Abraham Kribus

List of Publications by Year
in descending order

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104 papers	3,037 citations	159358 30 h-index	168136 53 g-index
106 all docs	106 docs citations	106 times ranked	2198 citing authors

#	Article	IF	Citations
1	Solar cooling with concentrating photovoltaic/thermal (CPVT) systems. Energy Conversion and Management, 2007, 48, 2481-2490.	4.4	244
2	A solar-driven combined cycle power plant. Solar Energy, 1998, 62, 121-129.	2.9	182
3	A miniature concentrating photovoltaic and thermal system. Energy Conversion and Management, 2006, 47, 3582-3590.	4.4	171
4	Experimental evaluation of a non-isothermal high temperature solar particle receiver. Energy, 2004, 29, 687-700.	4.5	120
5	Water desalination with concentrating photovoltaic/thermal (CPVT) systems. Solar Energy, 2009, 83, 1322-1334.	2.9	120
6	The promise and challenge of solar volumetric absorbers. Solar Energy, 2014, 110, 463-481.	2.9	115
7	Solar ?tower reflector? systems: A new approach for high-temperature solar plants. International Journal of Hydrogen Energy, 1998, 23, 239-245.	3.8	107
8	Equivalent circuit models for triple-junction concentrator solar cells. Solar Energy Materials and Solar Cells, 2012, 98, 57-65.	3.0	106
9	PCM storage for solar DHW: An unfulfilled promise?. Solar Energy, 2008, 82, 861-869.	2.9	97
10	A Multistage Solar Receiver:. Solar Energy, 1999, 67, 3-11.	2.9	95
11	Large-amplitude wavetrains and solitary waves in vortices. Journal of Fluid Mechanics, 1990, 216, 459-504.	1.4	87
12	Experimental study of ceramic foams used as high temperature volumetric solar absorber. Solar Energy, 2016, 136, 226-235.	2.9	81
13	Inherent Limitations of Volumetric Solar Receivers. Journal of Solar Energy Engineering, Transactions of the ASME, 1996, 118, 151-155.	1.1	77
14	Solar Thermionicâ€Thermoelectric Generator (ST²G): Concept, Materials Engineering, and Prototype Demonstration. Advanced Energy Materials, 2018, 8, 1802310.	10.2	77
15	Solar hybrid steam injection gas turbine (STIG) cycle. Solar Energy, 2012, 86, 190-199.	2.9	60
16	Closed loop control of heliostats. Energy, 2004, 29, 905-913.	4.5	59
17	Efficiency of photon enhanced thermionic emission solar converters. Solar Energy Materials and Solar Cells, 2012, 107, 125-130.	3.0	58
18	Limit of efficiency for photon-enhanced thermionic emission vs. photovoltaic and thermal conversion. Solar Energy Materials and Solar Cells, 2015, 140, 464-476.	3.0	58

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19	Optical fibers and solar power generation. Solar Energy, 2000, 68, 405-416.	2.9	44
20	Solar energy conversion with photon-enhanced thermionic emission. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	1.0	43
21	High performance isothermal photo-thermionic solar converters. Solar Energy Materials and Solar Cells, 2013, 113, 114-123.	3.0	42
22	Concentrating Solar Power in Europe, the Middle East and North Africa: A Review of Development Issues and Potential to 2050. Journal of Solar Energy Engineering, Transactions of the ASME, 2012, 134, .	1.1	41
23	Loss mechanisms and back surface field effect in photon enhanced thermionic emission converters. Journal of Applied Physics, 2013, 114, .	1.1	40
24	A high-efficiency triple cycle for solar power generation. Solar Energy, 2002, 72, 1-11.	2.9	38
25	Nonisothermal Receivers. Journal of Solar Energy Engineering, Transactions of the ASME, 1995, 117, 259-261.	1.1	37
26	Performance of CPV modules based on vertical multi-junction cells under non-uniform illumination. Solar Energy, 2013, 88, 120-128.	2.9	35
27	Potential of Polygeneration With Solar Thermal and Photovoltaic Systems. Journal of Solar Energy Engineering, Transactions of the ASME, 2008, 130, .	1.1	34
28	Vertical junction Si cells for concentrating photovoltaics. Progress in Photovoltaics: Research and Applications, 2012, 20, 197-208.	4.4	33
29	Optimization of High Temperature SiC Volumetric Solar Absorber. Energy Procedia, 2014, 49, 478-487.	1.8	33
30	Hydrothermal processing of a green seaweed Ulva sp. for the production of monosaccharides, polyhydroxyalkanoates, and hydrochar. Bioresource Technology, 2020, 318, 124263.	4.8	33
31	Exergy analysis and annual exergetic performance evaluation of solar hybrid STIG (steam injected gas) Tj ETQq1 1 0.784314 rgBT /Overl	4.5	30
32	Thermal Integral Micro-Generation Systems for Solar and Conventional Use. Journal of Solar Energy Engineering, Transactions of the ASME, 2002, 124, 189-197.	1.1	25
33	Operation strategies and performance of solar thermal power plants operating from PCM storage. Solar Energy, 2013, 95, 170-180.	2.9	24
34	Biorefinery for the co-production of protein, hydrochar and additional co-products from a green seaweed Ulva sp. with subcritical water hydrolysis. Energy Conversion and Management, 2020, 225, 113380.	4.4	24
35	Parametric Study of Volumetric Absorber Performance. Energy Procedia, 2014, 49, 408-417.	1.8	23
36	Preliminary characterization of ST2G: Solar thermionic-thermoelectric generator for concentrating systems. AIP Conference Proceedings, 2015, , .	0.3	21

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37	An economic analysis of solar hybrid steam injected gas turbine (STIG) plant for Indian conditions. Applied Thermal Engineering, 2015, 75, 1055-1064.	3.0	21
38	Faceted concentrators optimized for homogeneous radiation. Applied Optics, 2000, 39, 1152.	2.1	20
39	Experimentally Determined Optical Properties of a Polydisperse Carbon Black Cloud for a Solar Particle Receiver. Journal of Solar Energy Engineering, Transactions of the ASME, 2004, 126, 833-841.	1.1	19
40	Synergistic effect of heat and solar UV on DNA damage and water disinfection of E. coli and bacteriophage MS2. Journal of Water and Health, 2012, 10, 605-618.	1.1	19
41	Performance Limits of Heliostat Fields. Journal of Solar Energy Engineering, Transactions of the ASME, 1998, 120, 240-246.	1.1	18
42	Kaleidoscope homogenizers sensitivity to shading. Solar Energy, 2013, 88, 204-214.	2.9	18
43	Large-Scale characterization of Two-Dimensional Monolayer MoS2 Island Domains Using Spectroscopic Ellipsometry and Reflectometry. Applied Surface Science, 2020, 524, 146418.	3.1	18
44	Optical Performance of Conical Windows for Concentrated Solar Radiation. Journal of Solar Energy Engineering, Transactions of the ASME, 1994, 116, 47-52.	1.1	16
45	The TROF (tower reflector with optical fibers): a new degree of freedom for solar energy systems. Solar Energy, 1999, 67, 13-22.	2.9	15
46	Performance of a rectangular secondary concentrator with an asymmetric heliostat field. Solar Energy, 2000, 69, 139-151.	2.9	15
47	Analysis of a microscale â€˜Saturation Phase-change Internal Carnot Engineâ€™. Energy Conversion and Management, 2010, 51, 1202-1209.	4.4	14
48	Thermo-electro-chemical storage (TECS) of solar energy. Applied Energy, 2017, 190, 788-799.	5.1	14
49	Optimized secondary concentrators for a partitioned central receiver system. Solar Energy, 2000, 69, 153-162.	2.9	13
50	Performance of the solar hybrid STIG cycle with latent heat storage. Applied Energy, 2015, 155, 791-803.	5.1	13
51	Algae Window for reducing energy consumption of building structures in the Mediterranean city of Tel-Aviv, Israel. Energy and Buildings, 2019, 204, 109460.	3.1	13
52	Method for accurate measurement of infrared emissivity for opaque low-reflectance materials. Applied Optics, 2019, 58, 4599.	0.9	13
53	Instability of strongly nonlinear waves in vortex flows. Journal of Fluid Mechanics, 1994, 269, 247-264.	1.4	12
54	Non-axisymmetric reflectors concentrating radiation from an asymmetric heliostat field onto a circular absorber. Solar Energy, 1998, 63, 23-30.	2.9	12

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55	EXTENSION OF THE HERMITE EXPANSION METHOD FOR CASSEGRAINIAN SOLAR CENTRAL RECEIVER SYSTEMS. Solar Energy, 1998, 63, 337-343.	2.9	12
56	Optical assessment of nonimaging concentrators. Applied Optics, 2000, 39, 5679.	2.1	12
57	Systematic errors in the measurement of emissivity caused by directional effects. Applied Optics, 2003, 42, 1839.	2.1	12
58	Hybrid solar-seaweed biorefinery for co-production of biochemicals, biofuels, electricity, and water: Thermodynamics, life cycle assessment, and cost-benefit analysis. Energy Conversion and Management, 2021, 246, 114679.	4.4	12
59	Buoyancy-Induced Flow of a Tracer in Vertical Conduits. Water Resources Research, 1995, 31, 1167-1173.	1.7	11
60	A cooler for dense-array CPV receivers based on metal foam. Solar Energy, 2018, 160, 25-31.	2.9	11
61	Investigation of contact grid geometry for photon-enhanced thermionic emission (PETE) silicon based solar converters. Solar Energy, 2016, 133, 259-273.	2.9	10
62	Co-production of Monosaccharides and Hydrochar from Green Macroalgae Ulva (Chlorophyta) sp. with Subcritical Hydrolysis and Carbonization. Bioenergy Research, 2019, 12, 1090-1103.	2.2	10
63	Annual performance of the solar hybrid STIG cycle. Solar Energy, 2014, 107, 278-291.	2.9	9
64	Minority carrier recombination of ordered Ga0.51In0.49P at high temperatures. Applied Physics Letters, 2016, 109, 222106.	1.5	9
65	Performance and Water Consumption of the Solar Steam-Injection Gas Turbine Cycle. Journal of Solar Energy Engineering, Transactions of the ASME, 2013, 135, .	1.1	8
66	Highâ€Temperature Latentâ€Heat Energy Storage Concept Based on Thermoelectronic Energy Conversion. Energy Technology, 2017, 5, 2234-2243.	1.8	8
67	Polyhydroxyalkanoates and biochar from green macroalgal Ulva sp. biomass subcritical hydrolysates: Process optimization and a priori economic and greenhouse emissions break-even analysis. Science of the Total Environment, 2021, 770, 145281.	3.9	8
68	Effective Radiative Properties of a Cylinder Array. Journal of Heat Transfer, 2002, 124, 198-200.	1.2	8
69	Solar spectral beam splitting for photochemical conversion and polygeneration. Energy Conversion and Management, 2022, 258, 115525.	4.4	8
70	PCM Storage System with Integrated Active Heat Pipe. Energy Procedia, 2014, 49, 1061-1070.	1.8	7
71	Annual Thermodynamic Analysis of Solar Power with Steam Injection Gas Turbine (STIG) Cycle for Indian Conditions. Energy Procedia, 2014, 57, 2920-2929.	1.8	7
72	â€˜Dualâ€referenceâ€™ method for highâ€precision infrared measurement of leaf surface temperature under field conditions. New Phytologist, 2021, 232, 2535-2546.	3.5	7

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73	Mono-specific algal diets shape microbial networking in the gut of the sea urchin Tripneustes gratilla elatensis. Animal Microbiome, 2021, 3, 79.	1.5	7
74	Continuous Tracking of Heliostats. Journal of Solar Energy Engineering, Transactions of the ASME, 2004, 126, 842-849.	1.1	6
75	Impact of the Thomson effect on concentrating photovoltaic cells. Solar Energy Materials and Solar Cells, 2010, 94, 1421-1425.	3.0	6
76	Measurements of velocity fields in finite cylinder arrays with and without tip clearance. Experimental Thermal and Fluid Science, 2001, 24, 157-167.	1.5	5
77	Annual energy and environment analysis of solarized steam injection gas turbine (STIG) cycle for Indian regions. Applied Thermal Engineering, 2016, 94, 679-696.	3.0	5
78	LiMoNAED: a limited motion, non-shading, asymmetric, ecliptic-tracking dish. Solar Energy, 2002, 73, 337-344.	2.9	4
79	Cogeneration With Concentrating Photovoltaic Systems. , 2005, , 477.		4
80	Solar STIG Cycle Annual Analysis. , 2012, , .		4
81	Front-side interconnected large area concentrator cells for compact concentrator modules. AIP Conference Proceedings, 2012, , .	0.3	4
82	<title>Toward large-scale solar energy systems with peak concentrations of 20,000 suns</title>. , 1997, , .		3
83	Volumetric optical properties of fully anisotropic participating media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 69, 415-430.	1.1	3
84	Heat Transfer in Miniature Heat Engines. Heat Transfer Engineering, 2004, 25, 1-3.	1.2	3
85	Theoretical and Practical Progress of New Heliostat by Chen et al.. Communications in Theoretical Physics, 2006, 45, 163-164.	1.1	3
86	Performance of heat engines with non-zero heat capacity. Energy Conversion and Management, 2013, 65, 108-119.	4.4	3
87	Dense Wire Mesh as a High-Efficiency Solar Volumetric Absorber. , 2017, , .		3
88	A High Temperature Solar Particle Receiver. Journal of Solar Energy Engineering, Transactions of the ASME, 2004, 126, 826-826.	1.1	2
89	Optical In-Situ Assessment of a Nonimaging Secondary Concentrator in a Solar Tower. Journal of Solar Energy Engineering, Transactions of the ASME, 2002, 124, 223-229.	1.1	1
90	A Micro Heat Engine Executing an Internal Carnot Cycle. , 2008, , .		1

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91	Single bandgap solar converters unbounded by the Shockley Queisser limit. , 2013, , .		1
92	Wet-chemistry based selective coatings for concentrating solar power. , 2013, , .		1
93	<title>Asymmetrical cone-type secondary concentrators for Fresnel-type reflectors in solar towers</title>. , 1997, 3139, 86.		0
94	<title>Optimized CPC-type concentrators built of plane facets</title>. , 1999, , .		0
95	Vertical Junction Si Photovoltaic Cells for Concentrating PV. , 2010, , .		0
96	Concentrating solar thermal power. , 0, , 272-288.		0
97	High performance photo-thermionic solar converters. , 2012, , .		0
98	Solar electricity with photon-enhanced thermionic emission (PETE). , 2014, , .		0
99	Carrier recombination dynamics in Ga0.51In0.49P double-heterostructures up to 500 K. Semiconductor Science and Technology, 2020, 35, 055001.	1.0	0
100	Thermochemically regenerative flow batteries for solar electricity generation and storage. , 2021, , 35-56.		0
101	The Trof (Tower Reflector with Optical Fibers). , 2000, , 266-271.		0
102	A Multistage Solar Receiver. , 2000, , 258-265.		0
103	Radiative Transport in Anisotropic Media. Lecture Notes in Physics, 2001, , 151-162.	0.3	0
104	Radiative and Convective Transport in Solar Volumetric Absorbers. , 2016, , .		0