Fullerene Complexes for Vehicular Hydrogen Storage. Materials Research Society Symposia Proceedings, 2007, 1041, 1.	0.1	0