

Theodore A Steinberg

List of Publications by Year in descending order

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65
papers

981
citations

394421

19
h-index

477307

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65
docs citations

65
times ranked

775
citing authors

#	ARTICLE	IF	CITATIONS
1	Corrosion mechanism of SS316L exposed to NaCl/Na ₂ CO ₃ molten salt in air and argon environments. Corrosion Science, 2022, 195, 109966.	6.6	17
2	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
3	Bi-objective optimization of sectorial cleaning policy for the solar fields of concentrating solar tower plants. AIP Conference Proceedings, 2022, , .	0.4	0
4	Dynamic thermal analysis of an external cylindrical receiver in an object-oriented modelling paradigm. AIP Conference Proceedings, 2022, , .	0.4	5
5	Critical components in supercritical CO ₂ 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
6	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
7	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
8	Aggressive corrosion of C-276 nickel superalloy in chloride/sulphate eutectic salt. Solar Energy, 2021, 227, 557-567.	6.1	13
9	Modeling the Thermal Condition of a Nonmetal Prior to Ignition in Gaseous Oxygen. , 2021, , 170-181.		0
10	A Critical Analysis of Adiabatic Compression Test Methods. , 2021, , 154-170.		0
11	Nonmetal Ignition Due to Rapid Compression in Oxygen Systems. , 2021, , 181-199.		0
12	Initiation of Kindling Chain from Rapid Compression. , 2021, , 199-206.		0
13	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
14	LNG regasification “ 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
15	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
16	Sectorial reflectance-based cleaning policy of heliostats for Solar Tower power plants. Renewable Energy, 2020, 166, 176-189.	8.9	7
17	Optimization of cleaning strategies for heliostat fields in solar tower plants. Solar Energy, 2020, 204, 501-514.	6.1	24
18	Identifying structural integrity issues for molten salt phase change material thermal storage systems from corrosion behavior. AIP Conference Proceedings, 2020, , .	0.4	1

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19	Semi-empirical estimation of the attenuation loss for amorphous ZBLAN glass. Optical and Quantum Electronics, 2019, 51, 1.	3.3	1
20	Damage analysis of 601 nickel superalloy in eutectic Na ₂ CO ₃ /NaCl molten salt under isothermal and thermal cycling conditions. Solar Energy, 2019, 191, 637-646.	6.1	17
21	In-situ reflectivity monitoring of heliostats using calibration cameras. AIP Conference Proceedings, 2019, , .	0.4	1
22	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
23	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
24	Materials compatibility for the next generation of Concentrated Solar Power plants. Energy Storage Materials, 2018, 14, 179-198.	18.0	111
25	Suppression effects of cooling rate on crystallization in ZBLAN glass. Journal of Non-Crystalline Solids, 2018, 481, 306-313.	3.1	6
26	Corrosion of stainless steel 316 in eutectic molten salts for thermal energy storage. Solar Energy, 2018, 172, 198-203.	6.1	49
27	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
28	High-temperature Phase Change Material (PCM) Selection for Concentrating Solar Power Tower Applications. Advanced Sustainable Systems, 2018, 3, 1800131.	5.3	10
29	Optimized Salt Selection for Solar Thermal Latent Heat Energy Storage. Advanced Sustainable Systems, 2018, 2, 1800074.	5.3	17
30	Testing and Evaluating of Structural Materials for CSP Applications. ECS Transactions, 2018, 85, 23-35.	0.5	0
31	Corrosion of steel alloys in molten NaCl + Na ₂ SO ₄ at 700 °C for thermal energy storage. Solar Energy Materials and Solar Cells, 2018, 179, 207-216.	6.2	35
32	Testing and Evaluating of Structural Materials for CSP Applications. ECS Meeting Abstracts, 2018, , .	0.0	0
33	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
34	Design optimization method for tube and fin latent heat thermal energy storage systems. Energy, 2017, 134, 585-594.	8.8	36
35	Corrosion of steel alloys in eutectic NaCl+Na ₂ CO ₃ at 700 °C and Li ₂ CO ₃ + K ₂ CO ₃ + Na ₂ CO ₃ at 450 °C for thermal energy storage. Solar Energy Materials and Solar Cells, 2017, 170, 48-59.	6.2	52
36	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

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37	Optimal condition-based cleaning of solar power collectors. <i>Solar Energy</i> , 2017, 157, 762-777.	6.1	37
38	Corrosion of Inconel 601 in molten salts for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 220-229.	6.2	39
39	Stress assisted oxidative failure of Inconel 601 for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 510-517.	6.2	23
40	LNG Regasification Terminals: The Role of Geography and Meteorology on Technology Choices. <i>Energies</i> , 2017, 10, 2152.	3.1	50
41	Geopolymer encapsulation of a chloride salt phase change material for high temperature thermal energy storage. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	11
42	Comparison of Combustion Products of Bulk Aluminum Rods Burning in High Pressure Oxygen in Normal and Reduced Gravity. , 2016, , 326-337.		0
43	Statistical Considerations for Adiabatic Compression Testing. , 2016, , 37-48.		3
44	Evaluation of a Near-Adiabatic Compression Process to Increase Fire Safety Within Oxygen Systems, Focusing on Non-Metals. , 2016, , 405-412.		1
45	Synthesis and characterization of titanium sol-gels in varied gravity. <i>Journal of Non-Crystalline Solids</i> , 2014, 396-397, 13-19.	3.1	4
46	Sessile Drop Wettability in Normal and Reduced Gravity. <i>Microgravity Science and Technology</i> , 2012, 24, 195-202.	1.4	43
47	Combustion Products of Bulk Aluminum Rods Burning in High-Pressure Oxygen. , 2012, , 233-244.		1
48	Iron Burning in Pressurised Oxygen Under Microgravity Conditions. <i>Microgravity Science and Technology</i> , 2009, 21, 41-46.	1.4	7
49	The Rate-Limiting Mechanism for the Heterogeneous Burning of Cylindrical Iron Rods. <i>Journal of ASTM International</i> , 2009, 6, 1-13.	0.2	5
50	A Proposed Qualitative Framework for Heterogeneous Burning of Metallic Materials: The "Melting Rate Triangle". <i>Journal of ASTM International</i> , 2009, 6, 1-8.	0.2	2
51	Determination of Burn Criterion for Promoted Combustion Testing. <i>Journal of ASTM International</i> , 2009, 6, 1-11.	0.2	1
52	Effect of Gravity on the Gelation of Silica Sols. <i>Chemistry of Materials</i> , 2007, 19, 660-664.	6.7	13
53	Effect of Geometry on the Melting Rates of Iron Rods Burning in High Pressure Oxygen. <i>Journal of ASTM International</i> , 2007, 4, 1-11.	0.2	2
54	Statistical Evaluation of Promoted Ignition Test Data. <i>Journal of ASTM International</i> , 2007, 4, 101068.	0.2	3

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55	Formation of a xerogel in reduced gravity using the acid catalysed silica sol-gel reaction. , 2005, 6036, 64.		1
56	Reflection of structural waves at a solid/liquid interface. Ultrasonics, 2003, 41, 347-356.	3.9	7
57	Determination of the regression rate of a fast moving solid/liquid interface using ultrasonics. Ultrasonics, 2001, 39, 173-180.	3.9	5
58	Ultrasonic in-situ determination 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
59	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
60	Multiphase oxidation of metals. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1997, 28, 209-214.	2.1	2
61	Emission spectra of burning iron in high-pressure oxygen. Combustion and Flame, 1996, 104, 391-400.	5.2	11
62	Response to comment by I. Glassman on "The Combustion Phase of Burning Metals". Combustion and Flame, 1993, 93, 343-347.	5.2	4
63	The combustion of iron in high-pressure oxygen. Combustion and Flame, 1992, 89, 221-228.	5.2	24
64	The burning of metals and alloys in microgravity. Combustion and Flame, 1992, 88, 309-320.	5.2	22
65	The combustion phase of burning metals. Combustion and Flame, 1992, 91, 200-208.	5.2	39