

Roman Bader

List of Publications by Year in descending order

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Version: 2024-02-01

31
papers

1,185
citations

394421

19
h-index

501196

28
g-index

31
all docs

31
docs citations

31
times ranked

933
citing authors

#	ARTICLE	IF	CITATIONS
1	Concentrating collector systems for solar thermal and thermochemical applications. <i>Advances in Chemical Engineering</i> , 2021, 58, 1-53.	0.9	11
2	Thermal Model of a Solar Thermochemical Reactor for Metal Oxide Reduction. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2020, 142, .	1.8	22
3	Optical analysis of a multi-aperture solar central receiver system for high-temperature concentrating solar applications. <i>Optics Express</i> , 2020, 28, 37654.	3.4	9
4	Optical analyses of multi-aperture solar central receiver systems for high-temperature concentrating solar applications. , 2020, , .		0
5	Reflective optics for redirecting convergent radiative beams in concentrating solar applications. <i>Solar Energy</i> , 2019, 191, 707-718.	6.1	12
6	Unsteady Radiative Heat Transfer Model of a Ceria Particle Suspension Undergoing Solar Thermochemical Reduction. <i>Journal of Thermophysics and Heat Transfer</i> , 2019, 33, 63-77.	1.6	9
7	Techno-economic assessment of solid-gas thermochemical energy storage systems for solar thermal power applications. <i>Energy</i> , 2018, 149, 473-484.	8.8	177
8	Thermodynamic Analyses of Fuel Production via Solar-Driven Non-stoichiometric Metal Oxide Redox Cycling. Part 2. Impact of Solid-Gas Flow Configurations and Active Material Composition on System-Level Efficiency. <i>Energy & Fuels</i> , 2018, 32, 10848-10863.	5.1	35
9	Progress in thermal transport modeling of carbonate-based reacting systems. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2017, 27, 1098-1107.	2.8	15
10	High-flux optical systems for solar thermochemistry. <i>Solar Energy</i> , 2017, 156, 133-148.	6.1	52
11	Modelling of solar thermochemical reaction systems. <i>Solar Energy</i> , 2017, 156, 149-168.	6.1	52
12	A Solar Reactor Design for Research on Calcium Oxide-Based Carbon Dioxide Capture. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2017, 139, .	1.8	9
13	High-flux solar simulator technology. , 2016, , .		9
14	Experimental and numerical characterization of a new 45 kW _{el} multisource high-flux solar simulator. <i>Optics Express</i> , 2016, 24, A1360.	3.4	60
15	Solar Thermochemical Processes. <i>World Scientific Series in Current Energy Issues</i> , 2016, , 345-394.	0.1	6
16	Optics of solar central receiver systems: a review. <i>Optics Express</i> , 2016, 24, A985.	3.4	62
17	Efficient ceria nanostructures for enhanced solar fuel production via high-temperature thermochemical redox cycles. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9614-9624.	10.3	49
18	THERMAL TRANSPORT MODEL OF A PACKED-BED REACTOR FOR SOLAR THERMOCHEMICAL CO ₂ CAPTURE. <i>Special Topics and Reviews in Porous Media</i> , 2015, 6, 197-209.	1.1	10

#	ARTICLE	IF	CITATIONS
19	Optical Design of Multisource High-Flux Solar Simulators. Journal of Solar Energy Engineering, Transactions of the ASME, 2015, 137, .	1.8	58
20	Design of a Solar Reactor to Split CO ₂ Via Isothermal Redox Cycling of Ceria. Journal of Solar Energy Engineering, Transactions of the ASME, 2015, 137, .	1.8	52
21	Transient heat and mass transfer analysis in a porous ceria structure of a novel solar redox reactor. International Journal of Thermal Sciences, 2015, 92, 138-149.	4.9	21
22	An air-based corrugated cavity-receiver for solar parabolic trough concentrators. Applied Energy, 2015, 138, 337-345.	10.1	61
23	Towards Solar Thermochemical Carbon Dioxide Capture via Calcium Oxide Looping: A Review. Aerosol and Air Quality Research, 2014, 14, 500-514.	2.1	57
24	Thermodynamic Analysis of Isothermal Redox Cycling of Ceria for Solar Fuel Production. Energy & Fuels, 2013, 27, 5533-5544.	5.1	187
25	Experimental and Numerical Heat Transfer Analysis of an Air-Based Cavity-Receiver for Solar Trough Concentrators. Journal of Solar Energy Engineering, Transactions of the ASME, 2012, 134, .	1.8	21
26	A solar dish concentrator based on ellipsoidal polyester membrane facets. Solar Energy, 2012, 86, 40-47.	6.1	34
27	A 9-m-Aperture Solar Parabolic Trough Concentrator Based on a Multilayer Polymer Mirror Membrane Mounted on a Concrete Structure. Journal of Solar Energy Engineering, Transactions of the ASME, 2011, 133, .	1.8	28
28	An Air-Based Cavity-Receiver for Solar Trough Concentrators. , 2010, , .		0
29	A Solar Trough Concentrator for Pill-Box Flux Distribution Over a CPV Panel. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.8	7
30	An Air-Based Cavity-Receiver for Solar Trough Concentrators. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.8	29
31	Optical Design of a Novel Two-Stage Solar Trough Concentrator Based on Pneumatic Polymeric Structures. Journal of Solar Energy Engineering, Transactions of the ASME, 2009, 131, .	1.8	31