# Aldo Steinfeld

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 434 papers | 21,252 citations | 76 h-index | 125 g-index |
| 483 ext. papers | 23,891 ext. citations | 5.8 avg, IF | 7.42 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 434 | Solar Energy in Thermochemical Processing **2022**, 315-347 | | 0 |
| 433 | Drop-in Fuels from Sunlight and Air. *Nature*, **2021**, | 50.4 | 20 |
| 432 | Optical properties and scattering distribution of thermographic phosphors. *Optical Materials*, **2021**, 122, 111741 | 3.3 | |
| 431 | Experimental Investigation of a Thermochemical Reactor for High-Temperature Heat Storage via Carbonation-Calcination Based Cycles. *Frontiers in Energy Research*, **2021**, 9, | 3.8 | 1 |
| 430 | Reversible Phase Transformations in Novel Ce-Substituted Perovskite Oxide Composites for Solar Thermochemical Redox Splitting of CO2. *Advanced Energy Materials*, **2021**, 11, 2003532 | 21.8 | 3 |
| 429 | Performance Indicators for Benchmarking Solar Thermochemical Fuel Processes and Reactors. *Frontiers in Energy Research*, **2021**, 9, | 3.8 | 6 |
| 428 | High-purity nitrogen production from air by pressure swing adsorption combined with SrFeO3 redox chemical looping. *Chemical Engineering Journal*, **2021**, 421, 127734 | 14.7 | 8 |
| 427 | Experimental testing of a solar air cavity-receiver with reticulated porous ceramic absorbers for thermal processing at above 1000 °C. *Solar Energy*, **2021**, 214, 72-85 | 6.8 | 12 |
| 426 | Thermodynamic comparison of solar methane reforming via catalytic and redox cycle routes. *Solar Energy*, **2021**, 215, 169-178 | 6.8 | 8 |
| 425 | Isothermal relaxation kinetics for the reduction and oxidation of SrFeO based perovskites. *Physical Chemistry Chemical Physics*, **2020**, 22, 2466-2474 | 3.6 | 13 |
| 424 | High redox performance of Y0.5Ba0.5CoO3 for thermochemical oxygen production and separation. *Reaction Chemistry and Engineering*, **2020**, 5, 685-695 | 4.9 | 5 |
| 423 | High-Temperature Thermochemical Heat Storage via the CuO/Cu2O Redox Cycle: From Material Synthesis to Packed-Bed Reactor Engineering and Cyclic Operation. *Energy & Fuels*, **2020**, 34, 16772-16782 | 4.1 | 9 |
| 422 | Dual Hydrogen- and Oxygen-Transport Membrane Reactor for Solar-Driven Syngas Production. *Frontiers in Energy Research*, **2020**, 8, | 3.8 | 1 |
| 421 | Additive-Manufactured Ordered Porous Structures Made of Ceria for Concentrating Solar Applications. *Energy Technology*, **2019**, 7, 1900484 | 3.5 | 14 |
| 420 | Concentrated solar energy the path for efficient thermal conversion to power and fuels. *Science Bulletin*, **2019**, 64, 485-486 | 10.6 | 13 |
| 419 | Solar-driven co-thermolysis of CO2 and H2O promoted by in situ oxygen removal across a non-stoichiometric ceria membrane. *Reaction Chemistry and Engineering*, **2019**, 4, 1431-1438 | 4.9 | 16 |
| 418 | Thermochemical energy storage via isothermal carbonation-calcination cycles of MgO-stabilized SrO in the range of 1000 1100 °C. *Solar Energy*, **2019**, 188, 720-729 | 6.8 | 14 |

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| 417 | Reticulated porous ceramic ceria structures with modified surface geometry for solar thermochemical splitting of water and carbon dioxide **2019**, | | 3 |
| 416 | Liquid fuels from concentrated sunlight: An overview on development and integration of a 50 kW solar thermochemical reactor and high concentration solar field for the SUN-to-LIQUID project **2019**, | | 7 |
| 415 | A Pressurized High-Flux Solar Reactor for the Thermochemical Gasification of Charcoal Slurry□Two-Phase Flow and Heat Transfer Analysis. *Journal of Heat Transfer*, **2019**, 142, | 1.8 | 1 |
| 414 | Solar-Driven Thermochemical Production of Sustainable Liquid Fuels from H2O and CO2 in a Heliostat Field **2019**, | | 3 |
| 413 | Unsteady Radiative Heat Transfer Model of a Ceria Particle Suspension Undergoing Solar Thermochemical Reduction. *Journal of Thermophysics and Heat Transfer*, **2019**, 33, 63-77 | 1.3 | 5 |
| 412 | Heat Transfer Model of a 50 kW Solar Receiver□Reactor for Thermochemical Redox Cycling Using Cerium Dioxide. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2019**, 141, | 2.3 | 16 |
| 411 | A co-located solar receiver and thermal storage concept using silicate glass at1000□Cand above: Experiments and modeling in the optically-thick regime. *Solar Energy*, **2019**, 177, 553-560 | 6.8 | 3 |
| 410 | Pilot-scale demonstration of advanced adiabatic compressed air energy storage, Part 1: Plant description and tests with sensible thermal-energy storage. *Journal of Energy Storage*, **2018**, 17, 129-139 | 7.8 | 72 |
| 409 | Constrained multi-objective optimization of thermocline packed-bed thermal-energy storage. *Applied Energy*, **2018**, 216, 694-708 | 10.7 | 29 |
| 408 | Mimicking tetravalent dopant behavior using paired charge compensating dopants to improve the redox performance of ceria for thermochemically splitting H2O and CO2. *Acta Materialia*, **2018**, 144, 728-737 | 8.4 | 18 |
| 407 | Pilot-scale demonstration of advanced adiabatic compressed air energy storage, Part 2: Tests with combined sensible/latent thermal-energy storage. *Journal of Energy Storage*, **2018**, 17, 140-152 | 7.8 | 38 |
| 406 | Reactive stability of promising scalable doped ceria materials for thermochemical two-step CO2 dissociation. *Journal of Materials Chemistry A*, **2018**, 6, 5807-5816 | 13 | 15 |
| 405 | Investigation of Na2SO4 removal from a supercritical aqueous solution in a dip-tube salt separator. *Journal of Supercritical Fluids*, **2018**, 133, 146-155 | 4.2 | 5 |
| 404 | Solar thermal hybrids for combustion power plant: A growing opportunity. *Progress in Energy and Combustion Science*, **2018**, 64, 4-28 | 33.6 | 67 |
| 403 | Optical design and experimental characterization of a solar concentrating dish system for fuel production via thermochemical redox cycles. *Solar Energy*, **2018**, 170, 568-575 | 6.8 | 37 |
| 402 | Co-production of syngas and potassium-based fertilizer by solar-driven thermochemical conversion of crop residues. *Fuel Processing Technology*, **2018**, 171, 89-99 | 7.2 | 15 |
| 401 | Solar thermochemical reactor technology for splitting CO2 **2018**, | | 6 |
| 400 | Comparing the solar-to-fuel energy conversion efficiency of ceria and perovskite based thermochemical redox cycles for splitting H2O and CO2. *International Journal of Hydrogen Energy*, **2018**, 43, 18814-18831 | 6.7 | 52 |

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| 399 | A pressurized high-flux solar reactor for the efficient thermochemical gasification of carbonaceous feedstock. *Fuel*, **2017**, 193, 432-443 | 7.1 | 49 |
| 398 | High Redox Capacity of Al-Doped La Sr MnO Perovskites for Splitting CO and H O at Mn-Enriched Surfaces. *ChemSusChem*, **2017**, 10, 1517-1525 | 8.3 | 26 |
| 397 | Coupled Concentrating Optics, Heat Transfer, and Thermochemical Modeling of a 100-kWth High-Temperature Solar Reactor for the Thermal Dissociation of ZnO. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2017**, 139, | 2.3 | 10 |
| 396 | Solar thermochemical splitting of CO2 into separate streams of CO and O2 with high selectivity, stability, conversion, and efficiency. *Energy and Environmental Science*, **2017**, 10, 1142-1149 | 35.4 | 245 |
| 395 | Computational screening of perovskite redox materials for solar thermochemical ammonia synthesis from N 2 and H 2 O. *Catalysis Today*, **2017**, 286, 124-130 | 5.3 | 21 |
| 394 | Optimal solar dish field layouts for maximum collection and shading efficiencies. *Solar Energy*, **2017** , 144, 286-294 | 6.8 | 5 |
| 393 | Exploiting kinetics to unravel the role of a ZnO diluent in the production of CO via oxidizing Zn particles with CO2. *Chemical Engineering Science*, **2017**, 165, 96-107 | 4.4 | 2 |
| 392 | Tunable thermodynamic activity of La Sr Mn Al O (0 □□, 0 □□) perovskites for solar thermochemical fuel synthesis. *Journal of Materials Chemistry A*, **2017**, 5, 4172-4182 | 13 | 42 |
| 391 | Upgrading sensible-heat storage with a thermochemical storage section operated at variable pressure: An effective way toward active control of the heat-transfer fluid outflow temperature. *Applied Energy*, **2017**, 196, 51-61 | 10.7 | 22 |
| 390 | Integration of a Pressurized-Air Solar Receiver Array to a Gas Turbine Power Cycle for Solar Tower Applications. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2017**, 139, | 2.3 | 8 |
| 389 | Solar-driven alumina calcination for CO2 mitigation and improved product quality. *Green Chemistry*, **2017**, 19, 2992-3005 | 10 | 19 |
| 388 | Experimental investigation of the thermal and mechanical stability of rocks for high-temperature thermal-energy storage. *Applied Energy*, **2017**, 203, 373-389 | 10.7 | 64 |
| 387 | Splitting CO with a ceria-based redox cycle in a solar-driven thermogravimetric analyzer. *AICHE Journal*, **2017**, 63, 1263-1271 | 3.6 | 15 |
| 386 | Reticulated porous ceria undergoing thermochemical reduction with high-flux irradiation. *International Journal of Heat and Mass Transfer*, **2017**, 107, 439-449 | 4.9 | 59 |
| 385 | Experimental observation of transient <i></i><sup>18</sup>O interaction between snow and advective airflow under various temperature gradient conditions. *Cryosphere*, **2017**, 11, 1733-1743 | 5.5 | 16 |
| 384 | Thermodynamics of paired charge-compensating doped ceria with superior redox performance for solar thermochemical splitting of H2O and CO2. *Journal of Materials Chemistry A*, **2017**, 5, 19476-19484 | 13 | 28 |
| 383 | Trends in the phase stability and thermochemical oxygen exchange of ceria doped with potentially tetravalent metals. *Journal of Materials Chemistry A*, **2017**, 5, 19901-19913 | 13 | 24 |
| 382 | Solar-Driven Thermochemical Splitting of CO and Separation of CO and O across a Ceria Redox Membrane Reactor. *Joule*, **2017**, 1, 146-154 | 27.8 | 75 |

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| 381 | Combined Ceria Reduction and Methane Reforming in a Solar-Driven Particle-Transport Reactor. *Industrial & Engineering Chemistry Research*, **2017**, 56, 10300-10308 | 3.9 | 29 |
| 380 | Solar kerosene from H2O and CO2 **2017**, | | 5 |
| 379 | Does the $ 20 Million Carbon XPRIZE Exclude Solar Technologies?. *Energy Technology*, **2017**, 5, 773-774 | 3.5 | 0 |
| 378 | Fuels from water, CO2 and solar energy. *Science Bulletin*, **2017**, 62, 1099-1101 | 10.6 | 22 |
| 377 | Assessment of Heat Exchangers for the Integration of Concentrated Solar Energy into the Catalytic Hydrothermal Gasification of Biomass. *Energy Technology*, **2017**, 5, 2086-2099 | 3.5 | 5 |
| 376 | High-temperature thermocline TES combining sensible and latent heat - CFD modeling and experimental validation **2017**, | | 3 |
| 375 | Design principles of perovskites for solar-driven thermochemical splitting of CO. *Journal of Materials Chemistry A*, **2017**, 5, 15105-15115 | 13 | 23 |
| 374 | Principles of doping ceria for the solar thermochemical redox splitting of H2O and CO2. *Journal of Materials Chemistry A*, **2017**, 5, 15578-15590 | 13 | 52 |
| 373 | On-sun optical characterization of a solar dish concentrator based on elliptical vacuum membrane facets. *Solar Energy*, **2017**, 153, 732-743 | 6.8 | 16 |
| 372 | A 6-focus high-concentration photovoltaic-thermal dish system. *Solar Energy*, **2017**, 155, 445-463 | 6.8 | 20 |
| 371 | Spectral hemispherical reflectivity of nonstoichiometric cerium dioxide. *Solar Energy Materials and Solar Cells*, **2017**, 159, 167-171 | 6.4 | 9 |
| 370 | Nonimaging polygonal mirrors achieving uniform irradiance distributions on concentrating photovoltaic cells. *Applied Optics*, **2017**, 56, 3035-3052 | 0.2 | 4 |
| 369 | A High-Flux Solar Parabolic Dish System for Continuous Thermochemical Fuel Production **2017**, | | 1 |
| 368 | Heat and mass transfer of temperature□vacuum swing desorption for CO2 capture from air. *Chemical Engineering Journal*, **2016**, 283, 1329-1338 | 14.7 | 50 |
| 367 | Experimental demonstration of high-concentration photovoltaics on a parabolic trough using tracking secondary optics. *Progress in Photovoltaics: Research and Applications*, **2016**, 24, 1410-1426 | 6.8 | 5 |
| 366 | A 1.2 MWth solar parabolic trough system based on air as heat transfer fluid at 500 □C □ Engineering design, modelling, construction, and testing. *Solar Energy*, **2016**, 139, 398-411 | 6.8 | 14 |
| 365 | Impact of Daily Startup□Shutdown Conditions on the Production of Solar Methanol over a Commercial Cu□ZnO□Al2O3 Catalyst. *Energy Technology*, **2016**, 4, 565-572 | 3.5 | 10 |
| 364 | The effect of the gas□solid contacting pattern in a high-temperature thermochemical energy storage on the performance of a concentrated solar power plant. *Energy and Environmental Science*, **2016**, 9, 1375-1389 | 35.4 | 43 |

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| 363 | Oxygen nonstoichiometry, defect equilibria, and thermodynamic characterization of LaMnO3 perovskites with Ca/Sr A-site and Al B-site doping. *Acta Materialia*, **2016**, 103, 700-710 | 8.4 | 97 |
| 362 | High-concentration solar dishes based on pneumatic reflecting membranes. *Solar Energy*, **2016**, 124, 89-100 | 6.8 | 7 |
| 361 | Spectral data of specular reflectance, narrow-angle transmittance and angle-resolved surface scattering of materials for solar concentrators. *Data in Brief*, **2016**, 6, 184-8 | 1.2 | 7 |
| 360 | Spectral reflectance, transmittance, and angular scattering of materials for solar concentrators. *Solar Energy Materials and Solar Cells*, **2016**, 144, 509-522 | 6.4 | 24 |
| 359 | Metamorphism during temperature gradient with undersaturated advective airflow in a snow sample. *Cryosphere*, **2016**, 10, 791-797 | 5.5 | 9 |
| 358 | SolarSyngas: Results from a virtual institute developing materials and key components for solar thermochemical fuel production **2016**, | | 2 |
| 357 | Analysis of industrial-scale high-temperature combined sensible/latent thermal energy storage. *Applied Thermal Engineering*, **2016**, 101, 657-668 | 5.8 | 64 |
| 356 | A packed-bed solar reactor for the carbothermal zinc production dynamic modelling and experimental validation. *AICHE Journal*, **2016**, 62, 4586-4594 | 3.6 | 1 |
| 355 | Experimental Demonstration of the Thermochemical Reduction of Ceria in a Solar Aerosol Reactor. *Industrial & Engineering Chemistry Research*, **2016**, 55, 10618-10625 | 3.9 | 32 |
| 354 | Heat transfer and fluid flow analysis of a 4kW solar thermochemical reactor for ceria redox cycling. *Chemical Engineering Science*, **2015**, 137, 373-383 | 4.4 | 59 |
| 353 | Oxygen nonstoichiometry and thermodynamic characterization of Zr doped ceria in the 1573-1773 K temperature range. *Physical Chemistry Chemical Physics*, **2015**, 17, 7813-22 | 3.6 | 87 |
| 352 | Kinetics of CO Reduction over Nonstoichiometric Ceria. *Journal of Physical Chemistry C*, **2015**, 119, 16452-16461 | 4.8 | 87 |
| 351 | Demonstration of the Entire Production Chain to Renewable Kerosene via Solar Thermochemical Splitting of H2O and CO2. *Energy & Fuels*, **2015**, 29, 3241-3250 | 4.1 | 130 |
| 350 | On the Development of a Zinc Vapor Condensation Process for the Solar Carbothermal Reduction of Zinc Oxide. *Jom*, **2015**, 67, 1096-1109 | 2.1 | 6 |
| 349 | Design Principles of Perovskites for Thermochemical Oxygen Separation. *ChemSusChem*, **2015**, 8, 1966-73 | 8.3 | 73 |
| 348 | A numerical investigation of gas-particle suspensions as heat transfer media for high-temperature concentrated solar power. *International Journal of Heat and Mass Transfer*, **2015**, 90, 1056-1070 | 4.9 | 23 |
| 347 | Carbon Dioxide Reforming of Methane using an Isothermal Redox Membrane Reactor. *Energy Technology*, **2015**, 3, 784-789 | 3.5 | 42 |
| 346 | Experimental Investigation of the Carbothermal Reduction of ZnO Using a Beam-Down, Gravity-Fed Solar Reactor. *Industrial & Engineering Chemistry Research*, **2015**, 54, 8319-8332 | 3.9 | 29 |

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| 345 | Analysis of solar-driven gasification of biochar trickling through an interconnected porous structure. *AICHE Journal*, **2015**, 61, 867-879 | 3.6 | 11 |
| 344 | A novel ventilation strategy with CO2 capture device and energy saving in buildings. *Energy and Buildings*, **2015**, 87, 134-141 | 7 | 26 |
| 343 | An air-based corrugated cavity-receiver for solar parabolic trough concentrators. *Applied Energy*, **2015**, 138, 337-345 | 10.7 | 38 |
| 342 | Reforming of Blast Furnace Gas with Methane, Steam, and Lime for Syngas Production and CO2 Capture: A Thermodynamic Study. *Mineral Processing and Extractive Metallurgy Review*, **2015**, 36, 7-12 | 3.1 | 5 |
| 341 | Design of packed bed thermal energy storage systems for high-temperature industrial process heat. *Applied Energy*, **2015**, 137, 812-822 | 10.7 | 106 |
| 340 | Two-stage solar concentrators based on parabolic troughs: asymmetric versus symmetric designs. *Applied Optics*, **2015**, 54, 9709-21 | 0.2 | 14 |
| 339 | Rational design of metal nitride redox materials for solar-driven ammonia synthesis. *Interface Focus* , **2015**, 5, 20140084 | 3.9 | 61 |
| 338 | Tomography-based characterization of ice-air interface dynamics of temperature gradient snow metamorphism under advective conditions. *Journal of Geophysical Research F: Earth Surface*, **2015**, 120, 2437-2451 | 3.8 | 5 |
| 337 | Experimental and Numerical Investigation of Combined Sensible/Latent Thermal Energy Storage for High-Temperature Applications. *Chimia*, **2015**, 69, 799-803 | 1.3 | 3 |
| 336 | Lanthanum Manganite Perovskites with Ca/Sr A-site and Al B-site Doping as Effective Oxygen Exchange Materials for Solar Thermochemical Fuel Production. *Energy Technology*, **2015**, 3, 1130-1142 | 3.5 | 95 |
| 335 | Physico-chemical changes in Ca, Sr and Al-doped La-Mn-O perovskites upon thermochemical splitting of CO2 via redox cycling. *Physical Chemistry Chemical Physics*, **2015**, 17, 6629-34 | 3.6 | 84 |
| 334 | The effect of dopants on the redox performance, microstructure and phase formation of ceria. *Journal of Power Sources*, **2015**, 300, 261-271 | 8.9 | 21 |
| 333 | Modular Design and Experimental Testing of a 50 kWth Pressurized-Air Solar Receiver for Gas Turbines. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2015**, 137, | 2.3 | 31 |
| 332 | Optical and Thermal Analysis of a Pressurized-Air Receiver Cluster for a 50 MWe Solar Power Tower. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2015**, 137, | 2.3 | 10 |
| 331 | Numerical Heat Transfer Analysis of a 50 kWth Pressurized-Air Solar Receiver. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2015**, 137, | 2.3 | 8 |
| 330 | An array of coiled absorber tubes for solar trough concentrators operating with air at 600 °C and above. *Solar Energy*, **2015**, 111, 378-395 | 6.8 | 16 |
| 329 | Design Principles for Metal Oxide Redox Materials for Solar-Driven Isothermal Fuel Production. *Advanced Energy Materials*, **2015**, 5, 1401082 | 21.8 | 38 |
| 328 | Experimental and numerical investigation of combined sensible–latent heat for thermal energy storage at 575 °C and above. *Solar Energy*, **2015**, 114, 77-90 | 6.8 | 84 |

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| 327 | Fast and reversible direct CO2 capture from air onto all-polymer nanofibrillated cellulose-polyethylenimine foams. *Environmental Science & Technology*, **2015**, 49, 3167-74 | 10.3 | 100 |
| 326 | Tomography-based monitoring of isothermal snow metamorphism under advective conditions. *Cryosphere*, **2015**, 9, 1363-1371 | 5.5 | 12 |
| 325 | Micro-computed tomography based computational fluid dynamics for the determination of shear stresses in scaffolds within a perfusion bioreactor. *Annals of Biomedical Engineering*, **2014**, 42, 1085-94 | 4.7 | 37 |
| 324 | High Temperature Rock-bed TES System Suitable for Industrial-scale CSP Plant CFD Analysis Under Charge/Discharge Cyclic Conditions. *Energy Procedia*, **2014**, 46, 124-133 | 2.3 | 38 |
| 323 | Thermochemical CO2 splitting via redox cycling of ceria reticulated foam structures with dual-scale porosities. *Physical Chemistry Chemical Physics*, **2014**, 16, 10503-11 | 3.6 | 136 |
| 322 | Experimental Determination of the Radiative Properties of Particle Suspensions for High-Temperature Solar Receiver Applications. *Heat Transfer Engineering*, **2014**, 35, 272-280 | 1.7 | 13 |
| 321 | Thermal Reduction of Ceria within an Aerosol Reactor for H2O and CO2 Splitting. *Industrial & Engineering Chemistry Research*, **2014**, 53, 2175-2182 | 3.9 | 65 |
| 320 | Single-component and binary CO2 and H2O adsorption of amine-functionalized cellulose. *Environmental Science & Technology*, **2014**, 48, 2497-504 | 10.3 | 91 |
| 319 | Potential improvements in the optical and thermal efficiencies of parabolic trough concentrators. *Solar Energy*, **2014**, 107, 398-414 | 6.8 | 75 |
| 318 | Transient discrete-granule packed-bed reactor model for thermochemical energy storage. *Chemical Engineering Science*, **2014**, 117, 465-478 | 4.4 | 16 |
| 317 | Design of a 100 MWhth Packed-bed Thermal Energy Storage. *Energy Procedia*, **2014**, 49, 1071-1077 | 2.3 | 20 |
| 316 | Pore-level engineering of macroporous media for increased performance of solar-driven thermochemical fuel processing. *International Journal of Heat and Mass Transfer*, **2014**, 78, 688-698 | 4.9 | 58 |
| 315 | Nonparabolic solar concentrators matching the parabola. *Optics Letters*, **2014**, 39, 4301-4 | 3 | 6 |
| 314 | Tomography-based determination of porosity, specific area and permeability of snow and comparison with measurements. *Cold Regions Science and Technology*, **2014**, 97, 33-40 | 3.8 | 21 |
| 313 | Oxygen exchange materials for solar thermochemical splitting of H2O and CO2: a review. *Materials Today*, **2014**, 17, 341-348 | 21.8 | 257 |
| 312 | Diffusion of Oxygen in Ceria at Elevated Temperatures and Its Application to H2O/CO2 Splitting Thermochemical Redox Cycles. *Journal of Physical Chemistry C*, **2014**, 118, 5216-5225 | 3.8 | 92 |
| 311 | A Pressurized Air Receiver for Solar-driven Gas Turbines. *Energy Procedia*, **2014**, 49, 498-503 | 2.3 | 35 |
| 310 | Towards a Commercial Parabolic Trough CSP System Using Air as Heat Transfer Fluid. *Energy Procedia*, **2014**, 49, 381-385 | 2.3 | 33 |

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| 309 | A two-zone solar-driven gasifier concept: Reactor design and experimental evaluation with bagasse particles. *Fuel*, **2014**, 117, 680-687 | 7.1 | 41 |
| 308 | Investigations into Innovative and Sustainable Processes for the Carbothermic Production of Gaseous Aluminum **2014**, 771-776 | | |
| 307 | Combined Experimental-Numerical Approach to Determine Radiation Properties of Particle Suspensions. *Journal of Heat Transfer*, **2014**, 136, | 1.8 | 9 |
| 306 | Morphological Characterization and Effective Thermal Conductivity of Dual-Scale Reticulated Porous Structures. *Materials*, **2014**, 7, 7173-7195 | 3.5 | 35 |
| 305 | Pilot Scale Demonstration of a 100-kWth Solar Thermochemical Plant for the Thermal Dissociation of ZnO. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136, | 2.3 | 49 |
| 304 | Dynamic Modeling of a Solar Reactor for Zinc Oxide Thermal Dissociation and Experimental Validation Using IR Thermography. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136, | 2.3 | 17 |
| 303 | Design Point for Predicting Year-Round Performance of Solar Parabolic Trough Concentrator Systems. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136, | 2.3 | 9 |
| 302 | CRISPTower A Solar Power Tower R&D Initiative in India. *Energy Procedia*, **2014**, 57, 301-310 | 2.3 | 3 |
| 301 | Solar Trough Concentrator Design for Uniform Radiative Flux Distribution **2014**, | | 1 |
| 300 | Mechanism of Zn Particle Oxidation by HO and CO in the Presence of ZnO. *Chemistry of Materials*, **2014**, 26, 6486-6495 | 9.6 | 28 |
| 299 | Surpassing the 2D Limit: A 600x High-concentration PV Collector Based on a Parabolic trough with Tracking Secondary Optics. *Energy Procedia*, **2014**, 57, 285-290 | 2.3 | 5 |
| 298 | A 3 MWth parabolic trough CSP plant operating with air at up to 650 C **2014**, | | 4 |
| 297 | Stabilization of the outflow temperature of a packed-bed thermal energy storage by combining rocks with phase change materials. *Applied Thermal Engineering*, **2014**, 70, 316-320 | 5.8 | 89 |
| 296 | Vacuum Carbothermic Reduction of Alumina. *Mineral Processing and Extractive Metallurgy Review*, **2014**, 35, 126-135 | 3.1 | 26 |
| 295 | An instrumented sample holder for time-lapse microtomography measurements of snow under advective airflow. *Geoscientific Instrumentation, Methods and Data Systems*, **2014**, 3, 179-185 | 1.5 | 5 |
| 294 | Investigations into Innovative and Sustainable Processes for the Carbothermic Production of Gaseous Aluminum **2014**, 771-776 | | |
| 293 | Surface Modification of Graphite Particles Coated by Atomic Layer Deposition and Advances in Ceramic Composites. *International Journal of Applied Ceramic Technology*, **2013**, 10, 257-265 | 2 | 14 |
| 292 | Review of Heat Transfer Research for Solar Thermochemical Applications. *Journal of Thermal Science and Engineering Applications*, **2013**, 5, | 1.9 | 56 |

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| 291 | Stability of amine-functionalized cellulose during temperature-vacuum-swing cycling for CO2 capture from air. *Environmental Science & Technology*, **2013**, 47, 10063-70 | 10.3 | 81 |
| 290 | Kinetics of Mn2O3–Mn3O4 and Mn3O4–MnO Redox Reactions Performed under Concentrated Thermal Radiative Flux. *Energy & Fuels*, **2013**, 27, 4884-4890 | 4.1 | 49 |
| 289 | Materials and Processes for Renewable Energy Technologies. *Jom*, **2013**, 65, 1658-1659 | 2.1 | |
| 288 | Thermal Recycling of Waelz Oxide Using Concentrated Solar Energy. *Jom*, **2013**, 65, 1733-1743 | 2.1 | 15 |
| 287 | The effect of irradiance mismatch on a semi-dense array of triple-junction concentrator cells. *Solar Energy Materials and Solar Cells*, **2013**, 116, 238-251 | 6.4 | 19 |
| 286 | Sulphur based thermochemical cycles: Development and assessment of key components of the process. *International Journal of Hydrogen Energy*, **2013**, 38, 6197-6204 | 6.7 | 28 |
| 285 | Performance of compound parabolic concentrators with polygonal apertures. *Solar Energy*, **2013**, 95, 308-318 | 6.8 | 42 |
| 284 | Solar-driven steam-based gasification of sugarcane bagasse in a combined drop-tube and fixed-bed reactor—Thermodynamic, kinetic, and experimental analyses. *Biomass and Bioenergy*, **2013**, 52, 173-183 | 5.3 | 37 |
| 283 | Syngas Production by Thermochemical Gasification of Carbonaceous Waste Materials in a 150 kWth Packed-Bed Solar Reactor. *Energy & Fuels*, **2013**, 27, 4770-4776 | 4.1 | 55 |
| 282 | Lanthanum–Strontium–Manganese Perovskites as Redox Materials for Solar Thermochemical Splitting of H2O and CO2. *Energy & Fuels*, **2013**, 27, 4250-4257 | 4.1 | 255 |
| 281 | Synthesis, Characterization, and Thermochemical Redox Performance of Hf4+, Zr4+, and Sc3+Doped Ceria for Splitting CO2. *Journal of Physical Chemistry C*, **2013**, 117, 24104-24114 | 3.8 | 134 |
| 280 | On the Effect of the Presence of Solid Diluents during Zn Oxidation by CO2. *Industrial & Engineering Chemistry Research*, **2013**, 52, 1859-1869 | 3.9 | 21 |
| 279 | Tetrahedral mesh generation based on space indicator functions. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 1040-1056 | 2.4 | 21 |
| 278 | Theory and design of line-to-point focus solar concentrators with tracking secondary optics. *Applied Optics*, **2013**, 52, 8586-616 | 1.7 | 14 |
| 277 | Brewing fuels in a solar furnace. *MRS Bulletin*, **2013**, 38, 208-209 | 3.2 | 1 |
| 276 | One-Dimensional Heat and Mass Transfer and Discrete Granule Model of a Tubular Packed-Bed Reactor for Thermochemical Storage of Solar Energy **2013**, | | 1 |
| 275 | Metal Oxide Reduction Using a Solar-Driven Vacuum Thermogravimeter **2013**, | | 4 |
| 274 | Solar TE Converter Applications. *Springer Series in Materials Science*, **2013**, 365-382 | 0.9 | 4 |

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| 273 | A solar dish concentrator based on ellipsoidal polyester membrane facets. *Solar Energy*, **2012**, 86, 40-47 | 6.8 | 27 |
| 272 | Syngas production from H2O and CO2 over Zn particles in a packed-bed reactor. *AICHE Journal*, **2012**, 58, 625-631 | 3.6 | 26 |
| 271 | Packed-bed thermal storage for concentrated solar power Pilot-scale demonstration and industrial-scale design. *Solar Energy*, **2012**, 86, 3084-3098 | 6.8 | 230 |
| 270 | Thermally Driven Copper Oxide Redox Cycle for the Separation of Oxygen from Gases. *Industrial & Engineering Chemistry Research*, **2012**, 51, 7013-7021 | 3.9 | 27 |
| 269 | Thermogravimetric Pyrolysis and Gasification of Lignocellulosic Biomass and Kinetic Summative Law for Parallel Reactions with Cellulose, Xylan, and Lignin. *Energy & Fuels*, **2012**, 26, 357-364 | 4.1 | 34 |
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