Ricardo Vasquez Padilla

List of Publications by Year
in descending order

70 papers	2,268 citations	257101 24 h-index	223531 46 g-index
70 all docs	70 docs citations	70 times ranked	1890 citing authors

#	Article	IF	Citations
1	A Single-Stage Rectifier-Less Boost Converter Circuit for Piezoelectric Energy Harvesting Systems. IEEE Transactions on Energy Conversion, 2022, 37, 505-514.	3.7	15
2	Non-Linear Switching Circuit for Active Voltage Rectification and Ripples Reduction of Piezoelectric Energy Harvesters. Energies, 2022, 15, 709.	1.6	4
3	Crop fertilisation potential of phosphorus in hydrochars produced from sewage sludge. Science of the Total Environment, 2022, 817, 153023.	3.9	18
4	Tuning Analysis and Optimization of a Cluster-Based Aiming Methodology for Solar Central Receivers. Frontiers in Energy Research, 2022, 10, .	1.2	3
5	Optical analysis of a semi-transparent packed bed of spheres for next-generation volumetric solar receivers. Energy, 2022, 252, 123985.	4.5	7
6	Modelling of the electromechanical impedance technique for prediction of elastic modulus of structural adhesives. Structural Health Monitoring, 2021, 20, 2245-2260.	4.3	13
7	Monitoring of concrete curing using the electromechanical impedance technique: review and path forward. Structural Health Monitoring, 2021, 20, 604-636.	4.3	45
8	Design and Application of a Self-Powered Dual-Stage Circuit for Piezoelectric Energy Harvesting Systems. IEEE Access, 2021, 9, 86954-86965.	2.6	11
9	Supercritical Fluids and Their Applications in Power Generation. Advances in Chemical and Materials Engineering Book Series, 2021, , 566-599.	0.2	0
10	An Improved Rectifier Circuit for Piezoelectric Energy Harvesting from Human Motion. Applied Sciences (Switzerland), 2021, 11, 2008.	1.3	12
11	Optimized operation of recompression sCO2 Brayton cycle based on adjustable recompression fraction under variable conditions. Energy, 2021, 227, 120334.	4.5	19
12	Efficiency limits of high-temperature transparent packed-bed solar receivers. Energy Conversion and Management, 2021, 241, 114257.	4.4	9
13	A self-tunable wind energy harvester utilising a piezoelectric cantilever beam with bluff body under transverse galloping for field deployment. Energy Conversion and Management, 2021, 245, 114559.	4.4	21
14	Experimentally validated pore-scale numerical analysis for high-temperature (>700Â°C), high-efficiency (>90%) volumetric solar receivers. Energy Conversion and Management: X, 2021, 12, 100127.	0.9	0
15	Development of a novel high-temperature, pressurised, indirectly-irradiated cavity receiver. Energy Conversion and Management, 2020, 204, 112175.	4.4	19
16	Simulation model of the characteristics of syngas from hardwood biomass for thermally integrated gasification using unisim design tool. Energy, 2020, 211, 118658.	4.5	6
17	An Improved Self-Powered H-Bridge Circuit for Voltage Rectification of Piezoelectric Energy Harvesting System. IEEE Journal of the Electron Devices Society, 2020, 8, 1050-1062.	1.2	24
18	Aiming clusters of heliostats over solar receivers for distributing heat flux using one variable per group. Renewable Energy, 2020, 160, 584-596.	4.3	9

#	Article	IF	Citations
19	A novel high-temperature (>700ÂÂ°C), volumetric receiver with a packed bed of transparent and absorbing spheres. Applied Energy, 2020, 264, 114705.	5.1	21
20	Design of high-temperature atmospheric and pressurised gas-phase solar receivers: A comprehensive review on numerical modelling and performance parameters. Solar Energy, 2020, 201, 701-723.	2.9	23
21	Performance Enhancement of a Multiresonant Piezoelectric Energy Harvester for Low Frequency Vibrations. Energies, 2019, 12, 2770.	1.6	25
22	Effect of short cloud shading on the performance of parabolic trough solar power plants: motorized vs manual valves. Renewable Energy, 2019, 142, 330-344.	4.3	15
23	A transient optical-thermal model with dynamic matrix controller for solar central receivers. Applied Thermal Engineering, 2019, 154, 686-698.	3.0	19
24	High-temperature, point-focus, pressurised gas-phase solar receivers: A comprehensive review. Energy Conversion and Management, 2019, 185, 678-717.	4.4	63
25	Improving efficiency of piezoelectric based energy harvesting from human motions using double pendulum system. Energy Conversion and Management, 2019, 184, 559-570.	4.4	103
26	Optimizing orientation of piezoelectric cantilever beam for harvesting energy from human walking. Energy Conversion and Management, 2018, 161, 66-73.	4.4	129
27	Dynamic performance of an aiming control methodology for solar central receivers due to cloud disturbances. Renewable Energy, 2018, 121, 355-367.	4.3	25
28	Dynamic Modeling of Solar Radiation Disturbances Based on a Biomimetic Cloud Shading Model. Journal of Solar Energy Engineering, Transactions of the ASME, 2018, 140, .	1.1	3
29	Multivariable Closed Control Loop Methodology for Heliostat Aiming Manipulation in Solar Central Receiver Systems. Journal of Solar Energy Engineering, Transactions of the ASME, 2018, 140, .	1.1	11
30	Experimental and Theoretical Analysis of the Goswami Cycle Operating at Low Temperature Heat Sources. Journal of Energy Resources Technology, Transactions of the ASME, 2018, 140, .	1.4	12
31	Multi-objective thermodynamic optimisation of supercritical CO₂ Brayton cycles integrated with solar central receivers. International Journal of Sustainable Energy, 2018, 37, 1-20.	1.3	18
32	Parametric study and modeling of PZT based wave propagation technique related to practical issues in monitoring of concrete curing. Construction and Building Materials, 2018, 176, 519-530.	3.2	29
33	Modelling autonomous hybrid photovoltaic-wind energy systems under a new reliability approach. Energy Conversion and Management, 2018, 172, 357-369.	4.4	42
34	AnÃ¡lisis exergÃ©tico de un ciclo Brayton supercrÃtico con diÃ³xido de carbono como fluido de trabajo. Inge Cuc, 2018, 14, 159-170.	0.2	1
35	Response Surface Optimization of an Ammoniaâ€“Water Combined Power/Cooling Cycle Based on Exergetic Analysis. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	1.4	12
36	Maximum Power From Fluid Flow by Applying the First and Second Laws of Thermodynamics. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	1.4	25

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37	Characteristics of Auto-Ignition in Internal Combustion Engines Operated With Gaseous Fuels of Variable Methane Number. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	1.4	26
38	Measuring reliability of hybrid photovoltaic-wind energy systems: A new indicator. Renewable Energy, 2017, 106, 68-77.	4.3	82
39	Dynamic Model of Supercritical CO2 Brayton Cycles Driven by Concentrated Solar Power. , 2017, , .		2
40	Thermoeconomic Analysis of Liquid Air Energy Storage System. , 2017, , .		1
41	Heat Flux Distribution Over a Solar Central Receiver Using an Aiming Strategy Based on a Conventional Closed Control Loop. , 2017, , .		4
42	Ideal heat transfer conditions for tubular solar receivers with different design constraints. AIP Conference Proceedings, 2017, , .	0.3	9
43	Thermal and Exergetic Analysis of the Goswami Cycle Integrated with Mid-Grade Heat Sources. Entropy, 2017, 19, 416.	1.1	21
44	Energy, Exergy and Economic Evaluation Comparison of Small-Scale Single and Dual Pressure Organic Rankine Cycles Integrated with Low-Grade Heat Sources. Entropy, 2017, 19, 476.	1.1	32
45	Supercritical Fluids and Their Applications in Power Generation. Advances in Chemical and Materials Engineering Book Series, 2017, , 369-402.	0.2	0
46	Effect of Pressure Drop on Thermal and Exergetic Performance of Supercritical CO2 Recompression Brayton Cycle Integrated With a Central Receiver. , 2016, , .		0
47	A biomimetic approach for modeling cloud shading with dynamic behavior. Renewable Energy, 2016, 96, 157-166.	4.3	7
48	Thermodynamic feasibility of alternative supercritical CO2 Brayton cycles integrated with an ejector. Applied Energy, 2016, 169, 49-62.	5.1	60
49	Response Surface Based Optimization of Solar Collector Integrated With an Ammonia-Water Combined Power/Cooling Cycle Supported by Exergy Analysis. , 2015, , .		1
50	CONTINUOUS AND SEMICONTINUOUS REACTION SYSTEMS FOR HIGH-SOLIDS ENZYMATIC HYDROLYSIS OF LIGNOCELLULOSICS. Brazilian Journal of Chemical Engineering, 2015, 32, 805-819.	0.7	7
51	Effect of Pressure Drop and Reheating on Thermal and Exergetic Performance of Supercritical Carbon Dioxide Brayton Cycles Integrated With a Solar Central Receiver. Journal of Solar Energy Engineering, Transactions of the ASME, 2015, 137, .	1.1	26
52	An Exergy Analysis of Recompression Supercritical CO2 Cycles with and without Reheating. Energy Procedia, 2015, 69, 1181-1191.	1.8	31
53	Exergetic analysis of supercritical CO 2 Brayton cycles integrated with solar central receivers. Applied Energy, 2015, 148, 348-365.	5.1	245
54	Simulation and Optimization of a Parabolic Trough Solar Power Plant in the City of Barranquilla by Using System Advisor Model (SAM). Energy Procedia, 2014, 57, 497-506.	1.8	37

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55	Automatic control strategies for hybrid solar-fossil fuel power plants. Renewable Energy, 2014, 62, 424-431.	4.3	18
56	Exergy analysis of parabolic trough solar receiver. Applied Thermal Engineering, 2014, 67, 579-586.	3.0	114
57	Auto-ignition control in turbocharged internal combustion engines operating with gaseous fuels. Energy, 2014, 71, 137-147.	4.5	24
58	The potential of harnessing solar radiation in Iran: Generating solar maps and viability study of PV power plants. Renewable Energy, 2013, 53, 193-199.	4.3	103
59	Exergy analysis of a combined power and cooling cycle. Applied Thermal Engineering, 2013, 60, 164-171.	3.0	63
60	A review of combined power and cooling cycles. Wiley Interdisciplinary Reviews: Energy and Environment, 2013, 2, 534-547.	1.9	15
61	Behavior Prediction Model in Gas Fueled Spark Ignition Internal Combustion Engines Turbocharged for Genset Application. , 2013, , .		0
62	Multi-Objective Optimization of a Combined Power and Cooling Cycle for Low-Grade and Midgrade Heat Sources. Journal of Energy Resources Technology, Transactions of the ASME, 2012, 134, .	1.4	41
63	Performance Analysis of a Rankine Cycle Integrated With the Goswami Combined Power and Cooling Cycle. Journal of Energy Resources Technology, Transactions of the ASME, 2012, 134, .	1.4	22
64	Maximum Power From Fluid Flow: Results From the First and Second Laws of Thermodynamics. , 2012, , .		0
65	Heat transfer analysis of parabolic trough solar receiver. Applied Energy, 2011, 88, 5097-5110.	5.1	267
66	Analysis of a combined power and cooling cycle for low-grade heat sources. International Journal of Energy Research, 2011, 35, 1145-1157.	2.2	57
67	Performance Analysis of a Rankine-Goswami Combined Cycle. , 2011, , .		0
68	Multi-Objective Optimization of a Combined Power and Cooling Cycle for Low-Grade and Mid-Grade Heat Sources. , 2011, , .		24
69	Analysis of power and cooling cogeneration using ammonia-water mixture. Energy, 2010, 35, 4649-4657.	4.5	118
70	Parametric Study of a Combined Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources. , 2009, , .		0