

K S Reddy

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7450116/publications.pdf>

Version: 2024-02-01

131
papers

5,726
citations

61857

43
h-index

82410

72
g-index

132
all docs

132
docs citations

132
times ranked

4349
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of solar energy driven desalination technologies. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 41, 1080-1118.	8.2	479
2	Thermal analysis of solar parabolic trough with porous disc receiver. <i>Applied Energy</i> , 2009, 86, 1804-1812.	5.1	198
3	Solar resource estimation using artificial neural networks and comparison with other correlation models. <i>Energy Conversion and Management</i> , 2003, 44, 2519-2530.	4.4	195
4	Review of latent heat thermal energy storage for improved material stability and effective load management. <i>Journal of Energy Storage</i> , 2018, 15, 205-227.	3.9	189
5	COVID-19: Impact analysis and recommendations for power sector operation. <i>Applied Energy</i> , 2020, 279, 115739.	5.1	180
6	Nano-enhanced Phase Change Material for thermal management of BICPV. <i>Applied Energy</i> , 2017, 208, 719-733.	5.1	164
7	Experimental investigation of porous disc enhanced receiver for solar parabolic trough collector. <i>Renewable Energy</i> , 2015, 77, 308-319.	4.3	162
8	4-E (Energy, Exergy, Environment, and Economic) analysis of solar thermal aided coal-fired power plants. <i>Energy for Sustainable Development</i> , 2010, 14, 267-279.	2.0	156
9	Comparison of receivers for solar dish collector system. <i>Energy Conversion and Management</i> , 2008, 49, 812-819.	4.4	146
10	A review of Integration, Control, Communication and Metering (ICCM) of renewable energy based smart grid. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 38, 180-192.	8.2	136
11	Performance of a low cost solar paraboloidal dish steam generating system. <i>Energy Conversion and Management</i> , 2000, 41, 713-726.	4.4	128
12	Performance analysis of tilted photovoltaic system integrated with phase change material under varying operating conditions. <i>Energy</i> , 2017, 133, 887-899.	4.5	127
13	Opportunities and challenges in micro- and nano-technologies for concentrating photovoltaic cooling: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 20, 595-610.	8.2	120
14	Numerical investigation of natural convection heat loss in modified cavity receiver for fuzzy focal solar dish concentrator. <i>Solar Energy</i> , 2007, 81, 846-855.	2.9	112
15	Optimization of solar photovoltaic system integrated with phase change material. <i>Solar Energy</i> , 2018, 163, 591-599.	2.9	103
16	An improved model for natural convection heat loss from modified cavity receiver of solar dish concentrator. <i>Solar Energy</i> , 2009, 83, 1884-1892.	2.9	99
17	Experimental performance investigation of tilted solar still with basin and wick for distillate quality and enviro-economic aspects. <i>Desalination</i> , 2017, 410, 30-54.	4.0	99
18	Numerical Investigation of Energy-Efficient Receiver for Solar Parabolic Trough Concentrator. <i>Heat Transfer Engineering</i> , 2008, 29, 961-972.	1.2	93

#	ARTICLE	IF	CITATIONS
19	Performance analysis of an evacuated multi-stage solar water desalination system. <i>Desalination</i> , 2012, 288, 80-92.	4.0	82
20	Investigation of solar parabolic trough power plants with and without integrated TES (thermal) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70.	4.5	78
21	Modelling photovoltaic soiling losses through optical characterization. <i>Scientific Reports</i> , 2020, 10, 58.	1.6	72
22	Effect of wind speed and direction on convective heat losses from solar parabolic dish modified cavity receiver. <i>Solar Energy</i> , 2016, 131, 183-198.	2.9	70
23	Estimating effective thermal conductivity of two-phase materials. <i>International Journal of Heat and Mass Transfer</i> , 2006, 49, 4209-4219.	2.5	68
24	Optimization of solar linear Fresnel reflector system with secondary concentrator for uniform flux distribution over absorber tube. <i>Solar Energy</i> , 2017, 150, 1-12.	2.9	68
25	Numerical Study of Porous Finned Receiver for Solar Parabolic Trough Concentrator. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2008, 2, 172-184.	1.5	67
26	ANN-GA based optimization of a high ash coal-fired supercritical power plant. <i>Applied Energy</i> , 2011, 88, 4867-4873.	5.1	64
27	Active multi-effect vertical solar still: Mathematical modeling, performance investigation and enviro-economic analyses. <i>Desalination</i> , 2016, 395, 99-120.	4.0	64
28	Heat loss characteristics of trapezoidal cavity receiver for solar linear concentrating system. <i>Applied Energy</i> , 2012, 93, 523-531.	5.1	63
29	Climatic behaviour of solar photovoltaic integrated with phase change material. <i>Energy Conversion and Management</i> , 2018, 166, 590-601.	4.4	63
30	Solar collector field design and viability analysis of stand-alone parabolic trough power plants for Indian conditions. <i>Energy for Sustainable Development</i> , 2012, 16, 456-470.	2.0	62
31	Optimization, selection and feasibility study of solar parabolic trough power plants for Algerian conditions. <i>Energy Conversion and Management</i> , 2015, 101, 450-459.	4.4	61
32	Experimental performance investigation of modified cavity receiver with fuzzy focal solar dish concentrator. <i>Renewable Energy</i> , 2015, 74, 148-157.	4.3	60
33	Numerical Investigation of Micro-channel based Active Module Cooling for Solar CPV System. <i>Energy Procedia</i> , 2014, 54, 400-416.	1.8	59
34	Performance investigation and enviro-economic analysis of active vertical solar distillation units. <i>Energy</i> , 2015, 84, 794-807.	4.5	56
35	Thermal Modeling of PCM-Based Solar Integrated Collector Storage Water Heating System. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2007, 129, 458-464.	1.1	55
36	Effect of porous disc receiver configurations on performance of solar parabolic trough concentrator. <i>Heat and Mass Transfer</i> , 2012, 48, 555-571.	1.2	54

#	ARTICLE	IF	CITATIONS
37	Optical modelling and performance analysis of a solar LFR receiver system with parabolic and involute secondary reflectors. <i>Applied Energy</i> , 2016, 179, 1138-1151.	5.1	52
38	Convection and surface radiation heat losses from modified cavity receiver of solar parabolic dish collector with two-stage concentration. <i>Heat and Mass Transfer</i> , 2009, 45, 363-373.	1.2	51
39	Performance, water quality and enviro-economic investigations on solar distillation treatment of reverse osmosis reject and sewage water. <i>Solar Energy</i> , 2018, 173, 160-172.	2.9	50
40	An optical analysis of a static 3-D solar concentrator. <i>Solar Energy</i> , 2013, 88, 57-70.	2.9	49
41	Viability analysis of solar parabolic dish stand-alone power plant for Indian conditions. <i>Applied Energy</i> , 2013, 102, 908-922.	5.1	49
42	Combined heat loss analysis of solar parabolic dish " modified cavity receiver for superheated steam generation. <i>Solar Energy</i> , 2015, 121, 78-93.	2.9	48
43	Plate Micro-fins in Natural Convection: An Opportunity for Passive Concentrating Photovoltaic Cooling. <i>Energy Procedia</i> , 2015, 82, 301-308.	1.8	45
44	Performance investigation of single-tank thermocline storage systems for CSP plants. <i>Solar Energy</i> , 2017, 144, 740-749.	2.9	45
45	Investigation of performance and emission characteristics of a biogas fuelled electric generator integrated with solar concentrated photovoltaic system. <i>Renewable Energy</i> , 2016, 92, 233-243.	4.3	43
46	Design, development and performance investigation of solar Parabolic Trough Collector for large-scale solar power plants. <i>Renewable Energy</i> , 2020, 146, 1943-1957.	4.3	43
47	Energy-environment-economic investigations on evacuated active multiple stage series flow solar distillation unit for potable water production. <i>Energy Conversion and Management</i> , 2017, 151, 259-285.	4.4	40
48	Thermal Performance Analysis of Multi-Phase Change Material Layer-Integrated Building Roofs for Energy Efficiency in Built-Environment. <i>Energies</i> , 2017, 10, 1367.	1.6	40
49	Theoretical investigation considering manufacturing errors of a high concentrating photovoltaic of cassegrain design and its experimental validation. <i>Solar Energy</i> , 2016, 131, 235-245.	2.9	38
50	Experimental comparison of micro-scaled plate-fins and pin-fins under natural convection. <i>International Communications in Heat and Mass Transfer</i> , 2016, 75, 59-66.	2.9	36
51	Simulation studies of thermal and electrical performance of solar linear parabolic trough concentrating photovoltaic system. <i>Solar Energy</i> , 2017, 149, 195-213.	2.9	36
52	Enhanced Photoactivity and Hydrogen Generation of LaFeO ₃ Photocathode by Plasmonic Silver Nanoparticle Incorporation. <i>ACS Applied Energy Materials</i> , 2018, 1, 3449-3456.	2.5	36
53	Optimization of fins fitted phase change material equipped solar photovoltaic under various working circumstances. <i>Energy Conversion and Management</i> , 2019, 180, 1185-1195.	4.4	35
54	Numerical investigations on metal foam inserted solar parabolic trough DSG absorber tube for mitigating thermal gradients and enhancing heat transfer. <i>Applied Thermal Engineering</i> , 2020, 178, 115511.	3.0	35

#	ARTICLE	IF	CITATIONS
55	General correlations among geometry, orientation and thermal performance of natural convective micro-finned heat sinks. <i>International Journal of Heat and Mass Transfer</i> , 2015, 91, 711-724.	2.5	33
56	Electrical enhancement period of solar photovoltaic using phase change material. <i>Journal of Cleaner Production</i> , 2019, 221, 878-884.	4.6	33
57	Effects of operational and environmental parameters on the performance of a solar photovoltaic-thermal collector. <i>Energy Conversion and Management</i> , 2020, 205, 112428.	4.4	33
58	Effect of climate on electrical performance of finned phase change material integrated solar photovoltaic. <i>Solar Energy</i> , 2018, 174, 593-605.	2.9	32
59	Performance analysis of perovskite and dye-sensitized solar cells under varying operating conditions and comparison with monocrystalline silicon cell. <i>Applied Thermal Engineering</i> , 2017, 127, 559-565.	3.0	31
60	Applicability of silicon micro-finned heat sinks for 500Å– concentrating photovoltaics systems. <i>Journal of Materials Science</i> , 2015, 50, 5378-5388.	1.7	30
61	Techno-Economic Analysis of Standalone Solar Photovoltaic-Wind-Biogas Hybrid Renewable Energy System for Community Energy Requirement. <i>Future Cities and Environment</i> , 2019, 5, .	0.6	28
62	Prototype fabrication and experimental investigation of a conjugate refractive reflective homogeniser in a cassegrain concentrator. <i>Solar Energy</i> , 2017, 142, 97-108.	2.9	27
63	Design and analysis of dense array CPV receiver for square parabolic dish system with CPC array as secondary concentrator. <i>Solar Energy</i> , 2020, 199, 782-795.	2.9	26
64	Experimental investigation of solar photovoltaic panel integrated with phase change material and multiple conductivity-enhancing-containers. <i>Energy</i> , 2020, 205, 118047.	4.5	25
65	Estimation of Effective Thermal Conductivity of Two-Phase Materials Using Collocated Parameter Model. <i>Heat Transfer Engineering</i> , 2009, 30, 998-1011.	1.2	24
66	4-E (energyâ€“exergyâ€“environmentalâ€“economic) analyses of line-focusing stand-alone concentrating solar power plants. <i>International Journal of Low-Carbon Technologies</i> , 2012, 7, 82-96.	1.2	23
67	Thermal effectiveness and mass usage of horizontal micro-fins under natural convection. <i>Applied Thermal Engineering</i> , 2016, 97, 39-47.	3.0	23
68	Inverse heat transfer technique for estimation of focal flux distribution for a concentrating photovoltaic (CPV) square solar parabola dish collector. <i>Renewable Energy</i> , 2020, 145, 2783-2795.	4.3	20
69	3-E analysis of advanced power plants based on high ash coal. <i>International Journal of Energy Research</i> , 2010, 34, n/a-n/a.	2.2	19
70	Investigation of Convection and Radiation Heat Losses From Modified Cavity Receiver of Solar Parabolic Dish Using Asymptotic Computational Fluid Dynamics. <i>Heat Transfer Engineering</i> , 2010, 31, 597-607.	1.2	19
71	Techno-Economic Investigation of Solar Powered Electric Auto-Rickshaw for a Sustainable Transport System. <i>Energies</i> , 2017, 10, 754.	1.6	19
72	Thermal analysis of porous volumetric receivers of concentrated solar dish and tower systems. <i>Renewable Energy</i> , 2019, 132, 786-797.	4.3	19

#	ARTICLE	IF	CITATIONS
73	Transient analysis of modified cuboid solar integrated-collector-storage system. Applied Thermal Engineering, 2007, 27, 330-346.	3.0	18
74	Viability assessment of solar distillation for desalination in coastal locations of Indian sub-continent – Thermodynamic, condensate quality and enviro-economic aspects. Solar Energy, 2020, 197, 84-98.	2.9	18
75	Enhancing the performance of BICPV systems using phase change materials. AIP Conference Proceedings, 2015, , .	0.3	17
76	Thermodynamic analysis of a coal-fired power plant repowered with pressurized pulverized coal combustion. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2012, 226, 5-16.	0.8	16
77	Estimation of Heat Losses from Modified Cavity Mono-tube Boiler Receiver of Solar Parabolic Dish for Steam Generation. Energy Procedia, 2014, 57, 371-380.	1.8	15
78	Enhancing ultra-high CPV passive cooling using least-material finned heat sinks. AIP Conference Proceedings, 2015, , .	0.3	15
79	Optical and electrical performance investigation of truncated 3X non-imaging low concentrating photovoltaic-thermal systems. Energy Conversion and Management, 2020, 220, 113056.	4.4	15
80	4-E (Energy-Exergy-Environment-Economic) analyses of integrated solar powered jaggery production plant with different pan configurations. Solar Energy, 2020, 197, 126-143.	2.9	14
81	Solar Photovoltaic Panels with Finned Phase Change Material Heat Sinks. Energies, 2020, 13, 2558.	1.6	14
82	Design of A 16-Cell Densely-packed Receiver for High Concentrating Photovoltaic Applications. Energy Procedia, 2014, 54, 185-198.	1.8	13
83	Estimation of heat losses due to wind effects from linear parabolic secondary reflector –receiver of solar LFR module. Energy, 2018, 150, 410-433.	4.5	13
84	Fragmentation of wood char in a laboratory scale fluidized bed combustor. Fuel Processing Technology, 2008, 89, 1121-1134.	3.7	12
85	Feasibility analysis of megawatt scale solar thermal power plants. Journal of Renewable and Sustainable Energy, 2012, 4, 063111.	0.8	12
86	Comparative study of single and multi-layered packed-bed thermal energy storage systems for CSP plants. Applied Solar Energy (English Translation of Geliotekhnika), 2017, 53, 276-286.	0.2	12
87	Sensitivity study of thermal performance characteristics based on optical parameters for direct steam generation in parabolic trough collectors. Solar Energy, 2018, 169, 577-593.	2.9	12
88	Numerical Analysis of Thermal Striping Phenomena Using a Two Jet Water Model. Engineering Applications of Computational Fluid Mechanics, 2010, 4, 209-221.	1.5	11
89	Thermodynamic Optimization of Advanced Steam Power Plants Retrofitted for Oxy-Coal Combustion. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	11
90	In-situ prediction of focal flux distribution for concentrating photovoltaic (CPV) system using inverse heat transfer technique for effective design of receiver. Solar Energy, 2018, 159, 510-518.	2.9	11

#	ARTICLE	IF	CITATIONS
91	Simultaneous estimation of thermal properties of orthotropic material with non-intrusive measurement. <i>International Journal of Heat and Mass Transfer</i> , 2018, 126, 1162-1177.	2.5	11
92	Estimation of effective thermal conductivity of packed beds incorporating effects of primary and secondary parameters. <i>Thermal Science and Engineering Progress</i> , 2019, 11, 392-408.	1.3	10
93	Design and experimental analysis of a static 3-D elliptical hyperboloid concentrator for process heat applications. <i>Solar Energy</i> , 2014, 102, 257-266.	2.9	9
94	Inverse estimation of thermal properties using Bayesian inference and three different sampling techniques. <i>Inverse Problems in Science and Engineering</i> , 2017, 25, 73-88.	1.2	9
95	Thermal enhancement of graphene dispersed emulsifier cutting fluid with different surfactants. <i>Materials Research Express</i> , 2019, 6, 125030.	0.8	9
96	Optical modeling of corrugation cavity receiver for large-aperture solar parabolic dish collector. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2022, 44, 3330-3348.	1.2	9
97	Design and optimisation of elliptical hyperboloid concentrator with helical receiver. <i>Solar Energy</i> , 2014, 108, 515-524.	2.9	8
98	Conjugate refractive-reflective homogeniser in a 500Å— Cassegrain concentrator: design and limits. <i>IET Renewable Power Generation</i> , 2016, 10, 440-447.	1.7	8
99	Characterization of various two-phase materials based on thermal conductivity using modified transient plane source method. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	8
100	Performance evaluation of a solar and wind aided cross-flow evaporator for RO reject management. <i>Desalination</i> , 2013, 317, 1-10.	4.0	7
101	An Inverse Method for Simultaneous Estimation of Thermal Properties of Orthotropic Materials using Gaussian Process Regression. <i>Journal of Physics: Conference Series</i> , 2016, 745, 032090.	0.3	7
102	Inverse analysis for simultaneous estimation of temperature dependent thermal properties of isotropic materials. <i>Thermal Science and Engineering Progress</i> , 2020, 20, 100728.	1.3	7
103	Performance of contact and non-contact type hybrid photovoltaic-thermal (PV-T) collectors. <i>International Journal of Low-Carbon Technologies</i> , 2007, 2, 359-375.	1.2	6
104	Investigation of Thermal Striping in Prototype Fast Breeder Reactor Using Ten-Jet Water Model. <i>Heat Transfer Engineering</i> , 2011, 32, 369-383.	1.2	6
105	Solar Power Generation. <i>International Journal of Photoenergy</i> , 2013, 2013, 1-2.	1.4	6
106	Design, Development, and Analysis of a Densely Packed 500x Concentrating Photovoltaic Cell Assembly on Insulated Metal Substrate. <i>International Journal of Photoenergy</i> , 2015, 2015, 1-18.	1.4	6
107	Combinatory Models for Predicting the Effective Thermal Conductivity of Frozen and Unfrozen Food Materials. <i>Advances in Mechanical Engineering</i> , 2010, 2, 901376.	0.8	6
108	Solar gain characteristics of absorber-parallel transparent insulation materials. <i>Energy Conversion and Management</i> , 1998, 39, 1519-1527.	4.4	5

#	ARTICLE	IF	CITATIONS
109	Finite time thermal analysis of ground integrated-collector-storage solar water heater with transparent insulation cover. International Journal of Energy Research, 1999, 23, 925-940.	2.2	5
110	The design of a parabolic reflector system with high tracking tolerance for high solar concentration. , 2014, , .		5
111	Heat Transfer Modeling and Analysis of Solar Thermo-chemical Reactor for Hydrogen Production from Water. Energy Procedia, 2014, 57, 570-579.	1.8	4
112	Comparison of Two-Phase Flow Correlations for Thermo-Hydraulic Modeling of Direct Steam Generation in a Solar Parabolic Trough Collector System. Journal of Thermal Science and Engineering Applications, 2018, 10, .	0.8	4
113	Photovoltaic system integrated with phase change material for South west UK climate. AIP Conference Proceedings, 2018, , .	0.3	4
114	Experimental performance investigations of an elliptical hyperbolic non-imaging solar concentrator with trapezoidal surface receiver for process heat applications. Journal of Cleaner Production, 2018, 192, 735-750.	4.6	4
115	Estimation of Spatially Distributed Thermal Properties of Heterogeneous Media with Non-Intrusive Measurement. Heat Transfer Engineering, 2021, 42, 61-87.	1.2	4
116	Optimization of a novel Hybrid Wind Bio Battery Solar Photovoltaic System Integrated with Phase Change Material. Energies, 2021, 14, 6373.	1.6	4
117	Estimation of convective heat losses from conical cavity receiver of solar parabolic dish collector under wind conditions and receiver orientations. E3S Web of Conferences, 2021, 313, 11001.	0.2	3
118	Design and production of a 2.5 kWe insulated metal substrate-based densely packed CPV assembly. , 2014, , .		2
119	Simulation of a cross flow wind aided evaporator. Desalination, 2014, 340, 18-29.	4.0	2
120	Optimization of the least-material approach for passive Ultra-High CPV cooling. , 2015, , .		2
121	Numerical Investigation of Solar Parabolic Trough Receiver Under Non Uniform Solar Flux Distribution. , 2016, , .		2
122	Optical analysis and thermal management of 2-cell strings linear concentrating photovoltaic system. AIP Conference Proceedings, 2015, , .	0.3	1
123	Small-Volume Fabrication of a 144-Cell Assembly for High-Concentrating Photovoltaic Receivers. Journal of Solar Energy Engineering, Transactions of the ASME, 2016, 138, .	1.1	1
124	Performance investigation of linear evacuated absorber of 2-stage solar Linear Fresnel Reflector module under non-uniform flux distribution. International Journal of Low-Carbon Technologies, 2018, 13, 92-101.	1.2	1
125	Assessment of optimum energy demand for non-centrifugal sugar production through an alternate process. Journal of Physics: Conference Series, 2019, 1276, 012079.	0.3	1
126	A semi-analytical solution to estimate an effective thermal conductivity of the two-phase building materials with spherical inclusions. Heat and Mass Transfer, 2020, 56, 3209-3227.	1.2	1

#	ARTICLE	IF	CITATIONS
127	Heat Loss Prediction from Solar LFR Linear Evacuated Surface Receiver with Variable 2-STAGE Concentrated Flux. , 2017, , .		1
128	Performance Investigation of Combined Solar Desalination and Hot Water System. , 2016, , .		0
129	Status and Perspective of Concentrating Photovoltaic Systems: the Results of the BioCPV Project and Opportunities for a Sustainable Energy Supply to Rural Areas. , 2016, , .		0
130	Performance Analysis of Concave Cavity Surface Receiver for a Non-Imaging Solar Concentrator. , 2016, , .		0
131	Design of Non-Imaging Solar Collectors for Process Heat. , 2017, , .		0