Camila Barreneche

List of Publications by Citations

275 papers	17,296 citations	60 h-index	126 g-index
280 ext. papers	20,107 ext. citations	7.3 avg, IF	7.26 L-index

#	Paper	IF	Citations
275	Review on thermal energy storage with phase change: materials, heat transfer analysis and applications. *Applied Thermal Engineering*, **2003**, 23, 251-283	5.8	3139
274	State of the art on high temperature thermal energy storage for power generation. Part 1—Concepts, materials and modellization. *Renewable and Sustainable Energy Reviews*, **2010**, 14, 31-55	16.2	1116
273	Materials used as PCM in thermal energy storage in buildings: A review. *Renewable and Sustainable Energy Reviews*, **2011**, 15, 1675-1695	16.2	1068
272	Use of microencapsulated PCM in concrete walls for energy savings. *Energy and Buildings*, **2007**, 39, 113-119	3.7	566
271	Heating and cooling energy trends and drivers in buildings. *Renewable and Sustainable Energy Reviews*, **2015**, 41, 85-98	16.2	464
270	State of the art on high-temperature thermal energy storage for power generation. Part 2—Case studies. *Renewable and Sustainable Energy Reviews*, **2010**, 14, 56-72	16.2	449
269	Phase change materials and thermal energy storage for buildings. *Energy and Buildings*, **2015**, 103, 414-419	3.7	361
268	Heat and cold storage with PCM. *Heat and Mass Transfer*, **2008**,	0.3	315
267	Types, methods, techniques, and applications for microencapsulated phase change materials (MPCM): A review. *Renewable and Sustainable Energy Reviews*, **2016**, 53, 1059-1075	16.2	286
266	Industrial waste heat recovery technologies: An economic analysis of heat transformation technologies. *Applied Energy*, **2015**, 151, 157-167	10.7	257
265	Thermochemical energy storage and conversion: A-state-of-the-art review of the experimental research under practical conditions. *Renewable and Sustainable Energy Reviews*, **2012**, 16, 5207-5224	16.2	248
264	Free-cooling of buildings with phase change materials. *International Journal of Refrigeration*, **2004**, 27, 839-849	3.8	241
263	Review of technology: Thermochemical energy storage for concentrated solar power plants. *Renewable and Sustainable Energy Reviews*, **2016**, 60, 909-929	16.2	218
262	Low carbon and low embodied energy materials in buildings: A review. *Renewable and Sustainable Energy Reviews*, **2013**, 23, 536-542	16.2	201
261	Thermal energy storage in building integrated thermal systems: A review. Part 1. active storage systems. *Renewable Energy*, **2016**, 88, 526-547	8.1	178
260	Utilization of phase change materials in solar domestic hot water systems. *Renewable Energy*, **2009**, 34, 1639-1643	8.1	175
259	Thermal energy storage in building integrated thermal systems: A review. Part 2. Integration as passive system. *Renewable Energy*, **2016**, 85, 1334-1356	8.1	155

258	Simulation-based optimization of PCM melting temperature to improve the energy performance in buildings. *Applied Energy*, **2017**, 202, 420-434	10.7	153
257	Improvement of a thermal energy storage using plates with paraffin–graphite composite. *International Journal of Heat and Mass Transfer*, **2005**, 48, 2561-2570	4.9	152
256	Stability of sugar alcohols as PCM for thermal energy storage. *Solar Energy Materials and Solar Cells*, **2014**, 126, 125-134	6.4	143
255	Determination of enthalpy–temperature curves of phase change materials with the temperature-history method: improvement to temperature dependent properties. *Measurement Science and Technology*, **2003**, 14, 184-189	2	142
254	Overview of thermal energy storage (TES) potential energy savings and climate change mitigation in Spain and Europe. *Applied Energy*, **2011**, 88, 2764-2774	10.7	129
253	Passive cooling of buildings with phase change materials using whole-building energy simulation tools: A review. *Renewable and Sustainable Energy Reviews*, **2017**, 80, 1239-1255	16.2	128
252	Thermal performance of sodium acetate trihydrate thickened with different materials as phase change energy storage material. *Applied Thermal Engineering*, **2003**, 23, 1697-1704	5.8	128
251	State of the art on gas–solid thermochemical energy storage systems and reactors for building applications. *Renewable and Sustainable Energy Reviews*, **2015**, 47, 386-398	16.2	126
250	Review on sorption materials and technologies for heat pumps and thermal energy storage. *Renewable Energy*, **2017**, 110, 3-39	8.1	126
249	Experimental evaluation at pilot plant scale of multiple PCMs (cascaded) vs. single PCM configuration for thermal energy storage. *Renewable Energy*, **2015**, 83, 729-736	8.1	116
248	Energy savings due to the use of PCM for relocatable lightweight buildings passive heating and cooling in different weather conditions. *Energy and Buildings*, **2016**, 129, 274-283	7	115
247	Review of the T-history method to determine thermophysical properties of phase change materials (PCM). *Renewable and Sustainable Energy Reviews*, **2013**, 26, 425-436	16.2	113
246	Economic impact of integrating PCM as passive system in buildings using Fanger comfort model. *Energy and Buildings*, **2016**, 112, 159-172	7	109
245	Intercomparative tests on phase change materials characterisation with differential scanning calorimeter. *Applied Energy*, **2013**, 109, 415-420	10.7	104
244	Mainstreaming commercial CSP systems: A technology review. *Renewable Energy*, **2019**, 140, 152-176	8.1	103
243	Study on differential scanning calorimetry analysis with two operation modes and organic and inorganic phase change material (PCM). *Thermochimica Acta*, **2013**, 553, 23-26	2.9	103
242	Experimental study of a ventilated facade with PCM during winter period. *Energy and Buildings*, **2013**, 58, 324-332	7	100
241	Modelization of a water tank including a PCM module. *Applied Thermal Engineering*, **2006**, 26, 1328-1333	5.8	85

240	Advances in the valorization of waste and by-product materials as thermal energy storage (TES) materials. *Renewable and Sustainable Energy Reviews*, **2016**, 59, 763-783	16.2	83
239	Review on system and materials requirements for high temperature thermal energy storage. Part 1: General requirements. *Renewable and Sustainable Energy Reviews*, **2017**, 75, 1320-1338	16.2	82
238	Review on the methodology used in thermal stability characterization of phase change materials. *Renewable and Sustainable Energy Reviews*, **2015**, 50, 665-685	16.2	82
237	Effect of microencapsulated phase change material in sandwich panels. *Renewable Energy*, **2010**, 35, 2370-2374	8.1	82
236	Thermal analysis of a ventilated facade with PCM for cooling applications. *Energy and Buildings*, **2013**, 65, 508-515	7	81
235	Lithium in thermal energy storage: A state-of-the-art review. *Renewable and Sustainable Energy Reviews*, **2015**, 42, 1106-1112	16.2	77
234	Thermal energy storage (TES) with phase change materials (PCM) in solar power plants (CSP). Concept and plant performance. *Applied Energy*, **2019**, 254, 113646	10.7	77
233	Use of microencapsulated PCM in buildings and the effect of adding awnings. *Energy and Buildings*, **2012**, 44, 88-93	7	77
232	Thermal energy storage technologies for concentrated solar power □A review from a materials perspective. *Renewable Energy*, **2020**, 156, 1244-1265	8.1	77
231	PCM thermal energy storage tanks in heat pump system for space cooling. *Energy and Buildings*, **2014**, 82, 399-405	7	76
230	Corrosion of metal and metal alloy containers in contact with phase change materials (PCM) for potential heating and cooling applications. *Applied Energy*, **2014**, 125, 238-245	10.7	74
229	Considerations for the use of metal alloys as phase change materials for high temperature applications. *Solar Energy Materials and Solar Cells*, **2017**, 171, 275-281	6.4	72
228	Multifunctional smart concretes with novel phase change materials: Mechanical and thermo-energy investigation. *Applied Energy*, **2018**, 212, 1448-1461	10.7	69
227	Corrosion of metal containers for use in PCM energy storage. *Renewable Energy*, **2015**, 76, 465-469	8.1	68
226	Latent thermal energy storage for solar process heat applications at medium-high temperatures □ A review. *Solar Energy*, **2019**, 192, 3-34	6.8	66
225	Unconventional experimental technologies available for phase change materials (PCM) characterization. Part 1. Thermophysical properties. *Renewable and Sustainable Energy Reviews*, **2015**, 43, 1399-1414	16.2	65
224	Corrosion of metals and salt hydrates used for thermochemical energy storage. *Renewable Energy*, **2015**, 75, 519-523	8.1	64
223	Measurement of enthalpy curves of phase change materials via DSC and T-History: When are both methods needed to estimate the behaviour of the bulk material in applications?. *Thermochimica Acta*, **2014**, 596, 79-88	2.9	62

222	Improvement of the thermal inertia of building materials incorporating PCM. Evaluation in the macroscale. *Applied Energy*, **2013**, 109, 428-432	10.7	62
221	Technological options and strategies towards zero energy buildings contributing to climate change mitigation: A systematic review. *Energy and Buildings*, **2020**, 219, 110009	7	62
220	New proposed methodology for specific heat capacity determination of materials for thermal energy storage (TES) by DSC. *Journal of Energy Storage*, **2017**, 11, 1-6	7.8	60
219	Thermal conductivity measurement techniques for characterizing thermal energy storage materials A review. *Renewable and Sustainable Energy Reviews*, **2019**, 108, 32-52	16.2	60
218	Modeling phase change materials behavior in building applications: Comments on material characterization and model validation. *Renewable Energy*, **2014**, 61, 132-135	8.1	60
217	Review of Solar Thermal Storage Techniques and Associated Heat Transfer Technologies. *Proceedings of the IEEE*, **2012**, 100, 525-538	14.3	60
216	Numerical study on the thermal performance of a ventilated facade with PCM. *Applied Thermal Engineering*, **2013**, 61, 372-380	5.8	60
215	Corrosion of metal and polymer containers for use in PCM cold storage. *Applied Energy*, **2013**, 109, 449-453	10.7	59
214	Thermal analysis of a low temperature storage unit using phase change materials without refrigeration system. *International Journal of Refrigeration*, **2012**, 35, 1709-1714	3.8	59
213	Material selection and testing for thermal energy storage in solar cooling. *Renewable Energy*, **2013**, 57, 366-371	8.1	59
212	Acoustic insulation capacity of Vertical Greenery Systems for buildings. *Applied Acoustics*, **2016**, 110, 218-226	3.1	59
211	PCM incorporation in a concrete core slab as a thermal storage and supply system: Proof of concept. *Energy and Buildings*, **2015**, 103, 70-82	7	58
210	Evaluation of the environmental impact of experimental buildings with different constructive systems using Material Flow Analysis and Life Cycle Assessment. *Applied Energy*, **2013**, 109, 544-552	10.7	58
209	Life Cycle Assessment of alveolar brick construction system incorporating phase change materials (PCMs). *Applied Energy*, **2013**, 101, 600-608	10.7	58
208	Physico-chemical and mechanical properties of microencapsulated phase change material. *Applied Energy*, **2013**, 109, 441-448	10.7	58
207	Comparison of three different devices available in Spain to test thermal properties of building materials including phase change materials. *Applied Energy*, **2013**, 109, 421-427	10.7	55
206	Evaluation of the environmental impact of experimental cubicles using Life Cycle Assessment: A highlight on the manufacturing phase. *Applied Energy*, **2012**, 92, 534-544	10.7	54
205	Corrosion testing device for in-situ corrosion characterization in operational molten salts storage tanks: A516 Gr70 carbon steel performance under molten salts exposure. *Solar Energy Materials and Solar Cells*, **2016**, 157, 383-392	6.4	51

204	Life Cycle Assessment of experimental cubicles including PCM manufactured from natural resources (esters): A theoretical study. *Renewable Energy*, **2013**, 51, 398-403	8.1	49
203	Key performance indicators in thermal energy storage: Survey and assessment. *Renewable Energy*, **2015**, 83, 820-827	8.1	48
202	Materials and system requirements of high temperature thermal energy storage systems: A review. Part 2: Thermal conductivity enhancement techniques. *Renewable and Sustainable Energy Reviews*, **2016**, 60, 1584-1601	16.2	48
201	Thermophysical characterization of a by-product from the non-metallic industry as inorganic PCM. *Solar Energy Materials and Solar Cells*, **2015**, 132, 385-391	6.4	46
200	Thermal behaviour of d-mannitol when used as PCM: Comparison of results obtained by DSC and in a thermal energy storage unit at pilot plant scale. *Applied Energy*, **2013**, 111, 1107-1113	10.7	46
199	Effect of d-mannitol polymorphism in its thermal energy storage capacity when it is used as PCM. *Solar Energy*, **2013**, 94, 344-351	6.8	45
198	Investigating greenhouse challenge from growing trends of electricity consumption through home appliances in buildings. *Renewable and Sustainable Energy Reviews*, **2014**, 36, 188-193	16.2	44
197	Heating and cooling energy trends and drivers in Europe. *Energy*, **2017**, 119, 425-434	7.9	43
196	Experimental evaluation of the use of fins and metal wool as heat transfer enhancement techniques in a latent heat thermal energy storage system. *Energy Conversion and Management*, **2019**, 184, 530-538	10.6	43
195	Embodied energy in thermal energy storage (TES) systems for high temperature applications. *Applied Energy*, **2015**, 137, 793-799	10.7	43
194	Life cycle assessment of a ventilated facade with PCM in its air chamber. *Solar Energy*, **2014**, 104, 115-123	3.8	42
193	Multi-objective optimisation of bio-based thermal insulation materials in building envelopes considering condensation risk. *Applied Energy*, **2018**, 224, 602-614	10.7	42
192	CO 2 mitigation accounting for Thermal Energy Storage (TES) case studies. *Applied Energy*, **2015**, 155, 365-377	10.7	41
191	High temperature systems using solid particles as TES and HTF material: A review. *Applied Energy*, **2018**, 213, 100-111	10.7	41
190	Thermal stress reduction in cool roof membranes using phase change materials (PCM). *Energy and Buildings*, **2018**, 158, 1097-1105	7	41
189	Health hazard, cycling and thermal stability as key parameters when selecting a suitable phase change material (PCM). *Thermochimica Acta*, **2016**, 627-629, 39-47	2.9	41
188	Thermophysical characterization and thermal cycling stability of two TCM: CaCl2 and zeolite. *Applied Energy*, **2015**, 137, 726-730	10.7	41
187	Review of Reactors with Potential Use in Thermochemical Energy Storage in Concentrated Solar Power Plants. *Energies*, **2018**, 11, 2358	3.1	41

186	Characterization of wastes based on inorganic double salt hydrates as potential thermal energy storage materials. *Solar Energy Materials and Solar Cells*, **2017**, 170, 149-159	6.4	39
185	New database to select phase change materials: Chemical nature, properties, and applications. *Journal of Energy Storage*, **2015**, 3, 18-24	7.8	39
184	Development and characterization of new shape-stabilized phase change material (PCM)Polymer including electrical arc furnace dust (EAFD), for acoustic and thermal comfort in buildings. *Energy and Buildings*, **2013**, 61, 210-214	7	39
183	Requirements to consider when choosing a thermochemical material for solar energy storage. *Solar Energy*, **2013**, 97, 398-404	6.8	39
182	Polymeric interlayer materials for laminated glass: A review. *Construction and Building Materials*, **2020**, 230, 116897	6.7	38
181	Experimental study on the selection of phase change materials for low temperature applications. *Renewable Energy*, **2013**, 57, 130-136	8.1	37
180	High density polyethylene spheres with PCM for domestic hot water applications: Water tank and laboratory scale study. *Journal of Energy Storage*, **2017**, 13, 262-267	7.8	37
179	Thermochemical energy storage by consecutive reactions for higher efficient concentrated solar power plants (CSP): Proof of concept. *Applied Energy*, **2017**, 185, 836-845	10.7	37
178	Advances Toward a Net-Zero Global Building Sector. *Annual Review of Environment and Resources*, **2020**, 45, 227-269	17.2	37
177	Affordable construction towards sustainable buildings: review on embodied energy in building materials. *Current Opinion in Environmental Sustainability*, **2013**, 5, 229-236	7.2	36
176	In situ thermal and acoustic performance and environmental impact of the introduction of a shape-stabilized PCM layer for building applications. *Renewable Energy*, **2016**, 85, 281-286	8.1	35
175	Thermal Energy Storage Implementation Using Phase Change Materials for Solar Cooling and Refrigeration Applications. *Energy Procedia*, **2012**, 30, 947-956	2.3	35
174	Behaviour of a concrete wall containing micro-encapsulated PCM after a decade of its construction. *Solar Energy*, **2020**, 200, 108-113	6.8	35
173	Benchmarking of useful phase change materials for a building application. *Energy and Buildings*, **2019**, 182, 45-50	7	35
172	Experimental Evaluation of a Paraffin as Phase Change Material for Thermal Energy Storage in Laboratory Equipment and in a Shell-and-Tube Heat Exchanger. *Applied Sciences (Switzerland)*, **2016**, 6, 112	2.6	33
171	Process integration of thermal energy storage systems Evaluation methodology and case studies. *Applied Energy*, **2018**, 230, 750-760	10.7	33
170	Thermal storage in a MW scale. Molten salt solar thermal pilot facility: Plant description and commissioning experiences. *Renewable Energy*, **2016**, 99, 852-866	8.1	32
169	Where is Thermal Energy Storage (TES) research going? A bibliometric analysis. *Solar Energy*, **2020**, 200, 37-50	6.8	32

168	Introduction to thermal energy storage (TES) systems **2015**, 1-28		31
167	Optimization of three new compositions of stabilized rammed earth incorporating PCM: Thermal properties characterization and LCA. *Construction and Building Materials*, **2013**, 47, 872-878	6.7	29
166	New equipment for testing steady and transient thermal performance of multilayered building envelopes with PCM. *Energy and Buildings*, **2011**, 43, 3704-3709	7	29
165	Evaluation of energy density as performance indicator for thermal energy storage at material and system levels. *Applied Energy*, **2019**, 235, 954-962	10.7	29
164	Corrosion monitoring and mitigation techniques on advanced thermal energy storage materials for CSP plants. *Solar Energy Materials and Solar Cells*, **2019**, 192, 179-187	6.4	29
163	Recent developments of thermal energy storage applications in the built environment: A bibliometric analysis and systematic review. *Applied Thermal Engineering*, **2021**, 189, 116666	5.8	28
162	Molten salt facilities, lessons learnt at pilot plant scale to guarantee commercial plants; heat losses evaluation and correction. *Renewable Energy*, **2016**, 94, 175-185	8.1	28
161	Reduction of the subcooling of bischofite with the use of nucleatings agents. *Solar Energy Materials and Solar Cells*, **2016**, 157, 1011-1018	6.4	28
160	Embodied energy and embodied carbon of structural building materials: Worldwide progress and barriers through literature map analysis. *Energy and Buildings*, **2021**, 231, 110612	7	28
159	Critical analysis of the T-history method: A fundamental approach. *Thermochimica Acta*, **2017**, 650, 95-105	2.9	27
158	The connection between the heat storage capability of PCM as a material property and their performance in real scale applications. *Journal of Energy Storage*, **2017**, 13, 35-39	7.8	27
157	Experimental validation of the exact analytical solution to the steady periodic heat transfer problem in a PCM layer. *Energy*, **2017**, 140, 1131-1147	7.9	27
156	Preparation and Characterization of Inorganic PCM Microcapsules by Fluidized Bed Method. *Materials*, **2016**, 9,	3.5	27
155	Fatty acid eutectic mixtures and derivatives from non-edible animal fat as phase change materials. *RSC Advances*, **2017**, 7, 24133-24139	3.7	26
154	Development of new nano-enhanced phase change materials (NEPCM) to improve energy efficiency in buildings: Lab-scale characterization. *Energy and Buildings*, **2019**, 192, 75-83	7	26
153	Innovative cool roofing membrane with integrated phase change materials: Experimental characterization of morphological, thermal and optic-energy behavior. *Energy and Buildings*, **2016**, 112, 40-48	7	26
152	Thermal Stability Test of Sugar Alcohols as Phase Change Materials for Medium Temperature Energy Storage Application. *Energy Procedia*, **2014**, 48, 436-439	2.3	26
151	New Database on Phase Change Materials for Thermal Energy Storage in Buildings to Help PCM Selection. *Energy Procedia*, **2014**, 57, 2408-2415	2.3	26

150	Life cycle costing as a bottom line for the life cycle sustainability assessment in the solar energy sector: A review. *Solar Energy*, **2019**, 192, 238-262	6.8	26
149	Phase Change Material Selection for Thermal Processes Working under Partial Load Operating Conditions in the Temperature Range between 120 and 200 °C. *Applied Sciences (Switzerland)*, **2017**, 7, 722	2.6	25
148	Bibliometric analysis of smart control applications in thermal energy storage systems. A model predictive control approach. *Journal of Energy Storage*, **2020**, 32, 101704	7.8	25
147	Compatibility of materials for macroencapsulation of inorganic phase change materials: Experimental corrosion study. *Applied Thermal Engineering*, **2016**, 107, 410-419	5.8	25
146	Materials selection for thermal energy storage systems in parabolic trough collector solar facilities using high chloride content nitrate salts. *Solar Energy Materials and Solar Cells*, **2017**, 163, 134-147	6.4	23
145	Use of polyethylene glycol for the improvement of the cycling stability of bischofite as thermal energy storage material. *Applied Energy*, **2015**, 154, 616-621	10.7	23
144	Use of partial load operating conditions for latent thermal energy storage management. *Applied Energy*, **2018**, 216, 234-242	10.7	23
143	Experimental evaluation of a concrete core slab with phase change materials for cooling purposes. *Energy and Buildings*, **2016**, 116, 411-419	7	23
142	Unconventional experimental technologies used for phase change materials (PCM) characterization: part 2 – morphological and structural characterization, physico-chemical stability and mechanical properties. *Renewable and Sustainable Energy Reviews*, **2015**, 43, 1415-1426	16.2	22
141	Comparison of past projections of global and regional primary and final energy consumption with historical data. *Renewable and Sustainable Energy Reviews*, **2018**, 82, 681-688	16.2	22
140	Enthalpy-temperature plots to compare calorimetric measurements of phase change materials at different sample scales. *Journal of Energy Storage*, **2018**, 15, 32-38	7.8	22
139	Review of solid particle materials for heat transfer fluid and thermal energy storage in solar thermal power plants. *Energy Storage*, **2019**, 1, e63	2.8	21
138	Influence of nanoparticle morphology and its dispersion ability regarding thermal properties of water used as phase change material. *Applied Thermal Engineering*, **2018**, 128, 121-126	5.8	21
137	Use of multi-layered PCM gypsums to improve fire response. Physical, thermal and mechanical characterization. *Energy and Buildings*, **2016**, 127, 1-9	7	21
136	Phase Change Material Selection for Thermal Energy Storage at High Temperature Range between 210 °C and 270 °C. *Energies*, **2018**, 11, 861	3.1	21
135	Materials selection of steam-phase change material (PCM) heat exchanger for thermal energy storage systems in direct steam generation facilities. *Solar Energy Materials and Solar Cells*, **2017**, 159, 526-535	6.4	21
134	Comparison of phase change slurries: Physicochemical and thermal properties. *Energy*, **2015**, 87, 223-227	7.9	21
133	Stabilized rammed earth incorporating PCM: Optimization and improvement of thermal properties and Life Cycle Assessment. *Energy Procedia*, **2012**, 30, 461-470	2.3	21

132	A comprehensive review on sub-zero temperature cold thermal energy storage materials, technologies, and applications: State of the art and recent developments. *Applied Energy*, **2021**, 288, 116555	10.7	21
131	Study of corrosion by Dynamic Gravimetric Analysis (DGA) methodology. Influence of chloride content in solar salt. *Solar Energy Materials and Solar Cells*, **2016**, 157, 526-532	6.4	21
130	Magnesium sulphate-silicone foam composites for thermochemical energy storage: Assessment of dehydration behaviour and mechanical stability. *Solar Energy Materials and Solar Cells*, **2019**, 200, 109992	6.4	20
129	Selection of the Appropriate Phase Change Material for Two Innovative Compact Energy Storage Systems in Residential Buildings. *Applied Sciences (Switzerland)*, **2020**, 10, 2116	2.6	20
128	Use of by-products as additives in adobe bricks: Mechanical properties characterisation. *Construction and Building Materials*, **2016**, 108, 105-111	6.7	20
127	New methodology developed for the differential scanning calorimetry analysis of polymeric matrixes incorporating phase change materials. *Measurement Science and Technology*, **2012**, 23, 085606	2	20
126	Sustainable adobe bricks with seagrass fibres. Mechanical and thermal properties characterization. *Construction and Building Materials*, **2020**, 239, 117669	6.7	20
125	Influence of the heat transfer fluid in a CSP plant molten salts charging process. *Renewable Energy*, **2017**, 113, 148-158	8.1	19
124	Service life of the dwelling stock in Spain. *International Journal of Life Cycle Assessment*, **2013**, 18, 919-925	4.6	19
123	Parameters to take into account when developing a new thermochemical energy storage system. *Energy Procedia*, **2012**, 30, 380-387	2.3	19
122	Systematic review on the use of heat pipes in latent heat thermal energy storage tanks. *Journal of Energy Storage*, **2020**, 32, 101733	7.8	18
121	Thermal characterization of different substrates under dried conditions for extensive green roofs. *Energy and Buildings*, **2017**, 144, 175-180	7	17
120	Effect of nanoparticles in molten salts □MD simulations and experimental study. *Renewable Energy*, **2020**, 152, 208-216	8.1	17
119	Physicochemical and Thermal Study of a MPCM of PMMA Shell and Paraffin Wax as a Core. *Energy Procedia*, **2014**, 48, 347-354	2.3	17
118	Experimental results of mechanical, adhesive, and laminated connections for laminated glass elements □A review. *Engineering Structures*, **2019**, 180, 192-204	4.7	17
117	Evaluation of volume change in phase change materials during their phase transition. *Journal of Energy Storage*, **2020**, 28, 101206	7.8	16
116	Corrosion Test of Salt Hydrates and Vessel Metals for Thermochemical Energy Storage. *Energy Procedia*, **2014**, 48, 431-435	2.3	16
115	Assessing the Potentiality of Animal Fat Based-Bio Phase Change Materials (PCM) for Building Applications: An Innovative Multipurpose Thermal Investigation. *Energies*, **2019**, 12, 1111	3.1	15

114	PCM/wood composite to store thermal energy in passive building envelopes. *IOP Conference Series: Materials Science and Engineering*, **2017**, 251, 012111	0.4	15
113	Thermal behaviour of insulation and phase change materials in buildings with internal heat loads: experimental study. *Energy Efficiency*, **2015**, 8, 895-904	3	14
112	New formulation and characterization of enhanced bulk-organic phase change materials. *Energy and Buildings*, **2018**, 167, 38-48	7	14
111	Use of PCM□polymer composite dense sheet including EAFD in constructive systems. *Energy and Buildings*, **2014**, 68, 1-6	7	14
110	Composite gypsum containing fatty-ester PCM to be used as constructive system: Thermophysical characterization of two shape-stabilized formulations. *Energy and Buildings*, **2015**, 86, 190-193	7	13
109	Mechanical response evaluation of microcapsules from different slurries. *Renewable Energy*, **2016**, 85, 732-739	8.1	13
108	Study of the Thermal Properties and the Fire Performance of Flame Retardant-Organic PCM in Bulk Form. *Materials*, **2018**, 11,	3.5	13
107	A correlation of the convective heat transfer coefficient between an air flow and a phase change material plate. *Applied Thermal Engineering*, **2013**, 51, 1245-1254	5.8	13
106	Solar Absorption in a Ventilated Facade with PCM. Experimental Results. *Energy Procedia*, **2012**, 30, 986-994	2.3	13
105	IEA SHC Task 42 / ECES Annex 29 WG A1: Engineering and Processing of PCMs, TCMs and Sorption Materials. *Energy Procedia*, **2016**, 91, 207-217	2.3	13
104	Characterization and testing of solid particles to be used in CSP plants: Aging and fluidization tests. *Solar Energy Materials and Solar Cells*, **2021**, 219, 110793	6.4	13
103	Perspectives on thermal energy storage research. *Energy*, **2021**, 231, 120943	7.9	13
102	Thermal performance evaluation of bischofite at pilot plant scale. *Applied Energy*, **2015**, 155, 826-833	10.7	12
101	Hybrid 3 in 1 thermal energy storage system □Outlook for a novel storage strategy. *Applied Energy*, **2020**, 274, 115024	10.7	12
100	Method for controlling mean droplet size in the manufacture of phase inversion bituminous emulsions. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2017**, 527, 49-54	5.1	12
99	Building thermal storage technology: Compensating renewable energy fluctuations. *Journal of Energy Storage*, **2020**, 27, 101147	7.8	12
98	Performance Study of Direct Integration of Phase Change Material into an Innovative Evaporator of a Simple Vapour Compression System. *Applied Sciences (Switzerland)*, **2020**, 10, 4649	2.6	12
97	Empirical equations for viscosity and specific heat capacity determination of fatty acids. *Journal of Energy Storage*, **2017**, 10, 20-27	7.8	11

96	Empirical equation to estimate viscosity of paraffin. *Journal of Energy Storage*, **2017**, 11, 154-161	7.8	11
95	Asphalt emulsion formulation: State of the art of formulation, properties and results of HIPR emulsions. *Construction and Building Materials*, **2019**, 212, 19-26	6.7	11
94	Innovative composite sorbent for thermal energy storage based on a SrBr2□6H2O filled silicone composite foam. *Journal of Energy Storage*, **2019**, 26, 100954	7.8	11
93	Tensile test on interlayer materials for laminated glass under diverse ageing conditions and strain rates. *Construction and Building Materials*, **2020**, 243, 118230	6.7	10
92	Corrosion evaluation and prevention of reactor materials to contain thermochemical material for thermal energy storage. *Applied Thermal Engineering*, **2016**, 94, 355-363	5.8	10
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