

Sarah J McCormack

List of Publications by Year in descending order

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58
papers

4,235
citations

201385

27
h-index

174990

52
g-index

59
all docs

59
docs citations

59
times ranked

3927
citing authors

#	ARTICLE	IF	CITATIONS
1	Luminescent Solar Concentrators - A review of recent results. Optics Express, 2008, 16, 21773.	1.7	442
2	Evaluation of phase change materials for thermal regulation enhancement of building integrated photovoltaics. Solar Energy, 2010, 84, 1601-1612.	2.9	368
3	Measured performance of a 1.72kW rooftop grid connected photovoltaic system in Ireland. Energy Conversion and Management, 2011, 52, 816-825.	4.4	354
4	Enhancing the performance of building integrated photovoltaics. Solar Energy, 2011, 85, 1629-1664.	2.9	274
5	Phase change materials for photovoltaic thermal management. Renewable and Sustainable Energy Reviews, 2015, 47, 762-782.	8.2	230
6	Thermal energy storage in building integrated thermal systems: A review. Part 1. active storage systems. Renewable Energy, 2016, 88, 526-547.	4.3	230
7	Thermal energy storage in building integrated thermal systems: A review. Part 2. Integration as passive system. Renewable Energy, 2016, 85, 1334-1356.	4.3	208
8	Comparative field performance study of flat plate and heat pipe evacuated tube collectors (ETCs) for domestic water heating systems in a temperate climate. Energy, 2011, 36, 3370-3378.	4.5	179
9	Increased photovoltaic performance through temperature regulation by phase change materials: Materials comparison in different climates. Solar Energy, 2015, 115, 264-276.	2.9	172
10	Heat retention of a photovoltaic/thermal collector with PCM. Solar Energy, 2016, 133, 533-548.	2.9	171
11	Energy and Cost Saving of a Photovoltaic-Phase Change Materials (PV-PCM) System through Temperature Regulation and Performance Enhancement of Photovoltaics. Energies, 2014, 7, 1318-1331.	1.6	162
12	Characterization of phase change materials for thermal control of photovoltaics using Differential Scanning Calorimetry and Temperature History Method. Energy Conversion and Management, 2014, 81, 322-329.	4.4	134
13	Validated TRNSYS model for forced circulation solar water heating systems with flat plate and heat pipe evacuated tube collectors. Applied Thermal Engineering, 2011, 31, 1536-1542.	3.0	125
14	Efficient energy storage technologies for photovoltaic systems. Solar Energy, 2019, 192, 144-168.	2.9	103
15	An overview of various configurations of Luminescent Solar Concentrators for photovoltaic applications. Optical Materials, 2019, 91, 212-227.	1.7	102
16	Transparent patch antenna on a-Si thin-film glass solar module. Electronics Letters, 2011, 47, 85.	0.5	84
17	Integration of Microstrip Patch Antenna With Polycrystalline Silicon Solar Cell. IEEE Transactions on Antennas and Propagation, 2009, 57, 3969-3972.	3.1	83
18	Microencapsulated phase change slurries for thermal energy storage in a residential solar energy system. Renewable Energy, 2011, 36, 2932-2939.	4.3	72

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19	Validated real-time energy models for small-scale grid-connected PV-systems. <i>Energy</i> , 2010, 35, 4086-4091.	4.5	57
20	Increased short-circuit current density and external quantum efficiency of silicon and dye sensitised solar cells through plasmonic luminescent down-shifting layers. <i>Solar Energy</i> , 2016, 126, 146-155.	2.9	53
21	Improving the optical efficiency and concentration of a single-plate quantum dot solar concentrator using near infra-red emitting quantum dots. <i>Solar Energy</i> , 2009, 83, 978-981.	2.9	51
22	Investigation of the corrosive properties of phase change materials in contact with metals and plastic. <i>Renewable Energy</i> , 2017, 108, 555-568.	4.3	50
23	Adapting Stand-Alone Renewable Energy Technologies for the Circular Economy through Eco-Design and Recycling. <i>Journal of Industrial Ecology</i> , 2019, 23, 133-140.	2.8	49
24	Review and analysis of solar thermal facades. <i>Solar Energy</i> , 2016, 135, 408-422.	2.9	45
25	Assessing the Thermal Performance of Phase Change Material in a Photovoltaic/Thermal System. <i>Energy Procedia</i> , 2016, 91, 113-121.	1.8	44
26	Performance of a campus photovoltaic electric vehicle charging station in a temperate climate. <i>Solar Energy</i> , 2019, 177, 762-771.	2.9	41
27	A framework for establishing the technical efficiency of Electricity Distribution Counties (EDCs) using Data Envelopment Analysis. <i>Energy Conversion and Management</i> , 2015, 94, 112-123.	4.4	31
28	Development and testing of low spatial frequency holographic concentrator elements for collection of solar energy. <i>Solar Energy</i> , 2017, 155, 103-109.	2.9	27
29	Projected costs of a grid-connected domestic PV system under different scenarios in Ireland, using measured data from a trial installation. <i>Energy Policy</i> , 2010, 38, 3731-3743.	4.2	26
30	Parametric investigation of concrete solar collectors for facade integration. <i>Solar Energy</i> , 2017, 153, 396-413.	2.9	26
31	Concrete solar collectors for facade integration: An experimental and numerical investigation. <i>Applied Energy</i> , 2017, 206, 1040-1061.	5.1	26
32	Quantum dot solar concentrator: Optical transportation and doping concentration optimization. <i>Solar Energy</i> , 2015, 115, 552-561.	2.9	25
33	Nanofluid Development Using Silver Nanoparticles and Organic-Luminescent Molecules for Solar-Thermal and Hybrid Photovoltaic-Thermal Applications. <i>Nanomaterials</i> , 2020, 10, 1201.	1.9	19
34	Design and experiment of a new solar air heating collector. <i>Energy</i> , 2016, 100, 374-383.	4.5	17
35	Plasmonic luminescent down shifting layers for the enhancement of CdTe mini-modules performance. <i>Solar Energy</i> , 2017, 141, 242-248.	2.9	17
36	Two step continuous method to synthesize colloidal spheroid gold nanorods. <i>Journal of Colloid and Interface Science</i> , 2015, 459, 218-223.	5.0	14

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37	Numerical Simulation of a Novel Dual Layered Phase Change Material Brick Wall for Human Comfort in Hot and Cold Climatic Conditions. <i>Energies</i> , 2021, 14, 4032.	1.6	14
38	A microstrip printed dipole solar antenna using polycrystalline silicon solar cells. , 2008, , .		11
39	Recommending a thermal energy benchmark based on CIBSE TM46 for typical college buildings and creating monthly energy models. <i>Energy and Buildings</i> , 2018, 176, 296-309.	3.1	11
40	Emitter-wrap-through photovoltaic dipole antenna with solar concentrator. <i>Electronics Letters</i> , 2009, 45, 241.	0.5	10
41	Unified Methodology for Fabrication and Quantification of Gold Nanorods, Gold Core Silver Shell Nanocuboids, and Their Polymer Nanocomposites. <i>Langmuir</i> , 2019, 35, 13011-13019.	1.6	10
42	A simple and effective grid-supporting low voltage ride-through scheme for single-stage photovoltaic power plants. <i>Solar Energy</i> , 2022, 232, 248-262.	2.9	10
43	Small and large scale plasmonically enhanced luminescent solar concentrator for photovoltaic applications: modelling, optimisation and sensitivity analysis. <i>Optics Express</i> , 2021, 29, 15031.	1.7	8
44	Quantum dot solar concentrators: an investigation of various geometries. <i>Proceedings of SPIE</i> , 2007, , .	0.8	7
45	Influence of solar heating on the performance of integrated solar cell microstrip patch antennas. <i>Solar Energy</i> , 2010, 84, 1619-1627.	2.9	6
46	Combined Experimental and Modeling Analysis for the Development of Optical Materials Suitable to Enhance the Implementation of Plasmonic-Enhanced Luminescent Down-Shifting Solutions on Existing Silicon-Based Photovoltaic Devices. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2512-2525.	2.0	6
47	Parametric Analysis of Concrete Solar Collectors. <i>Energy Procedia</i> , 2016, 91, 954-962.	1.8	5
48	A metal plate solar antenna for UMTS pico-cell base station. , 2008, , .		4
49	On surface currents in a polycrystalline solar cell acting as ground plane for microstrip patch antennas. , 2008, , .		4
50	A Simplified Procedure for Sizing Solar Thermal Systems; Based on National Assessment Methods in the UK and Ireland. <i>Energy Procedia</i> , 2014, 62, 647-655.	1.8	4
51	A Case for FaÅšade Located Solar Thermal Collectors. <i>Energy Procedia</i> , 2015, 70, 103-110.	1.8	4
52	Monte Carlo Ray Tracing Modelling of Multi-Crystalline Silicon Photovoltaic Device Enhanced by Luminescent Material. , 2018, , .		2
53	Fluorescent organic dyes in a silicone encapsulant composite for Luminescent Solar Concentrators. , 2018, , .		2
54	Optimized 3D Finite-Difference-Time-Domain Algorithm to Model the Plasmonic Properties of Metal Nanoparticles with Near-Unity Accuracy. <i>Chemosensors</i> , 2021, 9, 114.	1.8	2

#	ARTICLE	IF	CITATIONS
55	Study of Corrosion Effect of Micronal [®] Phase Change Materials (PCM) with Different Metal Samples. Innovative Renewable Energy, 2020, , 709-717.	0.2	2
56	The Shadows Cast by Inadequate Energy Governance: Why More Sun Does Not Necessarily Mean More Photovoltaic Electricity. Lecture Notes in Energy, 2013, , 277-293.	0.2	1
57	Outdoor Characterization of a Plasmonic Luminescent Solar Concentrator. Plasmonics, 2022, 17, 725-734.	1.8	1
58	The Battery Energy Storage System (bess) Design Option for On-Campus Photovoltaic Charging Station (PV-CS)., 2016, , .		0