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## A Comprehensive Review of Thermal Energy Storage

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498	The use of heat from the CO2 compression system for production of system heat. <b>2018</b> , 49, 00135		
497	Energy and Exergy analysis of solar water heating system integrated with phase change material (PCM). <b>2018</b> ,		4
496	Event-based MPC for defocusing and power production of a parabolic trough plant under power limitation. <b>2018</b> , 174, 570-581		9
495	Community energy storage: A responsible innovation towards a sustainable energy system?. <b>2018</b> , 231, 570-585		93
494	Hydro-pneumatic storage for wind-diesel electricity generation in remote sites. <b>2018</b> , 231, 1159-1178		6
493	Potential of Thermal Energy Storage Using Coconut Oil for Air Temperature Control. <b>2018</b> , 8, 95		22
492	Synthesis and Investigation of Thermal Properties of Highly Pure Carboxylic Fatty Esters to Be Used as PCM. <b>2018</b> , 8, 1069		20
491	Synthesis of Me Doped Mg(OH)₂ Materials for Thermochemical Heat Storage. <b>2018</b> , 8,		5
490	Experimental and Numerical Study of an Electrical Thermal Storage Device for Space Heating. <b>2018</b> , 11, 2180		5
489	Study on Application Potential of Seasonal Thermal Energy Storage-Hybrid Ground Source Heat Pump in Taiwan Taking Experiments in Tainan as Examples. <i>Sustainability</i> , <b>2018</b> , 10, 1746	3.6	3
488	Thermal balance of large scale parabolic trough plants: A case study. <b>2019</b> , 190, 69-81		5
487	Intermolecular London Dispersion Interactions of Azobenzene Switches for Tuning Molecular Solar Thermal Energy Storage Systems. <b>2019</b> , 84, 1145-1148		12
486	Numerical Modeling of the Melting Process in a Shell and Coil Tube Ice Storage System for Air-Conditioning Application. <b>2019</b> , 9, 2726		21
485	Site Selection of Aquifer Thermal Energy Storage Systems in Shallow Groundwater Conditions. <b>2019</b> , 11, 1393		4
484	A generalized approach for selecting solar energy system configurations for a wide range of applications. <b>2019</b> , 6, 1		3
483	Seasonal Solar Thermal Energy Storage. <b>2019</b> ,		1

482	Synthesis of organic phase change materials (PCM) for energy storage applications: A review. <b>2019</b> , 20, 100399	72
481	Kinetics of freezing and melting of encapsulated phase change materials with effective convection: Experiments and simulations. <b>2019</b> , 76, 909-924	2
480	Solar distillation using three different phase change materials stored in a copper cylinder. <b>2019</b> , 5, 1532-1542	15
479	Studies on the possible application of heat storage devices for powering the ORC (Organic Rankine Cycle) systems. <b>2019</b> , 116, 00035	
478	Integration of Different Individual Heating Scenarios and Energy Storages into Hybrid Energy System Model of China for 2030. <b>2019</b> , 12, 2083	15
477	Numerical simulation of a phase change material melting process. <b>2019</b> , 112, 01010	
476	Experimental study and analysis of solar still desalination using phase change materials. <b>2019</b> , 26, 100959	36
475	Neopentyl Glycol as Active Supporting Media in Shape-Stabilized PCMs. <b>2019</b> , 12,	10
474	Photovoltaic panel integrated with phase change materials (PV-PCM): technology overview and materials selection. <b>2019</b> , 116, 109406	58
473	Evaluation of temperature profiling quality in determining energy efficiencies of borehole heat exchangers. <b>2019</b> , 78, 129-137	15
472	Heat Transfer in Latent High-Temperature Thermal Energy Storage SystemsExperimental Investigation. <b>2019</b> , 12, 1264	4
471	Comparison of Direct and Indirect Active Thermal Energy Storage Strategies for Large-Scale Solar Heating Systems. <b>2019</b> , 12, 1948	6
470	Damage-Free Solar Dewatering of Micro-Algal Concentrates via Multifunctional Hierarchical Porous Graphene. <b>2019</b> , 3, 1900045	3
469	Biodegradable Polymeric Solid Framework-Based Organic Phase-Change Materials for Thermal Energy Storage. <b>2019</b> , 58, 10652-10677	39
468	Exergy Analysis for Utilizing Latent Energy of Thermal Energy Storage System in District Heating. <b>2019</b> , 12, 1391	3
467	Novel paraffin/ethylene propylene diene monomer phase change latex with excellent stability and low viscosity. <b>2019</b> , 200, 109957	4
466	Experimental studies on the effect of using phase change material in a salinity-gradient solar pond under a solar simulator. <b>2019</b> , 186, 335-346	26
465	Comparison of sintering condition and radio frequency plasma discharge on the conversion of coal/biomass fly ash into high-temperature thermal energy storage material. <b>2019</b> , 192, 180-187	6

464	Optimal correlation of non-renewable and renewable generating systems for producing hydrogen and methane by power to gas process. <b>2019</b> , 44, 9210-9219	29
463	Hydrated Salt/Graphite/Polyelectrolyte Organic-Inorganic Hybrids for Efficient Thermochemical Storage. <b>2019</b> , 9,	12
462	Sustainability perspectives- a review for solar photovoltaic trends and growth opportunities. <b>2019</b> , 227, 589-612	81
461	Performance of force circulation cross-matrix absorber solar heater integrated with latent heat energy storage material. <b>2019</b> , 469, 012107	1
460	Adaptive incremental state space MPC for collector defocusing of a parabolic trough plant. <b>2019</b> , 184, 105-114	10
459	A facile microencapsulation of phase change materials within silicone-based shells by using glass capillary devices. <b>2019</b> , 567, 297-303	9
458	Performance Analysis of a Solar DHW System with Adsorption Module Operating in Different World Locations. <b>2019</b> , 9, 5480	0
457	Development and Analysis of a Multi-Node Dynamic Model for the Simulation of Stratified Thermal Energy Storage. <b>2019</b> , 12, 4275	9
456	. <b>2019</b> ,	1
455	Thermally-pressurized sorption heat storage cycle with low charging temperature. <b>2019</b> , 189, 116304	8
454	Sensible Thermal Energy Storage at High Temperatures. <b>2019</b> , 3-7	
453	Experimental studies on performance augmentation of single hole cored brick sensible heat storage system using turbulence inducers. <b>2019</b> , 136, 345-354	2
452	An updated review of energy storage systems: Classification and applications in distributed generation power systems incorporating renewable energy resources. <b>2019</b> , 43, 6171-6210	80
451	Turning industrial aerobic fermentation plants into thermal power stations. <b>2019</b> , 43, 544-551	3
450	Recent developments in phase change materials for energy storage applications: A review. <b>2019</b> , 129, 491-523	542
449	Experimental study on the influence of preparation parameters on strengthening stability of phase change materials (PCMs). <b>2020</b> , 146, 1867-1878	6
448	Phase change materials (PCMs) for improving solar still productivity: a review. <b>2020</b> , 139, 1585-1617	38
447	Investigation of latent heat storage system using graphite micro-particle enhancement. <b>2020</b> , 139, 2181-2186	10

446	Water heating by Parabolic Trough Collector with storage in the Ouargla region of Algerian Sahara. <b>2020</b> , 24, 137-139	1
445	Energy storage technologies. <b>2020</b> , 125-165	8
444	A review of energy storage types, applications and recent developments. <b>2020</b> , 27, 101047	361
443	Conversion of A medium heavy heating oil tank into A heat storage tank. <b>2020</b> , 56, 871-890	0
442	Graphene aerogel-based phase changing composites for thermal energy storage systems. <b>2020</b> , 55, 4127-4156	28
441	Trombe walls with phase change materials: A review. <b>2020</b> , 2, e123	10
440	Numerical analysis of geometrical and process parameters influence on temperature stratification in a large volumetric heat storage tank. <b>2020</b> , 194, 116878	11
439	Cross effect between temperature and consolidation on the flow behavior of granular materials in thermal energy storage systems. <b>2020</b> , 363, 135-145	4
438	Dynamic Multi-Carrier Microgrid Deployment Under Uncertainty. <b>2020</b> , 260, 114293	29
437	A new method to identify the optimal temperature of latent-heat thermal-energy storage systems for power generation from waste heat. <b>2020</b> , 149, 119111	16
436	Non-Newtonian behavior of an electrical and magnetizable phase change material in a filled enclosure in the presence of a non-uniform magnetic field. <b>2020</b> , 110, 104437	14
435	Role of particle size on the cohesive behavior of limestone powders at high temperature. <b>2020</b> , 391, 123520	2
434	Carnot battery technology: A state-of-the-art review. <b>2020</b> , 32, 101756	32
433	Simulation and comparative assessment of heating systems with tank thermal energy storage [A Swiss case study. <b>2020</b> , 32, 101810	6
432	Thermal Energy Storage for Solar Energy Utilization: Fundamentals and Applications. <b>2020</b> ,	0
431	Review on sensible thermal energy storage for industrial solar applications and sustainability aspects. <b>2020</b> , 209, 135-169	77
430	Optimal sizing and placement of energy storage system in power grids: A state-of-the-art one-stop handbook. <b>2020</b> , 32, 101814	18
429	A systemic approach to analyze integrated energy system modeling tools: A review of national models. <b>2020</b> , 133, 110195	42

428	Analysis of a Thermal Energy Storage Tank in a Large District Cooling System: A Case Study. <b>2020</b> , 8, 1158	6
427	Optimized phasing of the development of a regional energy system. <b>2020</b> , 206, 118129	3
426	Numerical analysis of solidification of PCM in a closed vertical cylinder for thermal energy storage applications. <b>2020</b> , 56, 2909-2922	5
425	A Comprehensive Review on Energy Storage Systems: Types, Comparison, Current Scenario, Applications, Barriers, and Potential Solutions, Policies, and Future Prospects. <b>2020</b> , 13, 3651	47
424	Thermal and Thermochemical Energy Conversion and Storage. <b>2020</b> , 257-301	
423	Current progress in heat exchangers with phase change materials (PCMs): A comprehensive investigation. <b>2020</b> , 219-230	
422	Transient phase change heat transfer in a metal foam-phase change material heatsink subject to a pulse heat flux. <b>2020</b> , 31, 101701	6
421	Managing Power Demand from Air Conditioning Benefits Solar PV in India Scenarios for 2040. <b>2020</b> , 13, 2223	3
420	Life Cycle Assessment of a Reversible Heat Pump Organic Rankine Cycle Heat Storage System with Geothermal Heat Supply. <b>2020</b> , 13, 3253	9
419	Performance of an Adsorptive Heat-Moisture Regenerator Based on Silica Gel Sodium Sulphate. <i>Sustainability</i> , <b>2020</b> , 12, 5611	3.6 1
418	Paraffin wax as self-sealing insulation material of seasonal sensible heat storage systems-A laboratory study. <b>2020</b> , 15, e0236056	0
417	References. <b>2020</b> , 235-245	
416	Economic and Environmental Policy Analysis for Emission-Neutral Multi-Carrier Microgrid Deployment. <b>2020</b> , 277, 115609	16
415	A review on thermal energy storage using phase change materials in passive building applications. <b>2020</b> , 32, 101563	32
414	Exploration of Basalt Glasses as High-Temperature Sensible Heat Storage Materials. <b>2020</b> , 5, 19236-19246	7
413	Sustainability Outcomes of Green Processes in Relation to Industry 4.0 in Manufacturing: Systematic Review. <i>Sustainability</i> , <b>2020</b> , 12, 5968	3.6 28
412	Predictive Control-Oriented Models of a Domestic Air-to-Water Heat Pump Under Variable Conditions. <b>2020</b> , 5, 5363-5369	2
411	Parabolic Trough Collector Defocusing Analysis: Two control stages vs four control stages. <b>2020</b> , 209, 30-41	2

410	Preparation and thermophysical properties of three-dimensional attapulgite based composite phase change materials. <b>2020</b> , 32, 101847		3
409	Zonal and Nodal Models of Energy Market in European Union. <b>2020</b> , 13, 4182		40
408	The Optimal Allocation and Operation of an Energy Storage System with High Penetration Grid-Connected Photovoltaic Systems. <i>Sustainability</i> , <b>2020</b> , 12, 6154	3.6	4
407	Understanding the Specific Heat Enhancement in Metal-Containing Nanofluids for Thermal Energy Storage: Experimental and Ab Initio Evidence for a Strong Interfacial Layering Effect. <b>2020</b> , 3, 9246-9256		8
406	The Application of Molten Salt Energy Storage to Advance the Transition from Coal to Green Energy Power Systems. <b>2020</b> , 13, 2222		4
405	Numerical Modeling of Thermal Storage Performance of Encapsulated PCM Particles in an Unstructured Packed Bed. <b>2020</b> , 13, 6413		9
404	Thermodynamic Analysis of a High-Temperature Latent Heat Thermal Energy Storage System. <b>2020</b> , 13, 6634		0
403	Numerical Simulation of the Physical-Chemical-Thermal Processes During Hydration Reaction of the Calcium Oxide/Calcium Hydroxide System in an Indirect Reactor. <b>2020</b> , 1		3
402	Computational study of performance of cascaded multi-layered packed-bed thermal energy storage for high temperature applications. <b>2020</b> , 32, 101930		6
401	Assessment of the Thermal Properties of Aromatic Esters as Novel Phase Change Materials. <b>2020</b> , 10, 919		2
400	The Influence of the Shape of Granite on the Heat Storage Process in a Rock Bed. <b>2020</b> , 13, 5662		2
399	Techno-Economic Assessment of Destabilized Li Hydride Systems for High Temperature Thermal Energy Storage. <b>2020</b> , 8, 30		1
398	Hybrid 3 in 1 thermal energy storage system - Outlook for a novel storage strategy. <b>2020</b> , 274, 115024		12
397	New hybrid graphene/inorganic salt composites for thermochemical energy storage: Synthesis, cyclability investigation and heat exchanger metal corrosion protection performance. <b>2020</b> , 215, 110601		13
396	Experimental and modelling studies on the possible application of heat storage devices for powering the ORC (organic rankine cycle) systems. <b>2020</b> , 19, 100586		9
395	Simulation and experimental study of thermal storage systems for district cooling system under commercial operating conditions. <b>2020</b> , 203, 117781		7
394	Thermal Energy Storage Options for Concentrated Solar Power Plants in the United Arab Emirates. <b>2020</b> ,		1
393	A Review of Thermochemical Energy Storage Systems for Power Grid Support. <b>2020</b> , 10, 3142		22

392	Succinct Review on State-of-art Carbon-based Phase Change Material for Solar Thermal Storage Applications. <b>2020</b> , 152, 02008		0
391	Phase change materials for pavement applications: A review. <b>2020</b> , 247, 118553		41
390	Smart Home Innovative Heat Test Analysis for Heat Storage and Conductivity Coefficients. <i>Sustainability</i> , <b>2020</b> , 12, 1414	3.6	1
389	A Multicriteria Methodology to Select the Best Installation of Solar Thermal Power in a Family House. <b>2020</b> , 13, 1047		5
388	Data-Driven Robust Optimal Operation of Thermal Energy Storage in Industrial Clusters. <b>2020</b> , 8, 194		8
387	Selection Principles and Investigation of Substances for Synthesis of Composite Medium-Temperature Phase Change Materials for Space Heating and Domestic Hot Water. <b>2020</b> , 989, 165-171		
386	Scalable Pickering Stabilization to Design Cellulose Nanofiber-wrapped Block Copolymer Microspheres for Thermal Energy Storage. <b>2020</b> , 8, 4623-4632		12
385	Preparation of a low-temperature nanofluid phase change material: MgCl <sub>2</sub> H <sub>2</sub> O eutectic salt solution system with multi-walled carbon nanotubes (MWCNTs). <b>2020</b> , 113, 136-144		28
384	Evaluation of volume change in phase change materials during their phase transition. <b>2020</b> , 28, 101206		16
383	Phase Change Material (PCM) Microcapsules for Thermal Energy Storage. <b>2020</b> , 2020, 1-20		50
382	Thermal Energy Storage for Grid Applications: Current Status and Emerging Trends. <b>2020</b> , 13, 340		42
381	Optimal Management of the Energy Flows of Interconnected Residential Users. <b>2020</b> , 13, 1507		3
380	A robust thermal-energy-storage property associated with electronic phase transitions for quadruple perovskite oxides. <b>2020</b> , 56, 5500-5503		7
379	Optimization of solar thermal systems with a thermocline storage tank. <b>2020</b> , 22, 1069-1084		10
378	A comprehensive review of solar only and hybrid solar driven multigeneration systems: Classifications, benefits, design and prospective. <b>2020</b> , 268, 114940		32
377	Nanoparticles enhanced phase change materials (NePCMs)-A recent review. <b>2020</b> , 176, 115305		108
376	Heat Capacity and Thermal Damping Properties of Spin-Crossover Molecules: A New Look at an Old Topic. <b>2020</b> , 32, e2000987		12
375	Metal Hydrides and Related Materials. Energy Carriers for Novel Hydrogen and Electrochemical Storage. <b>2020</b> , 124, 7599-7607		24

- 374 Numerical simulation of underground seasonal cold energy storage for a 10 MW solar thermal power plant in north-western China using TRNSYS. **2021**, 15, 328-344 1
- 373 Role of energy storage systems in energy transition from fossil fuels to renewables. **2021**, 3, e135 52
- 372 Energy management of islanded microgrid by coordinated application of thermal and electrical energy storage systems. **2021**, 45, 5369-5385 3
- 371 Thermal energy systems. **2021**, 13-44 2
- 370 Optimal Control Strategies for Seasonal Thermal Energy Storage Systems With Market Interaction. **2021**, 29, 1891-1906 5
- 369 Economic and financial appraisal of novel large-scale energy storage technologies. **2021**, 214, 118954 27
- 368 Power-to-methanol: The role of process flexibility in the integration of variable renewable energy into chemical production. **2021**, 228, 113673 22
- 367 Latent heat thermal energy storage: A bibliometric analysis explicating the paradigm from 2000-2019. **2021**, 33, 102027 7
- 366 Global prospects and challenges of latent heat thermal energy storage: a review. **2021**, 23, 531-559 7
- 365 Recent advances in net-zero energy greenhouses and adapted thermal energy storage systems. **2021**, 43, 100940 17
- 364 Experimental investigation on single-medium stratified thermal energy storage system. **2021**, 164, 146-155 6
- 363 Thermoeconomic investigation for a multi-stage solar-thermal vacuum membrane distillation system for coastal cities. **2021**, 498, 114797 7
- 362 Emerging applications of phase change materials: A concise review of recent advances. **2021**, 50, 1443-1493 8
- 361 Case Studies of Latent Heat Storage with Phase-Change Materials in the Agroindustry Value Chain. **2021**, 456-465
- 360 Introduction. **2021**, 1-23
- 359 A Novel Pythagorean Fuzzy MULTIMOORA Applied to the Evaluation of Energy Storage Technologies. **2021**, 273-312
- 358 Integration and Optimal Control of MicroCSP with Building HVAC Systems: Review and Future Directions. **2021**, 14, 730 1
- 357 Applications of wastes based on inorganic salts as low-cost thermal energy storage materials. **2021**, 429-465

- 356 Studies on the thermochemical energy storage in the coal ash zeolite/water system. 1032, 012033 o
- 355 Thermal Energy Storage. **2021**, 559-627 o
- 354 Impact of internal heat gain profiles on the design cooling capacity of landscaped offices. **2021**, 246, 07003 o
- 353 Thermal Energy Storage for Solar Energy. **2021**, 167-215 o
- 352 Exploring the Relationship Between Heat Absorption and Material Thermal Parameters for Thermal Energy Storage. **2021**, 27-32
- 351 Nanoencapsulated phase change materials for solar thermal energy storage. **2021**, 467-494 o
- 350 Experimental Investigation of a Sensible Thermal Energy Storage System. **2021**, 365-382
- 349 Integrating Mobile Thermal Energy Storage (M-TES) in the City of Surrey's District Energy Network: A Techno-Economic Analysis. **2021**, 11, 1279 o
- 348 Energy consumption and environmental consequences. **2021**, 1-55
- 347 A review on passive and active solar still using phase change materials. **2021**, 46, 10433-10438 2
- 346 Heat Transfer Fluids in Concentrating Solar Power Systems: Principle and Practice. **2021**, 279-314
- 345 Use of Phase Change Materials for Energy-Efficient Buildings in India. **2021**, 305-327
- 344 Recent progress in thermochemical heat storage. **2021**, 281-310
- 343 State-of-the-Art Materials for Adsorptive Heat Energy Conversion. **2021**, 1-24
- 342 Active TES With PCM for Refrigeration Applications. **2021**, 2
- 341 Phase Changing Materials Based Super Capacitors. **2021**,
- 340 Ultrahigh temperature sensible heat storage and heat transfer fluids. **2021**, 57-84 o
- 339 Stratification Analysis and Behaviour of a Real Industrial Thermocline Thermal Energy Storage Tank for Cogeneration Purposes. **2021**, 9, 120 2

338	Review on thermal energy storage and eutectic nitrate salt melting point. <b>2021</b> , 1078, 012034		0
337	Mathematical Modeling of Solar Energy based Thermal Energy Storage for House Heating in Winter. <b>2021</b> , 34, 102203		4
336	Life Cycle Assessment and Economic Energy Efficiency of a Solar Thermal Installation in a Family House. <i>Sustainability</i> , <b>2021</b> , 13, 2305	3.6	4
335	Recent Advances in Membrane-Based Electrochemical Hydrogen Separation: A Review. <b>2021</b> , 11,		10
334	Towards Phase Change Materials for Thermal Energy Storage: Classification, Improvements and Applications in the Building Sector. <b>2021</b> , 11, 1490		9
333	An Overview on Functional Integration of Hybrid Renewable Energy Systems in Multi-Energy Buildings. <b>2021</b> , 14, 1078		9
332	Analysis and Simulation of an Absorption Cooling System Using a Latent Heat Storage Tank and a Tempering Valve. <b>2021</b> , 14, 1376		4
331	High-capacity high-power thermal energy storage using solid-solid martensitic transformations. <b>2021</b> , 187, 116490		4
330	Use of cellulose nanofibril (CNF)/silver nanoparticles (AgNPs) composite in salt hydrate phase change material for efficient thermal energy storage. <b>2021</b> , 174, 402-412		5
329	Evaluation of various large-scale energy storage technologies for flexible operation of existing pressurized water reactors. <b>2021</b> , 53, 2427-2427		4
328	Energy Efficient Seawater Desalination: Strategies and Opportunities. <b>2021</b> , 9, 2100008		1
327	Current Progress and Future Prospects of Agriculture Technology: Gateway to Sustainable Agriculture. <i>Sustainability</i> , <b>2021</b> , 13, 4883	3.6	19
326	Experimental evaluation of heat transfer performance under natural and forced convection around a phase change material encapsulated in various shapes. <b>2021</b> , 44, 101025		3
325	A comprehensive review on sub-zero temperature cold thermal energy storage materials, technologies, and applications: State of the art and recent developments. <b>2021</b> , 288, 116555		21
324	Techno-economic aspects of increasing primary energy efficiency in industrial branches using thermal energy storage. <b>2021</b> , 36, 102344		2
323	Cold thermal energy storage by encapsulated phase change materials system using hybrid nanofluids as the heat transfer fluid. <b>2021</b> , 45, 15265-15283		2
322	A Review on Thermal Energy Modelling for Optimal Microgrids Management. <b>2021</b> , 1, 63-76		1
321	A novel approach for sizing thermal and electrical energy storage systems for energy management of islanded residential microgrid. <b>2021</b> , 238, 110850		3

3 <sup>20</sup>	Analysis of District Heating and Cooling Energy Systems in Spain: Resources, Technology and Management. <i>Sustainability</i> , <b>2021</b> , 13, 5442	3.6	3
3 <sup>19</sup>	Phase change materials for improved performance and continuous output in stepped solar stills equipped with HDH. <b>2021</b> , 47, 5064-5064		1
3 <sup>18</sup>	Leveraging Machine Learning (Artificial Neural Networks) for Enhancing Performance and Reliability of Thermal Energy Storage Platforms Utilizing Phase Change Materials. <b>2022</b> , 144,		3
3 <sup>17</sup>	Multi-functional three-phase sorption solar thermal energy storage cycles for cooling, heating, and heat transformer. <b>2021</b> , 189, 116765		11
3 <sup>16</sup>	Parametric Study of the Solidification Process Between Vertical Parallel Plates of a Storage System. <b>2021</b> , 143,		0
3 <sup>15</sup>	Form-stabled phase change material loaded with Ag NPs onto encapsulated n-tertracosane@SiO <sub>2</sub> , and thermal energy storage behavior. <b>2021</b> , 97, 267-279		6
3 <sup>14</sup>	Survey Summary on Salts Hydrates and Composites Used in Thermochemical Sorption Heat Storage: A Review. <b>2021</b> , 14, 3105		9
3 <sup>13</sup>	Metal hydrides for thermochemical energy storage applications. <b>2021</b> , 45, 14465-14492		5
3 <sup>12</sup>	Enhanced thermal energy storage performance of salt hydrate phase change material: Effect of cellulose nanofibril and graphene nanoplatelet. <b>2021</b> , 225, 111028		15
3 <sup>11</sup>	Nano-Enhanced Phase Change Materials in Latent Heat Thermal Energy Storage Systems: A Review. <b>2021</b> , 14, 3821		8
3 <sup>10</sup>	Carbon nanotubes/paraffin wax nanocomposite for improving the performance of a solar air heating system. <b>2021</b> , 23, 100877		13
3 <sup>09</sup>	The social dimension of renewable energy storage in electricity markets: The role of partnerships. <b>2021</b> , 76, 102072		4
3 <sup>08</sup>	Melting performance enhancement of phase change material with magnetic particles under rotating magnetic field. <b>2021</b> , 38, 102540		2
3 <sup>07</sup>	Low-grade heat from solar ponds: trends, perspectives, and prospects. 1-30		5
3 <sup>06</sup>	Asphaltenes as novel thermal conductivity enhancers for liquid paraffin: Insight from in silico modeling. <b>2021</b> , 117112		2
3 <sup>05</sup>	Development and Characterization of Concrete/PCM/Diatomite Composites for Thermal Energy Storage in CSP/CST Applications. <b>2021</b> , 14, 4410		3
3 <sup>04</sup>	Conceptual Modelling of Seasonal Energy Storage Technologies for Residential Heating in a Dutch town Best. <b>2021</b> , 31, 47-63		
3 <sup>03</sup>	Charge and discharge profiles of repurposed LiFePO batteries based on the UL 1974 standard. <b>2021</b> , 8, 165		3

- 302 Progresses in Analytical Design of Distribution Grids and Energy Storage. **2021**, 14, 4270 o
- 301 Performance investigations on hydrogen-based thermochemical energy storage system through finite volume method and thermodynamic simulation. **2021**, 45, 20156 1
- 300 Salt Hydrates for Thermochemical Storage of Solar Energy: Modeling the Case Study of Calcium Oxalate Monohydrate Dehydration/Rehydration under Suspension Reactor Conditions. **2021**, 60, 11357-11372<sup>1</sup>
- 299 Empowering smart grid: A comprehensive review of energy storage technology and application with renewable energy integration. **2021**, 39, 102591 44
- 298 Demonstration of Phase Change Thermal Energy Storage in Zinc Oxide Microencapsulated Sodium Nitrate. **2021**, 11, 6234 o
- 297 Experimental and model validation of a phase change material heat exchanger integrated into a real building. **2021**, 45, 18222-18236 1
- 296 Consecutive charging and discharging of a PCM-based plate heat exchanger with zigzag configuration. **2021**, 193, 116970 17
- 295 Model Predictive Control of Solar PV-Powered Ice-Storage Air-Conditioning System Considering Forecast Uncertainties. **2021**, 12, 1672-1683 o
- 294 A numerical study on effects of axially and radially cascaded phase change material on charging/discharging time of paraffin based packed bed thermal energy storage. e273 o
- 293 Modeling and optimization of an integrated multi-generation solar system with variable heat to power ratio for supplying residential and industrial demands. **2021**, 174, 786-798 1
- 292 Thermal Insulation of Building Envelope for Ecological Conservation. **2022**, 185-204
- 291 Capabilities of  $\text{Al}_2\text{O}_3$ ,  $\text{Al}_2\text{O}_3$ , and bentonite dry powders used in flat plate solar collector for thermal energy storage. **2021**, 173, 704-720 8
- 290 Energy flexibility of residential buildings: A systematic review of characterization and quantification methods and applications. **2021**, 3, 100054 24
- 289 Optimal Sizing of a Grid Independent Renewable Heating System for Building Decarbonisation. **2021**, 9, o
- 288 Membrane distillation crystallization of ammonium nitrate solutions to enable sustainable cold storage: Electrical conductivity as an in-situ saturation indicator. **2021**, 631, 119321 3
- 287 Towards a novel holistic design of organic Rankine cycle (ORC) systems operating under heat source fluctuations and intermittency. **2021**, 147, 111207 16
- 286 Evolutionary Design of Heat Exchangers in Thermal Energy Storage.
- 285 Performance assessment of convective heat transfer in tubes with a temperature difference in the high-temperature solar power generation system. e16010

284	Operation strategy of multiple stage independent phase change material modules integrated with thermal storage. <b>2021</b> , 41, 102898	0
283	Review of Technologies and Recent Advances in Low-Temperature Sorption Thermal Storage Systems. <b>2021</b> , 14, 6052	0
282	A review of thermal energy storage technologies for seasonal loops. <b>2021</b> , 239, 122207	15
281	Non-Newtonian phase change study of nano-enhanced n-octadecane comprising mesoporous silica in a porous medium. <b>2021</b> , 97, 463-482	1
280	Introduction to Energy Storage Systems. <b>2021</b> , 1-31	
279	The thermal energy storage potential of underground tunnels used as heat exchangers. <b>2021</b> , 176, 214-227	4
278	High-temperature latent thermal storage system for solar power: Materials, concepts, and challenges. <b>2021</b> , 4, 100155	3
277	Potential of nanoparticles in solar thermal energy storage. <b>2021</b> , 25, 101003	2
276	A pinch-based multi-energy targeting framework for combined chilling heating power microgrid of urban-industrial symbiosis. <b>2021</b> , 150, 111482	5
275	Heat transfer enhancement in latent heat thermal energy storage unit using a combination of fins and rotational mechanisms. <b>2021</b> , 179, 121667	6
274	Experimental and modeling approach to heat and mass transfer in a porous bed of a rock-bed heat accumulator. <b>2021</b> , 179, 121654	0
273	Melting and solidification characteristics of cylindrical encapsulated phase change materials. <b>2021</b> , 43, 103104	5
272	Biofuel trigeneration with energy storage for heating, cooling and power on farms. <b>2021</b> , 7, 5394-5405	0
271	Energy storage selection for sustainable energy development: The multi-criteria utility analysis based on the ideal solutions and integer geometric programming for coordination degree. <b>2021</b> , 91, 106675	3
270	Recent Advances on Enhanced Thermal Conduction in Phase Change Materials using Carbon Nanomaterials. <b>2021</b> , 43, 103173	7
269	Li-ion battery technology for grid application. <b>2021</b> , 511, 230419	10
268	Performance improvement of solar chimneys using phase change materials: A review. <b>2021</b> , 228, 68-88	6
267	Residential demand-side management using integrated solar-powered heat pump and thermal storage. <b>2021</b> , 250, 111234	4

265	A review on the outlook of thermal management of photovoltaic panel using phase change material. <b>2021</b> , 2, 100033	5
264	Performance analysis of packed bed latent heat storage system for high-temperature thermal energy storage using pellets composed of micro-encapsulated phase change material. <b>2022</b> , 238, 121746	5
263	Effect of Static Magnetic Field on Nucleation of Cobalt Nitrate Hexahydrate. <b>2021</b> , 24,	0
262	Classifications of Thermal Energy Storage Materials. <b>2021</b> , 450-450	0
261	Experimental investigation of the thermal energy storage performance of a phase change material (PCM) based heat exchanger. <b>2021</b> , 56, 133-139	0
260	Laboratory Testing of Small-Scale Active Solar Façade Module. <b>2021</b> , 25, 455-466	1
259	Experimental and Theoretical Investigation of the Natural Convection Heat Transfer Coefficient in Phase Change Material (PCM) Based Fin-and-Tube Heat Exchanger. <b>2021</b> , 14, 716	7
258	Patent-based trend analysis for advanced thermal energy storage technologies and their applications. <b>2020</b> , 44, 5093-5116	5
257	The Role of Energy Storage and Carbon Capture in Electricity Markets. <b>2020</b> , 1-37	1
256	An operational strategy for district heating networks: application of data-driven heat load forecasts. <b>2020</b> , 3,	1
255	Energy Efficiency Modernizations at the Industrial Plant: A Case Study. <b>2020</b> , 27, 183-193	2
254	A critical review on thermal energy storage materials and systems for solar applications. <b>2019</b> , 7, 507-526	22
253	Sizing the thermal energy storage (TES) device for organic Rankine cycle (ORC) power systems. <b>2021</b> , 345, 00018	1
252	Probing the secrets of hydrogen bonding in organic salt phase change materials: the origins of a high enthalpy of fusion.	2
251	Review on Microstructural and Ion-Conductivity Properties of Biodegradable Starch-Based Solid Polymer Electrolyte Membranes. 2100170	1
250	Effect of geometrical design on the latent heat cooling properties of a lightweight two-phase composite. <b>2021</b> , 119, 141908	1
249	Experimental investigation of nano/microencapsulated phase change material emulsion based building wall paint for solar thermal energy storage. <b>2021</b> , 28, 1	2

- 248 PEMFC Poly-Generation Systems: Developments, Merits, and Challenges. *Sustainability*, **2021**, 13, 11696 3.6 2
- 247 A Comparative Study of High-Temperature Latent Heat Storage Systems. **2021**, 14, 6886 1
- 246 The effect of the salt precursor on the particle morphology and thermal properties of magnesium hydroxide for thermochemical energy storage. **2021**, 44, 103335 1
- 245 Solar thermoelectric lab-scale system with sensible/latent heat storage for reversible power generation and warm water heating. **2021**, 44, 103278
- 244 Heat transfer augmentation in single and multiple (cascade) phase change materials based thermal energy storage: Research progress, challenges, and recommendations. **2021**, 48, 101633 1
- 243 Termal Enerji Depolama Sistemlerinin Uygulanabilirliğinin İncelenmesi. **2019**, 2, 1357-1368
- 242 Al-Si alloy for thermal storage applications-a review. **2019**, 1378, 042038 1
- 241 Prospects for the Improvement of Energy Performance in Agroindustry Using Phase Change Materials. **2020**, 277-289
- 240 Labeling of Installed Heating Appliances in Residential Buildings: An Energy Labeling Methodology for Improving Consumers Awareness. **2021**, 14, 7044
- 239 Feasibility Study of Cooling a Bulk Acoustic Wave Resonator by Nanoparticle Enhanced Phase Change Material. **2021**, 7, 144
- 238 A new method for energy management of residential microgrid for sizing electrical and thermal storage systems. **2021**, 76, 103482 4
- 237 Thermal Properties of Shape-Stabilized Phase Change Materials Based on Porous Supports for Thermal Energy Storage. **2021**, 14, 7151 0
- 236 The effect of an Al-based cellular structure on the thermal performance of a zeolite-based hybrid heat accumulator. **2021**, 129, 105724 2
- 235 Thermal Energy Storage By Phase Change Materials Suitable For Solar Water Heaters: An Updated Review. **2020**, 0
- 234 A comprehensive review on phase change materials for heat storage applications: Development, characterization, thermal and chemical stability. **2022**, 234, 111392 15
- 233 Solid Waste Materials for Energy Storage Applications. **2022**, 470-482
- 232 THERMAL ENERGY STORAGE DEVICE USING PARAFFIN WAX AS PHASE CHANGE MATERIAL. **2020**, 8, 22
- 231 Performance investigation of the hydrogen-based energy storage system employing high-pressure metal hydride pair. 1-13 0

230	Efficient Phase-Change Polymer Composite Film from Emulsion Gels Stabilized by Cellulose Nanofiber-Based Amphiphiles.		0
229	Visualized investigation of the onset of flow boiling dynamic instabilities in a horizontal arranged tube under a high-temperature thermal storage boundary condition. <b>2021</b> ,		0
228	Optimal operation and scheduling of residential energy hubs simultaneously considering optimal sizing of heat storage and battery storage systems. <b>2021</b> , 44, 103481		0
227	Analogy Between Thermal, Mechanical, and Electrical Energy Storage Systems. <b>2021</b> ,		0
226	Simulation of the heat accumulator operation of the internal combustion engine preheating system. <b>2021</b> , 323, 00023		
225	Strategies to reduce the flammability of organic phase change Materials: A review. <b>2022</b> , 231, 115-128		8
224	A review of novel methods and current developments of phase change materials in the building walls for cooling applications. <b>2022</b> , 49, 101709		0
223	Design considerations for net zero energy buildings for intensive, confined poultry production: A review of current insights, knowledge gaps, and future directions. <b>2022</b> , 154, 111874		3
222	Low temperature phase change materials for thermal energy storage: Current status and computational perspectives. <b>2022</b> , 50, 101808		0
221	A Review of Solar Still Assessment with Various PCM Materials. 14-18		
220	Numerical simulation effect of PCM storage on flat storage on flat plate solar heater in different kinds of weather conditions. 1		0
219	Research on the thermal performance of interlayer ventilated PCM component coupled with solar air collector. <b>2021</b> , 111698		1
218	Efficiency Enhancement of an Ammonia-Based Solar Thermochemical Energy Storage System Implemented with Hydrogen Permeation Membrane. <i>Sustainability</i> , <b>2021</b> , 13, 12783	3.6	0
217	Drying kinetics and economic analysis of bitter melon flakes drying inside hybrid greenhouse dryer. <b>2021</b> , 1		3
216	KPI Evaluation Framework and Tools Performance: A Case Study from the inteGRIDy Project. <b>2021</b> , 11, 23		
215	Thermal properties of phase change materials reinforced with multi-dimensional carbon nanomaterials. <b>2021</b> , 183, 122166		0
214	Design improvement of a laboratory prototype for efficiency evaluation of solar thermal water heating system using phase change material (PCMs). <b>2021</b> , 12, 100301		5
213	Thermodynamics of Sensible Thermal Energy Storage Systems. <b>2021</b> ,		

- 212 Effective PCM, insulation, natural and/or night ventilation techniques to enhance the thermal performance of buildings located in various climates [A review]. **2022**, 258, 111840 9
- 211 Life-Cycle Assessment of phase-change materials in buildings: A review. **2022**, 336, 130359 0
- 210 Thermophysical properties of Nano-enhanced phase change materials for domestic heating applications. **2022**, 46, 103794 3
- 209 On the use of advanced nuclear cogeneration plant integrated into latent heat storage for district heating. **2022**, 50, 101838
- 208 How can combined heating and cooling networks benefit from thermal energy storage? Minimizing lifetime cost for different scenarios. **2022**, 243, 123112 0
- 207 Application of phase change material in improving trombe wall efficiency: An up-to-date and comprehensive overview. **2022**, 258, 111824 7
- 206 Integration of Thermal Panels in the District Heating of Bucharest, Romania. **2021**,
- 205 Triazine derivatives as organic phase change materials with inherently low flammability. 2
- 204 Loading of Silver Nanoparticles onto Silica Sand Surface and Simulating of Heat Dissipation for Therapeutic Heat Applications. 1051, 3-9
- 203 Energy Savings Analysis for Operation of Steam Cushion System for Sensible Thermal Energy Storages. **2022**, 15, 286 1
- 202 Sizing the Thermal Energy Storage Device Utilizing Phase Change Material (PCM) for Low-Temperature Organic Rankine Cycle Systems Employing Selected Hydrocarbons. **2022**, 15, 956 2
- 201 PolyE-IL, an Efficient and Recyclable Bronsted Acid Catalyst for Conversion of Rice Straw into Levulinic and Other Organic Acids. **2022**, 36, 1592-1603 0
- 200 Solar-driven water treatment: generation II technologies. **2022**, 119-200 0
- 199 PERFORMANCE EVALUATION OF ADVANCED ENERGY STORAGE SYSTEMS: A REVIEW. 0958305X2210747 0
- 198 Assessment of Metallurgical Slags as Solar Heat Absorber Particles. **2022**, 12, 121
- 197 State of the Art of Technologies in Adaptive Dynamic Building Envelopes (ADBEs). **2022**, 15, 829 2
- 196 Room-Temperature Hydrogen Absorption of Ti with Robust Surface Coated by Hexagonal Boron Nitride. **2022**, 5, 951-957
- 195 An overview on multi-carrier energy networks: From a concept to future trends and challenges. **2022**, 47, 6164-6186 0

194	Optimization of shell and tube thermal energy storage unit based on the effects of adding fins, nanoparticles and rotational mechanism. <b>2022</b> , 331, 129922	1
193	Energy storage on demand: Thermal energy storage development, materials, design, and integration challenges. <b>2022</b> , 46, 192-222	6
192	Phase Change Materials in Metal Casting Processes: A Critical Review and Future Possibilities. <b>2022</b> , 2022, 1-14	1
191	Observation of gunpowder-like thermochemical responses of a thermal energy storage system based on KNO <sub>3</sub> /NaNO <sub>3</sub> /Graphite exposed to a heat transfer fluid. <b>2022</b> , 207, 118215	0
190	Optimization of Nano-Additive Characteristics to Improve the Efficiency of a Shell and Tube Thermal Energy Storage System Using a Hybrid Procedure: DOE, ANN, MCDM, MOO, and CFD Modeling. <b>2021</b> , 9, 3235	5
189	Virtual Power Plants and Integrated Energy System: Current Status and Future Prospects. <b>2021</b> , 1-31	
188	Solar thermal energy storage. <b>2022</b> , 215-236	
187	Temperature distribution in a concrete slab with sand, gravel and radiant barrier. <b>2022</b> , 55, 399-403	
186	Dynamic Modelling of a Thermal Solar Heating System. <b>2022</b> , 743-750	
185	Characterization System for Heat-Energy to Electric-Energy Conversion from Concrete by Means of a Thermoelectric Module.. <b>2022</b> , 22,	0
184	Modeling of a Grid-Independent Set-Up of a PV/SOFC Micro-CHP System Combined with a Seasonal Energy Storage for Residential Applications. <b>2022</b> , 15, 1388	4
183	A Case Study for Decentralized Heat Storage Solutions in the Agroindustry Sector Using Phase Change Materials. <b>2022</b> , 4, 255-278	0
182	Integration of Solar Process Heat in Industries: A Review. <b>2022</b> , 4, 97-131	2
181	Designing and Characterization of Low-Temperature Eutectic Phase Change Materials Based on Alkanes. <b>2022</b> , 67, 727-738	0
180	Waste Heat Recovery in Automotive Paint Shop via Organic Rankine Cycle and Thermal Energy Storage SystemBelected Thermodynamic Issues. <b>2022</b> , 15, 2239	0
179	Utilization of waste apricot kernel shell derived-activated carbon as carrier framework for effective shape-stabilization and thermal conductivity enhancement of organic phase change materials used for thermal energy storage. <b>2022</b> , 117291	1
178	Review on the Energy Storage Technologies with the Focus on Multi-Energy Systems. <b>2022</b> , 105-122	0
177	Numerical Investigations on Melting of Phase Change Material (PCM) with Different Arrangements of Heat Source-sink Pairs Under Microgravity. <b>2022</b> , 34, 1	0

176	Numerical simulation of the calcium hydroxide/calcium oxide system dehydration reaction in a shell-tube reactor. <b>2022</b> , 312, 118778	0
175	Design and analysis of a renewable energy driven greenhouse integrated with a solar still for arid climates. <b>2022</b> , 258, 115512	1
174	Energy storage for black start services: A review. <b>2022</b> , 29, 691-704	0
173	Thermo-economic assessment of flexible nuclear power plants in future low-carbon electricity systems: Role of thermal energy storage. <b>2022</b> , 258, 115484	2
172	Impact of polymeric stabilisers on the reaction kinetics of SrBr <sub>2</sub> . <b>2022</b> , 238, 111648	0
171	A review on the fabrication methods for structurally stabilised composite phase change materials and their impacts on the properties of materials. <b>2022</b> , 159, 112134	2
170	Thermal energy storage for electric vehicles at low temperatures: Concepts, systems, devices and materials. <b>2022</b> , 160, 112263	3
169	Evaluating emerging long-duration energy storage technologies. <b>2022</b> , 159, 112240	5
168	An analytical method for identifying synergies between behind-the-meter battery and thermal energy storage. <b>2022</b> , 50, 104216	0
167	Values of latent heat and thermochemical energy storage technologies in low-carbon energy systems: Whole system approach. <b>2022</b> , 50, 104126	0
166	A comprehensive review of nano-enhanced phase change materials on solar energy applications. <b>2022</b> , 50, 104262	6
165	Evaluation of global energy performance of building walls integrating PCM: Numerical study in semi-arid climate in Morocco. <b>2022</b> , 16, e00979	1
164	Toward new low-temperature thermochemical heat storage materials: Investigation of hydration/dehydration behaviors of MgSO <sub>4</sub> /Hydroxyapatite composite. <b>2022</b> , 240, 111696	1
163	Production of thermoregulating slurries constituted by nanocapsules from melamine-formaldehyde containing n-octadecane. <b>2022</b> , 51, 104465	0
162	Fundamental structure-function relationships in vegetable oil based phase change materials: A critical review. <b>2022</b> , 51, 104355	0
161	Analysis of cold thermal energy storage using phase change materials in freezers. <b>2022</b> , 51, 104433	4
160	Power storage using sand and engineered materials as an alternative for existing energy storage technologies. <b>2022</b> , 51, 104381	0
159	Development of MgSO <sub>4</sub> /mesoporous silica composites for thermochemical energy storage: the role of porous structure on water adsorption. <b>2022</b> , 8, 4913-4921	1

158	Energetic Performance Evaluation of Walls Incorporating Phase Change Material (PCM) Under Semi-Arid Climate of Benguerir City. <b>2021</b> ,		
157	Investigation of Optimal Aspect Ratio and Optimal Number of Fins for Thermal Performance of Finned-Concentric-Tube Thermal Energy Storage. <b>2021</b> , 12,		
156	A Study on the Influence of the Next Generation Colored Inorganic Geopolymer Material Paint on the Insulation Measurement of Concrete Building Shell. <i>Sustainability</i> , <b>2022</b> , 14, 164	3.6	0
155	Cooperative utilization of electrical and thermal storage systems for uninterrupted supply of a greenhouse Microgrid. <b>2021</b> ,		0
154	TES Nanoemulsions: A Review of Thermophysical Properties and Their Impact on System Design.. <b>2021</b> , 11,		2
153	The trend of using solar energy of a green intelligent building and thermal energy storage to reduce the energy intensity of the building. <b>2021</b> , 1209, 012069		1
152	The Effect of Using the Fire-brick Fragments as a Thermal Energy Storage Material on Thermal Efficiency of Solar Air Heater.		
151	Optimization methodology of thermal energy storage systems for domestic water heating applications with different configurations. <b>2022</b> , 50, 104530		0
150	Influence of aggressive exposure on the degradation of nano-silica admixed cementitious mortar integrated with phase change materials. <b>2022</b> , 335, 127467		0
149	An evaluation for the optimal sensible heat storage material for maximizing solar still productivity: A state-of-the-art review. <b>2022</b> , 50, 104622		0
148	Energy, Exergy and Economic Analysis and Optimization of a Cchp Cycle with Solar Collector Actuator in Both Hot and Cold Climates.		
147	A review on thermal energy storage. <b>2022</b> ,		
146	Battery energy storage systems and SWOT (strengths, weakness, opportunities, and threats) analysis of batteries in power transmission. <b>2022</b> , 123987		7
145	Performance of Nanocomposites of a Phase Change Material Formed by the Dispersion of MWCNT/TiO for Thermal Energy Storage Applications.. <b>2022</b> , 15,		2
144	Hybrid Energy Storage Design and Dispatch Strategy Evaluation with Sensitivity Analysis: Techno-Economic-Environmental Assessment.		0
143	Experimental investigation into cascade thermochemical energy storage system using SrCl <sub>2</sub> -cement and zeolite-13X materials. <b>2022</b> , 316, 119145		1
142	Key components for Carnot Battery: Technology review, technical barriers and selection criteria. <b>2022</b> , 163, 112478		2
141	Contribution to research on ground heat storages as part of building energy systems using RES. <b>2022</b> , 267, 112125		2

- <sup>140</sup> Water resource recovery facilities as potential energy generation units and their dynamic economic dispatch. **2022**, 318, 119199
- <sup>139</sup> A survey on multi-criterion decision parameters, integration layout, storage technologies, sizing methodologies and control strategies for integrated renewable energy system. **2022**, 52, 102246 2
- <sup>138</sup> Role of phase change materials in thermal energy storage: Potential, recent progress and technical challenges. **2022**, 52, 102234 1
- <sup>137</sup> A multi-criteria approach to optimize the design-operation of Energy Communities considering economic-environmental objectives and demand side management. **2022**, 263, 115677 0
- <sup>136</sup> Heat capacity of liquid transition metals obtained with aerodynamic levitation. **2022**, 171, 106801 0
- <sup>135</sup> Reducing heat loss from solar hot water storage tanks using passive baffles. **2022**, 52, 104807 0
- <sup>134</sup> Energy-exergy and environ-economic (4E) analysis while drying ivy gourd in a passive indirect solar dryer without and with energy storage system and results comparison. **2022**, 240, 69-83 1
- <sup>133</sup> Review on the sustainability of phase-change materials used in buildings. **2022**, 15, 100237 1
- <sup>132</sup> Energy and exergy analysis of pebble bed thermal energy storage system for diesel engine exhaust. **2022**, 72-72
- <sup>131</sup> Packed Bed Thermal Energy Storage System Using Form-Stable High-Density Polyethylene.
- <sup>130</sup> Improved Performance of Ceramic Solar Absorber Particles Coated with Black Oxide Pigment Deposited by Resonant Acoustic Mixing and Reaction Sintering. **2022**, 12, 757 0
- <sup>129</sup> Assessment of Molten Eutectic LiF-NaF-KF Density through Experimental Determination and Semiempirical Modeling. 1
- <sup>128</sup> Review of Latest Advances and Prospects of Energy Storage Systems: Considering Economic, Reliability, Sizing, and Environmental Impacts Approach. **2022**, 4, 477-501 2
- <sup>127</sup> Storage and heat dissipation behavior of a heat storage ball with an Al<sub>2</sub>Si alloy core and alumina ceramic shell. **2022**, 52, 104955 0
- <sup>126</sup> Thermocline packed bed thermal energy storage system. **2022**, 325-385 0
- <sup>125</sup> Solar air heater performance improvement by photovoltaic-powered thermoelectric heat pumping. **2022**, 45-67
- <sup>124</sup> Introduction to various sustainable energy storage technologies. **2022**, 33-57
- <sup>123</sup> Investigation of PCM thermal effectiveness towards an optimised design of cooling building envelope. **2022**, 2222, 012005

122	Thermal Properties of Novel Phase-Change Materials Based on Tamanu and Coconut Oil Encapsulated in Electrospun Fiber Matrices. <i>Sustainability</i> , <b>2022</b> , 14, 7432	3.6	0
121	Retrofitting Buildings into Thermal Batteries for Demand-Side Flexibility and Thermal Safety during Power Outages in Winter. <b>2022</b> , 15, 4405		0
120	Review of Thermochemical Technologies for Water and Energy Integration Systems: Energy Storage and Recovery. <i>Sustainability</i> , <b>2022</b> , 14, 7506	3.6	0
119	The current development of the energy storage industry in Taiwan: A snapshot. <b>2022</b> , 53, 105117		0
118	The role of energy storage technologies for sustainability in developing countries. <b>2022</b> , 347-376		
117	A Review of Emerging Cutting-Edge Energy Storage Technologies for Smart Grids Purposes. <b>2022</b> ,		1
116	Review on Water and Energy Integration in Process Industry: Water-Heat Nexus. <i>Sustainability</i> , <b>2022</b> , 14, 7954	3.6	1
115	Ultra-high porous MgO micro-particles for heat energy storage. 2204775		
114	A Comparative Review of Lead-Acid, Lithium-Ion and Ultra-Capacitor Technologies and Their Degradation Mechanisms. <b>2022</b> , 15, 4930		
113	Energy storage systems: A review. <b>2022</b> ,		8
112	Advances in thermochemical energy storage and fluidised beds for domestic heat. <b>2022</b> , 53, 105242		1
111	Enhanced thermal energy storage performance of molten salt for the next generation concentrated solar power plants by SiO <sub>2</sub> nanoparticles: A molecular dynamics study. <b>2022</b> , 323, 119555		0
110	A comprehensive overview on water-based energy storage systems for solar applications. <b>2022</b> , 8, 8777-8797		0
109	Experimental Study of Varying Heat Transfer Fluid Parameters within a Latent Heat Thermal Energy Storage System Enhanced by Fins. <i>Sustainability</i> , <b>2022</b> , 14, 8920	3.6	
108	Integration of PCM as an External Wall Layer in Reducing Excessive Heat of Building Walls.		
107	Thermoregulating gypsums by using nanoencapsulated phase change material slurry.		
106	Development of a latent heat thermal energy storage unit for the exhaust of a recuperated solar-dish Brayton cycle. <b>2022</b> , 118994		0
105	Seasonal thermal energy storage in smart energy systems: District-level applications and modelling approaches. <b>2022</b> , 167, 112760		2

104	Electricity Consumption Optimization Using Thermal and Battery Energy Storage Systems in Buildings. <b>2022</b> , 1-1	0
103	Modeling of an Active Household under Different Tariffs. <b>2022</b> ,	
102	The Role of Renewable Energies, Storage and Sector-Coupling Technologies in the German Energy Sector under Different CO2 Emission Restrictions. <b>2022</b> , 14, 10379	1
101	Thermocline thermal storage for CSP applications: characterization of novel nitrate salt mixtures. 1-19	1
100	Experimental study on heat transfer and hydrodynamics of a concentric double-pipe pulsed fluidized bed using microencapsulated phase change material and sand. <b>2022</b> , 409, 117832	
99	Magnesium sulphate hybrids with silica gel and activated alumina for thermal energy storage. <b>2022</b> , 371, 133262	
98	Optimal nuclear trigeneration system considering life cycle costing. <b>2022</b> , 370, 133399	
97	Classification, potential role, and modeling of power-to-heat and thermal energy storage in energy systems: A review. <b>2022</b> , 53, 102553	
96	Analysis of an ultra-low temperature district heating and cooling as a storage system for renewable integration. <b>2022</b> , 216, 119052	0
95	Experimental investigation during the melting process of a vertical and horizontal tube-in-shell Latent Heat Energy Storage System. <b>2022</b> , 55, 105401	0
94	A review on thermophysical properties and thermal stability of sugar alcohols as phase change materials. <b>2022</b> , 55, 105456	1
93	Mechanical and thermophysical properties of cement mortars including bio-based microencapsulated phase change materials. <b>2022</b> , 352, 129056	0
92	Performance investigation of latent heat energy storage in series and parallel arrangement: A numerical study. <b>2022</b> , 55, 105678	0
91	Performance investigation of active double slope solar stills incorporating internal sidewall reflector, hollow circular fins, and nanoparticle-mixed phase change material. <b>2022</b> , 55, 105660	1
90	Multi-objective risk-constrained optimal performance of hydrogen-based multi energy systems for future sustainable societies. <b>2022</b> , 87, 104176	0
89	The thermodynamic principle determining the interface temperatures during phase change. <b>2022</b> , 198, 123389	0
88	A review study on recent advances in solar drying: Mechanisms, challenges and perspectives. <b>2022</b> , 248, 111979	0
87	Intra- and inter-device passive thermal management using solid-solid Nickel Titanium phase change materials. <b>2022</b> ,	0

- 86 Packed bed thermal energy storage system using form-stable high-density polyethylene. **2023**, 218, 119209 ○
- 85 Selection of phase change materials for high temperature latent heat thermal energy storage for concentrated solar power plants. **2022**, 1 ○
- 84 Numerical Simulation of the Application of Renewable Energies Methodologies in 3D Auditorium Geometry for Summer Conditions. **2022**, ○
- 83 Laboratory Configurations for PCM-TES Materials: A Review. 9, 50-68 ○
- 82 A comprehensive review of latent heat energy storage for various applications: an alternate to store solar thermal energy. **2022**, 44, 1
- 81 Machine Learning Accelerated Discovery of Promising Thermal Energy Storage Materials with High Heat Capacity. **2022**, 14, 43277-43289 ○
- 80 Rechargeable Batteries for Grid Scale Energy Storage. 14
- 79 Effect of Flow Disturbance on the Performance of Sensible Energy Storage Device. **2023**, 205-216 ○
- 78 Thermal Energy Storage Methods and Materials. **2023**, 39-61 ○
- 77 A comprehensive review on pit thermal energy storage: Technical elements, numerical approaches and recent applications. **2022**, 55, 105716 1
- 76 Long term accumulation of heat energy from the sun. **2022**, 1252, 012015 ○
- 75 Numerical Simulation of Thermal Storage Performance of Different Concrete Floors. **2022**, 14, 12833 ○
- 74 Impact of Conjugated Polymer Addition on the Properties of Paraffin-Asphaltene Blends for Heat Storage Applications: Insight from Computer Modeling and Experiment. ○
- 73 An overview of underground energy-related product storage and sequestration. **2023**, 528, 1
- 72 Effect of Polyethylene Glycol and Activated Carbon Macroparticles on Thermal Conductivity of Paraffin Wax for Thermal Storage Applications. **2022**, 14, 4181 ○
- 71 Particle Technology in the Formulation and Fabrication of Thermal Energy Storage Materials. ○
- 70 Progress in research and technological advancements of thermal energy storage systems for concentrated solar power. **2022**, 55, 105860 4
- 69 Experimental and numerical analysis of a phase change material-based shell-and-tube heat exchanger for cold thermal energy storage. **2022**, 56, 105975 2

- |    |   |   |
|----|---|---|
| 68 | A conceptual framework for waste heat recovery from compression ignition engines: Technologies, working fluids & heat exchangers. <b>2022</b> , 16, 100309  | o |
| 67 | Lightweight aggregates as carriers for phase change materials. <b>2022</b> , 360, 129390  | o |
| 66 | Artificial intelligence and machine learning applications in energy storage system: technology overview and perspectives. <b>2023</b> , 1-26  | o |
| 65 | Solar-energy-driven desalination cycle with an energy storage option. <b>2023</b> , 125-142   | o |
| 64 | Energy storage for sustainable desalination and renewable energy integration. <b>2023</b> , 1-23  | o |
| 63 | Thermochemical energy storage using coupled metal hydride beds of Mg-LaNi <sub>5</sub> composites and LaNi <sub>5</sub> based hydrides for concentrated solar power plants. <b>2023</b> , 219, 119521 | o |
| 62 | Latent heat thermal storage of solid-state phase transition in thermally stabilized hexagonal FeS. <b>2023</b> , 225, 115166  | o |
| 61 | Chemical Looping Reforming with Perovskite-Based Catalysts for Thermochemical Energy Storage. <b>2022</b> , 15, 8556  | o |
| 60 | Year-round and techno-economic feasibility analyses on integration of absorption based mobile thermochemical energy storage with building cooling system in tropical climate. <b>2022</b> , 126042    | o |
| 59 | Thermal Energy Storage in Concentrating Solar Power Plants: A Review of European and North American R&D Projects. <b>2022</b> , 15, 8570  | 1 |
| 58 | Thermo-economic analysis of steam accumulation and solid thermal energy storage in direct steam generation concentrated solar power plants. <b>2022</b> , 274, 116222                                 | o |
| 57 | MXene-based phase change materials for solar thermal energy storage. <b>2022</b> , 273, 116432  | o |
| 56 | Comparative study of using periodic daily and long-term weather data for cooling system sizing and impact of thermal mass. <b>2022</b> , 362, 06002   | o |
| 55 | Comparison of key performance indicators of sorbent materials for thermal energy storage with an economic focus. <b>2023</b> , 55, 130-153  | o |
| 54 | Outline of the incorporation of phase change materials in radiant systems. <b>2023</b> , 57, 106307   | o |
| 53 | Modification of heat storage system involving Trombe wall in existence of paraffin enhanced with nanoparticles. <b>2023</b> , 58, 106419  | 3 |
| 52 | Thermochemical sorption heat storage: Investigate the heat released from activated carbon beads used as porous host matrix for MgSO <sub>4</sub> salt. <b>2023</b> , 59, 106452                       | o |
| 51 | The Effect of Fresnel Lens Focal Point Location on Heat Transfer in Phase Change Material (PCM) Enhanced Dynamic Solar Facade. <b>2022</b> , 26, 1268-1278  | o |

50	Phase Change Materials for Renewable Energy Storage at Intermediate Temperatures.	2
49	Reactivity Improvement of Magnesium Chloride by Ammonia Pre-coordination for Thermochemical Energy Storage at Approximately 100°C. <b>2022</b> , 62, 2542-2550	0
48	Comparative Analysis of Energy Storage Methods for Energy Systems and Complexes. <b>2022</b> , 15, 9541	1
47	A review on the micro-encapsulation of phase change materials: classification, study of synthesis technique and their applications. <b>2023</b> , 30,	0
46	Technology in Design of Heat Exchangers for Thermal Energy Storage.	0
45	Influences of latent heat storage heat sink integrated with solar dryer to enhance drying period. <b>2022</b> , 8, 100160	0
44	Review on influence of nanomaterials on thermal energy storage methods. <b>2022</b> ,	0
43	A review of phase change materials and heat enhancement methodologies.	0
42	Investigation of the Liquefaction Kinetics of the PolyE-IL-Catalyzed Catalytic Thermo Liquefaction Process for Organic Biodegradable Municipal Solid Waste.	0
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40	Kanatlı Dikey Silindirik Bir Tıbbi Arisinde Faz Değişiren Malzemenin Erime Analizi.	0
39	High-temperature heat pumps in climate pathways for selected industry sectors in Switzerland. <b>2023</b> , 173, 113383	0
38	Experimental study and analysis of a novel layered packed-bed for thermal energy storage applications: A proof of concept. <b>2023</b> , 277, 116648	0
37	Valorization of Spent coffee Grounds: A sustainable resource for Bio-based phase change materials for thermal energy storage. <b>2023</b> , 157, 339-347	0
36	A ranking methodology for the coupling of pressurized water nuclear reactors and molten salt thermal energy storage. <b>2023</b> , 59, 106562	0
35	Multi-objective thermo-economic optimisation of Joule-Brayton pumped thermal electricity storage systems: Role of working fluids and sensible heat storage materials. <b>2023</b> , 223, 119972	0
34	Experimental study of heat transfer enhancement using metal foam partially filled with phase change material in a heat sink. <b>2023</b> , 60, 106496	0
33	Renewable Energy Source Optimization Based on Pumped-Storage Hydroelectricity. <b>2022</b> ,	0

- 32 A Numerical Analysis of the Thermal Energy Storage Based on Porous Gyroid Structure Filled with Sodium Acetate Trihydrate. **2023**, 16, 309 ○
- 31 Coconut Oil as Bio-based PCM: Characteristics and Compatibility with Plastics. **2022**, 17, 1-8 ○
- 30 Solar energy and gasification of MSW: two promising green energy options. **2023**, 93-125 ○
- 29 Nanocellulose-based composite phase change materials for thermal energy storage: status and challenges. ○
- 28 Energy, exergy, economic, and environmental (4E) analysis of a pumped thermal energy storage system for trigeneration in buildings. ○
- 27 Experimental study of storage system of a solar water heater equipped with an innovative absorber spherical double-walled tank immersed in a phase change material. **2023**, 61, 106782 ○
- 26 Enhancement of conventional concrete mix designs for sensible thermal energy storage applications. **2023**, 61, 106735 ○
- 25 DSC of Inorganic Materials. **2023**, 309-484 ○
- 24 Discharging of PCM in Various Shapes of Thermal Energy Storage Systems: A Review. ○
- 23 Effect of bypassing the heat transfer fluid on charging in a latent thermal energy storage unit. **2023**, 62, 106959 ○
- 22 Solid state sensible heat storage technology for industrial applications A review. **2023**, 62, 106919 ○
- 21 Experimental and numerical investigation of melting and solidification enhancement using Fibonacci-inspired fins in a latent thermal energy storage unit. **2023**, 210, 124180 ○
- 20 Effects of external weather on the water consumption of Thermal-Energy-Storage Air-Conditioning system. **2023**, 10, 100187 ○
- 19 A comprehensive review on the recent advances in materials for thermal energy storage applications. **2023**, 18, 100326 ○
- 18 Thermal energy storage in concrete: Review, testing, and simulation of thermal properties at relevant ranges of elevated temperature. **2023**, 166, 107096 ○
- 17 Standardised methods for the determination of key performance indicators for thermal energy storage heat exchangers. **2023**, 176, 113139 ○
- 16 Encapsulated Phase Change Material Slurries as Working Fluid in Novel Photovoltaic Thermal Liquid Systems: A Comprehensive Review. ○
- 15 A review of industrial food processing using solar dryers with heat storage systems. **2023**, 101, 102090 ○

14	Sector Coupling and Migration towards Carbon-Neutral Power Systems. <b>2023</b> , 16, 1897	o
13	A Simulation of a Sustainable Plus-Energy House in Poland Equipped with a Photovoltaic Powered Seasonal Thermal Storage System. <b>2023</b> , 15, 3810	1
12	Miscanthus-Derived Energy Storage System Material Production. <b>2023</b> , 8, 8779-8790	o
11	A review of the thermal storage of phase change material, morphology, synthesis methods, characterization, and applications of microencapsulated phase change material. <b>2023</b> , 43, 354-375	o
10	Evaluation of Technical Feasibility of Solar Heat Integration in Agri-Food Industries. <b>2023</b> , 11, 696	o
9	Thermodynamic and Structural Effects of Fe Doping in Magnesium Manganese Oxides for Thermochemical Energy Storage. <b>2023</b> , 37, 4692-4700	o
8	Absorption Chiller System Driven by the Solar Hybrid System: Case Study in the Algeria Weather Condition. <b>2023</b> , 15,	o
7	Phase change materials in chemical and process engineering. <b>2023</b> , 569-585	o
6	Evaluation of solar thermal energy capture and storage alternatives for indirect steam generation: A case study.	o
5	Flexible combinatorial ionic/electronic thermoelectric converters to efficiently harvest heat from both temperature gradient and temperature fluctuation. <b>2023</b> , 100003	o
4	A scientometrics review of solar thermal energy storage (STES) during the past forty years. <b>2023</b> , 66, 107266	o
3	Maximizing uninterrupted solar electricity in spectral-splitting photovoltaic-thermal systems integrated with CO2 battery. <b>2023</b> , 66, 107402	o
2	Free convection of nanofluids in a porous sensible heat storage unit: Combined effect of time periodic heating and external magnetic field. <b>2023</b> , 192, 108404	o
1	Potential to balance load variability, induced by renewable power, using rock cavern thermal energy storage, heat pumps, and combined heat and power in Sweden. <b>2023</b> , 343, 121210	o