

Alessio Sapienza

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78
papers

1,862
citations

27
h-index

40
g-index

80
ext. papers

2,187
ext. citations

5.6
avg, IF

5.38
L-index

#	Paper	IF	Citations
78	Experimental Validation and Numerical Simulation of a Hybrid Sensible-Latent Thermal Energy Storage for Hot Water Provision on Ships. <i>Energies</i> , 2022 , 15, 2596	3.1	1
77	Development and experimental testing of an integrated prototype based on Stirling, ORC and a latent thermal energy storage system for waste heat recovery in naval application. <i>Applied Energy</i> , 2022 , 311, 118673	10.7	3
76	Evaluation of ad/desorption dynamics of S-PEEK/Zeolite composite coatings by T-LTJ method. <i>Applied Thermal Engineering</i> , 2022 , 208, 118262	5.8	0
75	A New Methodological Approach for the Evaluation of Scaling Up a Latent Storage Module for Integration in Heat Pumps. <i>Energies</i> , 2021 , 14, 7470	3.1	
74	Life Cycle Assessment of an Innovative Hybrid Energy Storage System for Residential Buildings in Continental Climates. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 3820	2.6	1
73	Hybrid Cascade Heat Pump and Thermal-Electric Energy Storage System for Residential Buildings: Experimental Testing and Performance Analysis. <i>Energies</i> , 2021 , 14, 2580	3.1	7
72	Thermodynamic Performance of Adsorption Working Pairs for Low-Temperature Waste Heat Upgrading in Industrial Applications. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 3389	2.6	5
71	Plastic heat exchangers for adsorption cooling: Thermodynamic and dynamic performance. <i>Applied Thermal Engineering</i> , 2021 , 188, 116622	5.8	6
70	Life Cycle Assessment (LCA) of an Innovative Compact Hybrid Electrical-Thermal Storage System for Residential Buildings in Mediterranean Climate. <i>Sustainability</i> , 2021 , 13, 5322	3.6	2
69	A CCHP system based on ORC cogenerator and adsorption chiller experimental prototypes: Energy and economic analysis for NZEB applications. <i>Applied Thermal Engineering</i> , 2021 , 183, 116119	5.8	12
68	An Innovative Solar-Biomass Energy System to Increase the Share of Renewables in Office Buildings. <i>Energies</i> , 2021 , 14, 914	3.1	7
67	A Fast-Reduced Model for an Innovative Latent Thermal Energy Storage for Direct Integration in Heat Pumps. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 8972	2.6	2
66	Enabling Technologies for Sector Coupling: A Review on the Role of Heat Pumps and Thermal Energy Storage. <i>Energies</i> , 2021 , 14, 8195	3.1	2
65	Adsorption Cold Storage for Mobile Applications. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 2044	2.6	2
64	Performance Results of a Solar Adsorption Cooling and Heating Unit. <i>Energies</i> , 2020 , 13, 1630	3.1	8
63	Morphological and Structural Evaluation of Hydration/Dehydration Stages of MgSO ₄ Filled Composite Silicone Foam for Thermal Energy Storage Applications. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 453	2.6	10
62	Corrosion assessment of promising hydrated salts as sorption materials for thermal energy storage systems. <i>Renewable Energy</i> , 2020 , 150, 428-434	8.1	10

61	Thermal performance of a latent thermal energy storage for exploitation of renewables and waste heat: An experimental investigation based on an asymmetric plate heat exchanger. <i>Energy Conversion and Management</i> , 2019 , 200, 112121	10.6	12
60	Thermal performance of hybrid cement mortar-PCMs for warm climates application. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 193, 270-280	6.4	24
59	Water adsorption equilibrium and dynamics of LiCl/MWCNT/PVA composite for adsorptive heat storage. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 193, 133-140	6.4	20
58	Magnesium sulphate-silicone foam composites for thermochemical energy storage: Assessment of dehydration behaviour and mechanical stability. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 200, 109992	6.4	20
57	Hybrid Adsorption-Compression Systems for Air Conditioning in Efficient Buildings: Design through Validated Dynamic Models. <i>Energies</i> , 2019 , 12, 1161	3.1	17
56	Dynamics and useful heat of the discharge stage of adsorptive cycles for long term thermal storage. <i>Applied Energy</i> , 2019 , 248, 299-309	10.7	19
55	Components and design guidelines for solar cooling systems: The experience of ZEOSOL. <i>Renewable Energy</i> , 2019 , 141, 678-692	8.1	18
54	An experimental study on the corrosion sensitivity of metal alloys for usage in PCM thermal energy storages. <i>Renewable Energy</i> , 2019 , 138, 1018-1027	8.1	20
53	Recent advancements in sorption technology for solar thermal energy storage applications. <i>Solar Energy</i> , 2019 , 192, 69-105	6.8	42
52	Atomistic modelling of water transport and adsorption mechanisms in silicoaluminophosphate for thermal energy storage. <i>Applied Thermal Engineering</i> , 2019 , 160, 114075	5.8	18
51	A dynamic model of a solar driven trigeneration system based on micro-ORC and adsorption chiller prototypes 2019 ,		2
50	Experimental characterization of the LiCl/vermiculite composite for sorption heat storage applications. <i>International Journal of Refrigeration</i> , 2019 , 105, 92-100	3.8	26
49	Experimental Characterization of Latent Thermal Energy Storage Systems. <i>Green Energy and Technology</i> , 2019 , 173-200	0.6	
48	Experimental Characterization of Sorption Thermal Energy Storage Systems. <i>Green Energy and Technology</i> , 2019 , 201-225	0.6	
47	Sorption Thermal Energy Storage. <i>Green Energy and Technology</i> , 2019 , 33-54	0.6	0
46	Definition of Performance Indicators for Thermal Energy Storage. <i>Green Energy and Technology</i> , 2019 , 227-242	0.6	
45	Comparative analysis of thermal energy storage technologies through the definition of suitable key performance indicators. <i>Energy and Buildings</i> , 2019 , 185, 88-102	7	16
44	Latent Thermal Storage for Solar Cooling Applications: Materials Characterization and Numerical Optimization of Finned Storage Configurations. <i>Heat Transfer Engineering</i> , 2019 , 40, 1033-1048	1.7	10

43	Experimental and numerical analysis of a SOFC-CHP system with adsorption and hybrid chillers for telecommunication applications. <i>Applied Energy</i> , 2018 , 216, 620-633	10.7	40
42	Assessment of the hydration/dehydration behaviour of MgSO ₄ ·7H ₂ O filled cellular foams for sorption storage applications through morphological and thermo-gravimetric analyses. <i>Sustainable Materials and Technologies</i> , 2018 , 17, e00073	5.3	11
41	Adsorption Heat Storage: State-of-the-Art and Future Perspectives. <i>Nanomaterials</i> , 2018 , 8,	5.4	36
40	Optimization of an Adsorbent/Heat Exchanger Unit. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2018 , 69-87	0.4	
39	Adsorption-compression cascade cycles: An experimental study. <i>Energy Conversion and Management</i> , 2018 , 156, 365-375	10.6	38
38	MgSO ₄ ·7H ₂ O filled macro cellular foams: An innovative composite sorbent for thermo-chemical energy storage applications for solar buildings. <i>Solar Energy</i> , 2018 , 173, 1278-1286	6.8	37
37	Experimental investigation of a latent heat storage for solar cooling applications. <i>Applied Energy</i> , 2017 , 199, 347-358	10.7	37
36	On the impact of different management strategies on the performance of a two-bed activated carbon/ethanol refrigerator: An experimental study. <i>Energy Conversion and Management</i> , 2017 , 142, 322-333	10.6	23
35	Increasing the share of renewables through adsorption solar cooling: A validated case study. <i>Renewable Energy</i> , 2017 , 110, 126-140	8.1	27
34	Energy balance and life cycle assessment of small size residential solar heating and cooling systems equipped with adsorption chillers. <i>Solar Energy</i> , 2017 , 158, 543-558	6.8	23
33	Dynamic simulation of a multi-generation system, for electric and cooling energy provision, employing a SOFC cogenerator and an adsorption chiller. <i>Energy Procedia</i> , 2017 , 143, 416-423	2.3	4
32	A new management strategy based on the reallocation of ads-/desorption times: Experimental operation of a full-scale 3 beds adsorption chiller. <i>Applied Energy</i> , 2017 , 205, 1081-1090	10.7	30
31	Tri-generation for industrial applications: Development of a simulation model for a gasification-SOFC based system. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 27866-27883	6.7	37
30	Experimental testing of AQSOA FAM Z02/water adsorption system for heat and cold storage. <i>Applied Thermal Engineering</i> , 2017 , 124, 967-974	5.8	28
29	A simplified approach for modelling latent heat storages: Application and validation on two different fin-and-tubes heat exchangers. <i>Applied Thermal Engineering</i> , 2017 , 125, 41-52	5.8	15
28	Study of sorption systems for application on low-emission fishing vessels. <i>Energy</i> , 2017 , 134, 554-565	7.9	15
27	Identification and characterization of promising phase change materials for solar cooling applications. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 160, 225-232	6.4	43
26	Water - Silica Siogel working pair for adsorption chillers: Adsorption equilibrium and dynamics. <i>Renewable Energy</i> , 2017 , 110, 40-46	8.1	35

25	Experimental comparison of two heat exchanger concepts for latent heat storage applications. <i>Energy Procedia</i> , 2017 , 135, 183-192	2.3	10
24	Prediction of SCP and COP for adsorption heat pumps and chillers by combining the large-temperature-jump method and dynamic modeling. <i>Applied Thermal Engineering</i> , 2016 , 98, 900-909	5.8	43
23	Dramatic effect of residual gas on dynamics of isobaric adsorption stage of an adsorptive chiller. <i>Applied Thermal Engineering</i> , 2016 , 96, 385-390	5.8	16
22	Techno-Economic Analysis of Solar Cooling Systems for Residential Buildings in Italy. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2016 , 138, 031005	2.3	11
21	Study and Evaluation of Two Innovative Waste-heat Driven Refrigeration Systems for Fishing Vessels Applications. <i>Energy Procedia</i> , 2016 , 101, 838-845	2.3	1
20	A Simulation Tool to Evaluate the Feasibility of a gasification-I.C.E. System to Produce Heat and Power for Industrial Applications. <i>Energy Procedia</i> , 2016 , 101, 1256-1263	2.3	8
19	Dynamics study of ethanol adsorption on microporous activated carbon for adsorptive cooling applications. <i>Applied Thermal Engineering</i> , 2016 , 105, 28-38	5.8	20
18	Comparative analysis of promising adsorbent/adsorbate pairs for adsorptive heat pumping, air conditioning and refrigeration. <i>Applied Thermal Engineering</i> , 2016 , 104, 85-95	5.8	83
17	Design, realization and testing of an adsorption refrigerator based on activated carbon/ethanol working pair. <i>Applied Energy</i> , 2016 , 174, 15-24	10.7	50
16	Experimental testing of a hybrid sensible-latent heat storage system for domestic hot water applications. <i>Applied Energy</i> , 2016 , 183, 1157-1167	10.7	38
15	An innovative adsorptive chiller prototype based on 3 hybrid coated/granular adsorbers. <i>Applied Energy</i> , 2016 , 179, 929-938	10.7	59
14	SAPO-34 coated adsorbent heat exchanger for adsorption chillers. <i>Applied Thermal Engineering</i> , 2015 , 82, 1-7	5.8	148
13	Innovative Adsorption Chiller for Marine Applications: Design and Building. <i>Energy Procedia</i> , 2015 , 82, 432-438	2.3	4
12	Dynamic Simulation and Performance Analysis of Solar Cooling Systems in Italy. <i>Energy Procedia</i> , 2015 , 81, 1171-1183	2.3	9
11	Design of an Innovative Graphite Exchanger for Adsorption Heat Pumps and Chillers. <i>Energy Procedia</i> , 2015 , 81, 1030-1040	2.3	13
10	Novel experimental methodology for the characterization of thermodynamic performance of advanced working pairs for adsorptive heat transformers. <i>Applied Thermal Engineering</i> , 2014 , 72, 229-236	5.8	34
9	Adsorption cooling utilizing the LiBr/silica-Ethanol working pair: Dynamic optimization of the adsorber/heat exchanger unit. <i>Energy</i> , 2014 , 75, 390-399	7.9	27
8	Water adsorption dynamics on representative pieces of real adsorbers for adsorptive chillers. <i>Applied Energy</i> , 2014 , 134, 11-19	10.7	70

7	Experimental and theoretical analysis of the kinetic performance of an adsorbent coating composition for use in adsorption chillers and heat pumps. <i>Applied Thermal Engineering</i> , 2014 , 73, 1022-1031	5.8	47
6	Dynamic study of adsorbers by a new gravimetric version of the Large Temperature Jump method. <i>Applied Energy</i> , 2014 , 113, 1244-1251	10.7	60
5	Experimental testing of a lab-scale adsorption chiller using a novel selective water sorbent silica modified by calcium nitrate. <i>International Journal of Refrigeration</i> , 2012 , 35, 518-524	3.8	56
4	Development and lab-test of a mobile adsorption air-conditioner. <i>International Journal of Refrigeration</i> , 2012 , 35, 701-708	3.8	61
3	A dynamic multi-level model for adsorptive solar cooling. <i>Renewable Energy</i> , 2012 , 43, 301-312	8.1	23
2	Adsorption chilling driven by low temperature heat: New adsorbent and cycle optimization. <i>Applied Thermal Engineering</i> , 2012 , 32, 141-146	5.8	70
1	Influence of the management strategy and operating conditions on the performance of an adsorption chiller. <i>Energy</i> , 2011 , 36, 5532-5538	7.9	78