Theodore A Steinberg

List of Publications by Year
in descending order

65	981	394421	477307
papers	citations	19 h-index	29 g-index

65	65	65	775
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Materials compatibility for the next generation of Concentrated Solar Power plants. Energy Storage Materials, 2018, 14, 179-198.	18.0	111
2	A critical review of eutectic salt property prediction for latent heat energy storage systems. Renewable and Sustainable Energy Reviews, 2017, 70, 936-944.	16.4	61
3	Corrosion of steel alloys in eutectic NaCl+Na 2 CO 3 at 700 Â°C and Li 2 CO 3 + K 2 CO 3 + Na 2 CO 3 at 450 Â°C for thermal energy storage. Solar Energy Materials and Solar Cells, 2017, 170, 48-59.	6.2	52
4	LNG Regasification Terminals: The Role of Geography and Meteorology on Technology Choices. Energies, 2017, 10, 2152.	3.1	50
5	Corrosion of stainless steel 316 in eutectic molten salts for thermal energy storage. Solar Energy, 2018, 172, 198-203.	6.1	49
6	Sessile Drop Wettability in Normal and Reduced Gravity. Microgravity Science and Technology, 2012, 24, 195-202.	1.4	43
7	The combustion phase of burning metals. Combustion and Flame, 1992, 91, 200-208.	5.2	39
8	Corrosion of Inconel 601 in molten salts for thermal energy storage. Solar Energy Materials and Solar Cells, 2017, 172, 220-229.	6.2	39
9	Optimal condition-based cleaning of solar power collectors. Solar Energy, 2017, 157, 762-777.	6.1	37
10	Experimental study of the interactivity, specific heat, and latent heat of fusion of water based nanofluids. Applied Thermal Engineering, 2017, 117, 164-168.	6.0	36
11	Design optimization method for tube and fin latent heat thermal energy storage systems. Energy, 2017, 134, 585-594.	8.8	36
12	Corrosion of steel alloys in molten NaCl + Na2SO4 at 700 Â°C for thermal energy storage. Solar Energy Materials and Solar Cells, 2018, 179, 207-216.	6.2	35
13	The Solubility of Oxygen in Liquid Iron Oxide During the Combustion of Iron Rods in High-Pressure Oxygen. Combustion and Flame, 1998, 113, 27-37.	5.2	25
14	The combustion of iron in high-pressure oxygen. Combustion and Flame, 1992, 89, 221-228.	5.2	24
15	Optimization of cleaning strategies for heliostat fields in solar tower plants. Solar Energy, 2020, 204, 501-514.	6.1	24
16	Stress assisted oxidative failure of Inconel 601 for thermal energy storage. Solar Energy Materials and Solar Cells, 2017, 159, 510-517.	6.2	23
17	Experimental verification of theoretically estimated composition and enthalpy of fusion of eutectic salt mixtures. Solar Energy Materials and Solar Cells, 2018, 174, 515-522.	6.2	23
18	The burning of metals and alloys in microgravity. Combustion and Flame, 1992, 88, 309-320.	5.2	22

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19	Review of the solubility, monitoring, and purification of impurities in molten salts for energy storage in concentrated solar power plants. Renewable and Sustainable Energy Reviews, 2020, 131, 110006.	16.4	21
20	Techno-economic assessment of solar thermal and alternative energy integration in supercritical water gasification of microalgae. Energy Conversion and Management, 2021, 230, 113807.	9.2	18
21	Optimized Salt Selection for Solar Thermal Latent Heat Energy Storage. Advanced Sustainable Systems, 2018, 2, 1800074.	5.3	17
22	Damage analysis of 601 nickel superalloy in eutectic Na2CO3/NaCl molten salt under isothermal and thermal cycling conditions. Solar Energy, 2019, 191, 637-646.	6.1	17
23	Corrosion mechanism of SS316L exposed to NaCl/Na2CO3 molten salt in air and argon environments. Corrosion Science, 2022, 195, 109966.	6.6	17
24	On the effect of cold-rolling on the corrosion of SS316L alloy in a molten carbonate salt. Solar Energy Materials and Solar Cells, 2019, 202, 110136.	6.2	16
25	Effect of Gravity on the Gelation of Silica Sols. Chemistry of Materials, 2007, 19, 660-664.	6.7	13
26	Aggressive corrosion of C-276 nickel superalloy in chloride/sulphate eutectic salt. Solar Energy, 2021, 227, 557-567.	6.1	13
27	Emission spectra of burning iron in high-pressure oxygen. Combustion and Flame, 1996, 104, 391-400.	5.2	11
28	Geopolymer encapsulation of a chloride salt phase change material for high temperature thermal energy storage. AIP Conference Proceedings, 2016, , .	0.4	11
29	Highâ€Temperature Phase Change Material (PCM) Selection for Concentrating Solar Power Tower Applications. Advanced Sustainable Systems, 2018, 3, 1800131.	5.3	10
30	Reflection of structural waves at a solid/liquid interface. Ultrasonics, 2003, 41, 347-356.	3.9	7
31	Iron Burning in Pressurised Oxygen Under Microgravity Conditions. Microgravity Science and Technology, 2009, 21, 41-46.	1.4	7
32	Sectorial reflectance-based cleaning policy of heliostats for Solar Tower power plants. Renewable Energy, 2020, 166, 176-189.	8.9	7
33	Suppression effects of cooling rate on crystallization in ZBLAN glass. Journal of Non-Crystalline Solids, 2018, 481, 306-313.	3.1	6
34	Determination of the regression rate of a fast moving solid/liquid interface using ultrasonics. Ultrasonics, 2001, 39, 173-180.	3.9	5
35	The Rate-Limiting Mechanism for the Heterogeneous Burning of Cylindrical Iron Rods. Journal of ASTM International, 2009, 6, 1-13.	0.2	5
36	Dynamic thermal analysis of an external cylindrical receiver in an object-oriented modelling paradigm. AIP Conference Proceedings, 2022, , .	0.4	5

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37	Response to comment by I. Glassman on â€œThe Combustion Phase of Burning Metalsâ€• Combustion and Flame, 1993, 93, 343-347.	5.2	4
38	Synthesis and characterization of titanium solâ€“gels in varied gravity. Journal of Non-Crystalline Solids, 2014, 396-397, 13-19.	3.1	4
39	Scanning Kelvin Probe Force Microscopy as a means for comparative quantification of cold-rolling and visualizing the surface susceptibility to galvanic cells; compared to neutron diffraction and EBSD. Progress in Surface Science, 2020, 95, 100594.	8.3	4
40	LNG regasification â€“ Effects of project stage decisions on capital expenditure and implications for gas pricing. Journal of Natural Gas Science and Engineering, 2020, 78, 103291.	4.4	4
41	Suppression of crystallization in ZBLAN glass by rapid heating and cooling processing. International Journal of Applied Glass Science, 2019, 10, 391-400.	2.0	3
42	Statistical Evaluation of Promoted Ignition Test Data. Journal of ASTM International, 2007, 4, 101068.	0.2	3
43	Statistical Considerations for Adiabatic Compression Testing. , 2016, , 37-48.		3
44	Critical components in supercritical CO2 Brayton cycle power blocks for solar power systems: Degradation mechanisms and failure consequences. Solar Energy Materials and Solar Cells, 2022, 242, 111768.	6.2	3
45	Multiphase oxidation of metals. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1997, 28, 209-214.	2.1	2
46	An innovative empirical method for the accurate identification of the eutectic point of binary salts for solar thermal energy storage. Materials Today Communications, 2021, 26, 101864.	1.9	2
47	Effect of Geometry on the Melting Rates of Iron Rods Burning in High Pressure Oxygen. Journal of ASTM International, 2007, 4, 1-11.	0.2	2
48	A Proposed Qualitative Framework for Heterogeneous Burning of Metallic Materials: The â€œMelting Rate Triangleâ€• Journal of ASTM International, 2009, 6, 1-8.	0.2	2
49	Investigation of the corrosion of electro-less nickel-plated alloys in molten salt and its effect on phase change properties for energy storage applications. Solar Energy, 2022, 236, 512-521.	6.1	2
50	Ultrasonicin-situdetermination of the regression rate of the melting interface in burning metal rods. Journal of the Acoustical Society of America, 1999, 105, 1638-1642.	1.1	1
51	Formation of a xerogel in reduced gravity using the acid catalysed silica sol-gel reaction. , 2005, 6036, 64.		1
52	Semi-empirical estimation of the attenuation loss for amorphous ZBLAN glass. Optical and Quantum Electronics, 2019, 51, 1.	3.3	1
53	In-situ reflectivity monitoring of heliostats using calibration cameras. AIP Conference Proceedings, 2019, , .	0.4	1
54	Determination of Burn Criterion for Promoted Combustion Testing. Journal of ASTM International, 2009, 6, 1-11.	0.2	1

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55	Combustion Products of Bulk Aluminum Rods Burning in High-Pressure Oxygen. , 2012, , 233-244.		1
56	Evaluation of a Near-Adiabatic Compression Process to Increase Fire Safety Within Oxygen Systems, Focusing on Non-Metals. , 2016, , 405-412.		1
57	Identifying structural integrity issues for molten salt phase change material thermal storage systems from corrosion behavior. AIP Conference Proceedings, 2020, , .	0.4	1
58	Testing and Evaluating of Structural Materials for CSP Applications. ECS Transactions, 2018, 85, 23-35.	0.5	0
59	Modeling the Thermal Condition of a Nonmetal Prior to Ignition in Gaseous Oxygen. , 2021, , 170-181.		0
60	Comparison of Combustion Products of Bulk Aluminum Rods Burning in High Pressure Oxygen in Normal and Reduced Gravity. , 2016, , 326-337.		0
61	Testing and Evaluating of Structural Materials for CSP Applications. ECS Meeting Abstracts, 2018, , .	0.0	0
62	A Critical Analysis of Adiabatic Compression Test Methods. , 2021, , 154-170.		0
63	Nonmetal Ignition Due to Rapid Compression in Oxygen Systems. , 2021, , 181-199.		0
64	Initiation of Kindling Chain from Rapid Compression. , 2021, , 199-206.		0
65	Bi-objective optimization of sectorial cleaning policy for the solar fields of concentrating solar tower plants. AIP Conference Proceedings, 2022, , .	0.4	0