# Peter Lund

List of Publications by Year
in descending order

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| 360 | 15,616 | 18436 62 | 27345 106 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 380 | 380 | 380 | 14533 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Review of energy system flexibility measures to enable high levels of variable renewable electricity. Renewable and Sustainable Energy Reviews, 2015, 45, 785-807. | 8.2 | 1,133 |
| 2 | A model for generating household electricity load profiles. International Journal of Energy Research, 2006, 30, 273-290. | 2.2 | 398 |
| 3 | Device Physics of Dye Solar Cells. Advanced Materials, 2010, 22, E210-34. | 11.1 | 371 |
| 4 | Device stability of perovskite solar cells â€“ A review. Renewable and Sustainable Energy Reviews, 2017, 77, 131-146. | 8.2 | 345 |
| 5 | Impact of H<sub>2</sub>O on organicâ€“inorganic hybrid perovskite solar cells. Energy and Environmental Science, 2017, 10, 2284-2311. | 15.6 | 345 |
| 6 | A multicomponent PCM wall optimized for passive solar heating. Energy and Buildings, 1991, 17, 259-270. | 3.1 | 274 |
| 7 | Review of stability for advanced dye solar cells. Energy and Environmental Science, 2010, 3, 418. | 15.6 | 260 |
| 8 | Effects of energy policies on industry expansion in renewable energy. Renewable Energy, 2009, 34, 53-64. | 4.3 | 229 |
| 9 | Stability assessment of alternative platinum free counter electrodes for dye-sensitized solar cells. Energy and Environmental Science, 2015, 8, 3495-3514. | 15.6 | 225 |
| 10 | Effects of large-scale photovoltaic power integration on electricity distribution networks. Renewable Energy, 2007, 32, 216-234. | 4.3 | 210 |
| 11 | Review of materials and manufacturing options for large area flexible dye solar cells. Renewable and Sustainable Energy Reviews, 2011, 15, 3717-3732. | 8.2 | 185 |
| 12 | Optimal and rule-based control strategies for energy flexibility in buildings with PV. Applied Energy, 2016, 161, 425-436. | 5.1 | 175 |
| 13 | Improving renewable energy policy planning and decision-making through a hybrid MCDM method. Energy Policy, 2020, 137, 111174. | 4.2 | 169 |
| 14 | Schottky Junction Effect on High Performance Fuel Cells Based on Nanocomposite Materials. Advanced Energy Materials, 2015, 5, 1401895. | 10.2 | 166 |
| 15 | Spectral Characteristics of Light Harvesting, Electron Injection, and Steady-State Charge Collection in Pressed TiO<sub>2</sub>Dye Solar Cells. Journal of Physical Chemistry C, 2008, 112, 5623-5637. | 1.5 | 163 |
| 16 | Measurement of current distribution in a free-breathing PEMFC. Journal of Power Sources, 2002, 106, 304-312. | 4.0 | 162 |
| 17 | Scalability and feasibility of photoelectrochemical H<sub>2</sub>evolution: the ultimate limit of Pt nanoparticle as an HER catalyst. Energy and Environmental Science, 2015, 8, 2991-2999. | 15.6 | 162 |
| 18 | A high-performance self-powered broadband photodetector based on a CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> perovskite/ZnO nanorod array heterostructure. Journal of Materials Chemistry C, 2016, 4, 7302-7308. | 2.7 | 159 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Progress on Electrolytes Development in Dye-Sensitized Solar Cells. Materials, 2019, 12, 1998. | 1.3 | 152 |
| 20 | Carbonâ€Doubleâ€Bondâ€Free Printed Solar Cells from TiO<sub>2</sub>/CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>/CuSCN/Au: Structural Control and Photoaging Effects. ChemPhysChem, 2014, 15, 1194-1200. | 1.0 | 148 |
| 21 | Novel fuel cell with nanocomposite functional layer designed by perovskite solar cell principle. Nano Energy, 2016, 19, 156-164. | 8.2 | 137 |
| 22 | Air Processed Inkjet Infiltrated Carbon Based Printed Perovskite Solar Cells with High Stability and Reproducibility. Advanced Materials Technologies, 2017, 2, 1600183. | 3.0 | 137 |
| 23 | Options for improving the load matching capability of distributed photovoltaics: Methodology and application to high-latitude data. Solar Energy, 2009, 83, 1953-1966. | 2.9 | 129 |
| 24 | Breakthrough fuel cell technology using ceria-based multi-functional nanocomposites. Applied Energy, 2013, 106, 163-175. | 5.1 | 126 |
| 25 | Improved flexibility with large-scale variable renewable power in cities through optimal demand side management and power-to-heat conversion. Energy Conversion and Management, 2016, 126, 649-661. | 4.4 | 122 |
| 26 | A new energy conversion technology based on nano-redox and nano-device processes. Nano Energy, 2013, 2, 1179-1185. | 8.2 | 117 |
| 27 | A review on solid oxide fuel cell durability: Latest progress, mechanisms, and study tools. Renewable and Sustainable Energy Reviews, 2022, 161, 112339. | 8.2 | 116 |
| 28 | Charge separation and transport in La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O 3-Î´ and ion-doping ceria heterostructure material for new generation fuel cell. Nano Energy, 2017, 37, 195-202. | 8.2 | 115 |
| 29 | Nanostructured dye solar cells on flexible substrates-Review. International Journal of Energy Research, 2009, 33, 1145-1160. | 2.2 | 109 |
| 30 | Impacts of distributed photovoltaics on network voltages: Stochastic simulations of three Swedish low-voltage distribution grids. Electric Power Systems Research, 2010, 80, 1562-1571. | 2.1 | 109 |
| 31 | Urban energy systems with smart multi-carrier energy networks and renewable energy generation. Renewable Energy, 2012, 48, 524-536. | 4.3 | 109 |
| 32 | Measurement of ohmic voltage losses in individual cells of a PEMFC stack. Journal of Power Sources, 2002, 112, 261-272. | 4.0 | 105 |
| 33 | Effect of energy storage on variations in wind power. Wind Energy, 2005, 8, 421-441. | 1.9 | 102 |
| 34 | Spray deposition and compression of TiO2 nanoparticle films for dye-sensitized solar cells on plastic substrates. Solar Energy Materials and Solar Cells, 2006, 90, 887-899. | 3.0 | 100 |
| 35 | Effect of extreme temperatures on battery charging and performance of electric vehicles. Journal of Power Sources, 2016, 328, 37-45. | 4.0 | 100 |
| 36 | Review and analysis of characterization methods and ionic conductivities for low-temperature solid oxide fuel cells (LT-SOFC). Journal of Power Sources, 2014, 263, 315-331. | 4.0 | 99 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Industrial sheet metals for nanocrystalline dye-sensitized solar cell structures. Solar Energy Materials and Solar Cells, 2006, 90, 2881-2893. | 3.0 | 97 |
| 38 | Smart energy system design for large clean power schemes in urban areas. Journal of Cleaner Production, 2015, 103, 437-445. | 4.6 | 95 |
| 39 | A review of demand side flexibility potential in Northern Europe. Renewable and Sustainable Energy Reviews, 2018, 91, 654-664. | 8.2 | 95 |
| 40 | Market penetration rates of new energy technologies. Energy Policy, 2006, 34, 3317-3326. | 4.2 | 92 |
| 41 | An organic PCM storage system with adjustable melting temperature. Solar Energy, 1991, 46, 275-278. | 2.9 | 90 |
| 42 | Electrochemical mechanisms of an advanced low-temperature fuel cell with a SrTiO<sub>3</sub> electrolyte. Journal of Materials Chemistry A, 2019, 7, 9638-9645. | 5.2 | 90 |
| 43 | Energy integration and interaction between buildings and vehicles: A state-of-the-art review. Renewable and Sustainable Energy Reviews, 2019, 114, 109337. | 8.2 | 85 |
| 44 | Application of a Triple-Conducting Heterostructure Electrolyte of Ba<sub>0.5</sub>Sr<sub>0.5</sub>Co<sub>0.1</sub>Fe<sub>0.7</sub>Zr<sub>0.1</sub>Y<sub>0.1</sub>O<sub>3â^'Î´</sub> and Ca<sub>0.04</sub>Ce<sub>0.80</sub>Sm<sub>0.16</sub>O<sub>2â^'Î´</sub> in a High-Performance Low-Temperature Solid Oxide Fuel Cell. ACS Applied Materials & Interfaces, 2020, 12, 35071-35080. | 4.0 | 84 |
| 45 | Impacts of EU carbon emission trade directive on energy-intensive industries â€" Indicative micro-economic analyses. Ecological Economics, 2007, 63, 799-806. | 2.9 | 82 |
| 46 | Review of modelling energy transitions pathways with application to energy system flexibility. Renewable and Sustainable Energy Reviews, 2019, 101, 440-452. | 8.2 | 82 |
| 47 | Use of bio-based carbon materials for improving biogas yield and digestate stability. Energy, 2018, 164, 898-909. | 4.5 | 81 |
| 48 | Outlook on biofuels in future studies: A systematic literature review. Renewable and Sustainable Energy Reviews, 2020, 134, 110326. | 8.2 | 81 |
| 49 | Energy system resilience â€" A review. Renewable and Sustainable Energy Reviews, 2021, 150, 111476. | 8.2 | 81 |
| 50 | Promoted electrocatalytic activity and ionic transport simultaneously in dual functional Ba0.5Sr0.5Fe0.8Sb0.2O3-Î´-Sm0.2Ce0.8O2-Î´ heterostructure. Applied Catalysis B: Environmental, 2021, 298, 120503. | 10.8 | 78 |
| 51 | Semiconductor Electrochemistry for Clean Energy Conversion and Storage. Electrochemical Energy Reviews, 2021, 4, 757-792. | 13.1 | 77 |
| 52 | Multivariate optimization of design trade-offs for solar low energy buildings. Energy and Buildings, 1999, 29, 189-205. | 3.1 | 76 |
| 53 | Flexibility of electric vehicles and space heating in net zero energy houses: an optimal control model with thermal dynamics and battery degradation. Applied Energy, 2017, 190, 800-812. | 5.1 | 75 |
| 54 | Review of zinc dendrite formation in zinc bromine redox flow battery. Renewable and Sustainable Energy Reviews, 2020, 127, 109838. | 8.2 | 75 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Charge transfer resistance of spray deposited and compressed counter electrodes for dye-sensitized nanoparticle solar cells on plastic substrates. Solar Energy Materials and Solar Cells, 2006, 90, 872-886. | 3.0 | 73 |
| 56 | Evaluation of planar free-breathing polymer electrolyte membrane fuel cell design. Journal of Power Sources, 2004, 129, 68-72. | 4.0 | 69 |
| 57 | An integrated scenario-based robust planning approach for foresight and strategic management with application to energy industry. Technological Forecasting and Social Change, 2016, 104, 162-171. | 6.2 | 69 |
| 58 | A single-component fuel cell reactor. International Journal of Hydrogen Energy, 2011, 36, 8536-8541. | 3.8 | 67 |
| 59 | Cobalt-Phosphate modified TiO2/BiVO4 nanoarrays photoanode for efficient water splitting. International Journal of Hydrogen Energy, 2017, 42, 5496-5504. | 3.8 | 67 |
| 60 | Sustainability evaluation and sensitivity analysis of district heating systems coupled to geothermal and solar resources. Energy Conversion and Management, 2020, 220, 113084. | 4.4 | 67 |
| 61 | Title is missing!. Journal of Applied Electrochemistry, 2003, 33, 265-271. | 1.5 | 66 |
| 62 | Large-scale urban renewable electricity schemes â€“ Integration and interfacing aspects. Energy Conversion and Management, 2012, 63, 162-172. | 4.4 | 66 |
| 63 | Dye-sensitized solar cells with inkjet-printed dyes. Energy and Environmental Science, 2016, 9, 2453-2462. | 15.6 | 65 |
| 64 | High performance dye-sensitized solar cells with inkjet printed ionic liquid electrolyte. Nano Energy, 2015, 17, 206-215. | 8.2 | 62 |
| 65 | Modeling flexibility and optimal use of existing power plants with large-scale variable renewable power schemes. Energy, 2016, 112, 364-375. | 4.5 | 62 |
| 66 | Thermodynamic performance analysis and multi-criteria optimization of a hybrid combined heat and power system coupled with geothermal energy. Energy Conversion and Management, 2020, 210, 112741. | 4.4 | 61 |
| 67 | Deep decarbonization of urban energy systems through renewable energy and sector-coupling flexibility strategies. Journal of Environmental Management, 2020, 260, 110090. | 3.8 | 60 |
| 68 | Co-estimating the state of charge and health of lithium batteries through combining a minimalist electrochemical model and an equivalent circuit model. Energy, 2022, 240, 122815. | 4.5 | 60 |
| 69 | Effect of cathode structure on planar free-breathing PEMFC. Journal of Power Sources, 2004, 138, 205-210. | 4.0 | 57 |
| 70 | Analyzing National and Local Pathways to Carbon-Neutrality from Technology, Emissions, and Resilience Perspectivesâ€”Case of Finland. Energies, 2019, 12, 949. | 1.6 | 57 |
| 71 | Photovoltaic fiber. Thin Solid Films, 2009, 517, 2799-2802. | 0.8 | 56 |
| 72 | Combining solar resource mapping and energy system integration methods for realistic valuation of urban solar energy potential. Solar Energy, 2016, 135, 325-336. | 2.9 | 56 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Wide bandgap oxides for low-temperature single-layered nanocomposite fuel cell. Nano Energy, 2018, 53, 391-397. | 8.2 | 55 |
| 74 | Performance evaluation of complex electricity generation systems: A dynamic network-based data envelopment analysis approach. Energy Economics, 2020, 91, 104894. | 5.6 | 55 |
| 75 | Initial Performance of Dye Solar Cells on Stainless Steel Substrates. Journal of Physical Chemistry C, 2008, 112, 4011-4017. | 1.5 | 54 |
| 76 | Dye Solar Cells on ITO-PET Substrate with TiO[sub 2] Recombination Blocking Layers. Journal of the Electrochemical Society, 2009, 156, B876. | 1.3 | 54 |
| 77 | Boosting new renewable technologies towards grid parity â€“ Economic and policy aspects. Renewable Energy, 2011, 36, 2776-2784. | 4.3 | 54 |
| 78 | Mechanically manufactured selective solar absorber surfaces. Solar Energy Materials and Solar Cells, 2003, 79, 273-283. | 3.0 | 53 |
| 79 | A durable SWCNT/PET polymer foil based metal free counter electrode for flexible dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 19609-19615. | 5.2 | 53 |
| 80 | Semiconductor Fe-doped SrTiO3-Î´ perovskite electrolyte for low-temperature solid oxide fuel cell (LT-SOFC) operating below 520ÂÂ°C. International Journal of Hydrogen Energy, 2020, 45, 14470-14479. | 3.8 | 52 |
| 81 | Mutual Conversion of COâ€“CO<sub>2</sub> on a Perovskite Fuel Electrode with Endogenous Alloy Nanoparticles for Reversible Solid Oxide Cells. ACS Applied Materials & Interfaces, 2022, 14, 9138-9150. | 4.0 | 52 |
| 82 | A new energy conversion technology joining electrochemical and physical principles. RSC Advances, 2012, 2, 5066. | 1.7 | 51 |
| 83 | Nanocellulose aerogel membranes for optimal electrolyte filling in dye solar cells. Nano Energy, 2014, 8, 95-102. | 8.2 | 51 |
| 84 | TiO<sub>2</sub> nanotubes for dyeâ€sensitized solar cellsâ€”A review. Energy Science and Engineering, 2021, 9, 921-937. | 1.9 | 51 |
| 85 | Single-Walled Carbon Nanotube Thin-Film Counter Electrodes for Indium Tin Oxide-Free Plastic Dye Solar Cells. Journal of the Electrochemical Society, 2010, 157, B1831. | 1.3 | 50 |
| 86 | Effect of electrolyte bleaching on the stability and performance of dye solar cells. Physical Chemistry Chemical Physics, 2014, 16, 6092. | 1.3 | 50 |
| 87 | Climate-friendly but socially rejected energy-transition pathways: The integration of techno-economic and socio-technical approaches in the Nordic-Baltic region. Energy Research and Social Science, 2020, 67, 101559. | 3.0 | 50 |
| 88 | Functional ceria-based nanocomposites for advanced low-temperature (300â€“600ÂÂ°C) solid oxide fuel cell: A comprehensive review. Materials Today Energy, 2020, 15, 100373. | 2.5 | 48 |
| 89 | In situ image processing method to investigate performance and stability of dye solar cells. Solar Energy, 2012, 86, 331-338. | 2.9 | 47 |
| 90 | Configuration optimization and selection of a photovoltaic-gas integrated energy system considering renewable energy penetration in power grid. Energy Conversion and Management, 2022, 254, 115260. | 4.4 | 46 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Effect of Nonuniform Generation and Inefficient Collection of Electrons on the Dynamic Photocurrent and Photovoltage Response of Nanostructured Photoelectrodes. Journal of Physical Chemistry C, 2008, 112, 20491-20504. | 1.5 | 45 |
| 92 | Impacts of different data averaging times on statistical analysis of distributed domestic photovoltaic systems. Solar Energy, 2010, 84, 492-500. | 2.9 | 45 |
| 93 | Metallic and plastic dye solar cells. Wiley Interdisciplinary Reviews: Energy and Environment, 2013, 2, 104-120. | 1.9 | 45 |
| 94 | Models for generating place and time dependent urban energy demand profiles. Applied Energy, 2014, 130, 256-264. | 5.1 | 45 |
| 95 | Improving the performance of a 2-stage large aperture parabolic trough solar concentrator using a secondary reflector designed by adaptive method. Renewable Energy, 2020, 152, 23-33. | 4.3 | 45 |
| 96 | Title is missing!. Journal of Applied Electrochemistry, 2002, 32, 1081-1089. | 1.5 | 44 |
| 97 | The role of micro-nano pores in interfacial solar evaporation systems â€“ A review. Applied Energy, 2021, 292, 116871. | 5.1 | 44 |
| 98 | Titanium sinter as gas diffusion backing in PEMFC. Journal of Power Sources, 2003, 118, 183-188. | 4.0 | 43 |
| 99 | Rediscovering a Key Interface in Dye-Sensitized Solar Cells: Guanidinium and Iodine Competition for Binding Sites at the Dye/Electrolyte Surface. Journal of the American Chemical Society, 2014, 136, 7286-7294. | 6.6 | 43 |
| 100 | Development of a self-sufficient solar-hydrogen energy system. International Journal of Hydrogen Energy, 1994, 19, 99-106. | 3.8 | 42 |
| 101 | The link between political decision-making and energy options: Assessing future role of renewable energy and energy efficiency in Finland. Energy, 2007, 32, 2271-2281. | 4.5 | 42 |
| 102 | Effectiveness of policy measures in transforming the energy system. Energy Policy, 2007, 35, 627-639. | 4.2 | 42 |
| 103 | Improving the state of charge estimation of reused lithium-ion batteries by abating hysteresis using machine learning technique. Journal of Energy Storage, 2020, 32, 101678. | 3.9 | 42 |
| 104 | Performance analysis and exergo-economic optimization of a solar-driven adjustable tri-generation system. Energy Conversion and Management, 2021, 233, 113873. | 4.4 | 42 |
| 105 | Optimal sizing of grid-connected PV-systems for different climates and array orientations: a simulation study. Solar Energy Materials and Solar Cells, 1994, 35, 445-451. | 3.0 | 40 |
| 106 | Integrated performance analysis of a space heating system assisted by photovoltaic/thermal collectors and ground source heat pump for hotel and office building types. Renewable Energy, 2021, 169, 925-934. | 4.3 | 40 |
| 107 | Stability of Dye Solar Cells with Photoelectrode on Metal Substrates. Journal of the Electrochemical Society, 2010, 157, B814. | 1.3 | 39 |
| 108 | Influence of TiO2 compact layer precursor on the performance of perovskite solar cells. Organic Electronics, 2017, 41, 287-293. | 1.4 | 39 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Mechanism for Major Improvement in SOFC Electrolyte Conductivity When Using Lithium Compounds as Anode. ACS Applied Energy Materials, 2020, 3, 4134-4138. | 2.5 | 39 |
| 110 | Exergo-economic assessment and sensitivity analysis of a solar-driven combined cooling, heating and power system with organic Rankine cycle and absorption heat pump. Energy, 2021, 230, 120717. | 4.5 | 39 |
| 111 | Multi-objective optimization of an integrated energy system against energy, supply-demand matching and exergo-environmental cost over the whole life-cycle. Energy Conversion and Management, 2022, 254, 115203. | 4.4 | 39 |
| 112 | An improved synthesis method of ceria-carbonate based composite electrolytes for low-temperature SOFC fuel cells. International Journal of Hydrogen Energy, 2013, 38, 16532-16538. | 3.8 | 38 |
| 113 | Advanced low-temperature ceramic nanocomposite fuel cells using ultra high ionic conductivity electrolytes synthesized through freeze-dried method and solid-route. Materials Today Energy, 2017, 5, 338-346. | 2.5 | 38 |
| 114 | Daylight optimization of multifunctional solar facades. Solar Energy, 2000, 68, 223-235. | 2.9 | 37 |
| 115 | Regenerative effects by temperature variations in dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2007, 91, 1733-1742. | 3.0 | 37 |
| 116 | Optimal sizing of solar array and inverter in grid-connected photovoltaic systems. Solar Energy Materials and Solar Cells, 1994, 32, 95-114. | 3.0 | 36 |
| 117 | AB2 metal hydrides for high-pressure and narrow temperature interval applications. Journal of Alloys and Compounds, 1998, 269, 288-293. | 2.8 | 36 |
| 118 | A carbon gel catalyst layer for the roll-to-roll production of dye solar cells. Carbon, 2011, 49, 528-532. | 5.4 | 36 |
| 119 | Potential of distributed photovoltaics in urban Chile. Solar Energy, 2016, 135, 43-49. | 2.9 | 36 |
| 120 | Status and future strategies for Concentrating Solar Power in China. Energy Science and Engineering, 2017, 5, 100-109. | 1.9 | 36 |
| 121 | Impact of Film Thickness of Ultrathin Dip-Coated Compact TiO<sub>2</sub> Layers on the Performance of Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 17906-17913. | 4.0 | 36 |
| 122 | Novel Perovskite Semiconductor Based on Co/Fe-Codoped LBZY (La<sub>0.5</sub>Ba<sub>0.5</sub>) Tj ETQq0 0 0 rgBT /Overlock 10 Electrolyte in Ceramic Fuel Cells. ACS Applied Energy Materials, 2021, 4, 5798-5808. | 2.5 | 36 |
| 123 | A numerical model for seasonal storage of solar heat in the ground by vertical pipes. Solar Energy, 1985, 34, 351-366. | 2.9 | 35 |
| 124 | Modeling and simulation of aquifer storage energy systems. Solar Energy, 1994, 53, 237-247. | 2.9 | 35 |
| 125 | Metal hydride hydrogen storage for near-ambient temperature and atmospheric pressure applications, a PDSC study. International Journal of Hydrogen Energy, 1995, 20, 897-909. | 3.8 | 35 |
| 126 | Mass transport in the cathode of a free-breathing polymer electrolyte membrane fuel cell. Journal of Applied Electrochemistry, 2003, 33, 979-987. | 1.5 | 35 |

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|---|---|---|---|
| 127 | Exploring past energy changes and their implications for the pace of penetration of new energy technologies. Energy, 2010, 35, 647-656. | 4.5 | 35 |
| 128 | A novel 2-stage dish concentrator with improved optical performance for concentrating solar power plants. Renewable Energy, 2017, 108, 92-97. | 4.3 | 35 |
| 129 | Critical analysis on the quality of stability studies of perovskite and dye solar cells. Energy and Environmental Science, 2018, 11, 730-738. | 15.6 | 35 |
| 130 | A novel clustering algorithm for grouping and cascadeÂutilization of retired Li-ion batteries. Journal of Energy Storage, 2020, 29, 101303. | 3.9 | 35 |
| 131 | Encapsulation of commercial and emerging solar cells with focus on perovskite solar cells. Solar Energy, 2022, 237, 264-283. | 2.9 | 35 |
| 132 | Combined hydrogen compressing and heat transforming through metal hydrides. International Journal of Hydrogen Energy, 1999, 24, 441-448. | 3.8 | 34 |
| 133 | Sizing and applicability considerations of solar combisystems. Solar Energy, 2005, 78, 59-71. | 2.9 | 34 |
| 134 | Reducing convective heat losses in solar dish cavity receivers through a modified air-curtain system. Solar Energy, 2018, 166, 50-58. | 2.9 | 34 |
| 135 | Estimation and prediction of state of health of electric vehicle batteries using discrete incremental capacity analysis based on real driving data. Energy, 2021, 225, 120160. | 4.5 | 34 |
| 136 | Ideal scheme selection of an integrated conventional and renewable energy system combining multi-objective optimization and matching performance analysis. Energy Conversion and Management, 2022, 251, 114989. | 4.4 | 34 |
| 137 | Computational approaches for improving seasonal storage systems based on hydrogen technologies. International Journal of Hydrogen Energy, 1995, 20, 575-585. | 3.8 | 33 |
| 138 | Fast market penetration of energy technologies in retrospect with application to clean energy futures. Applied Energy, 2010, 87, 3575-3583. | 5.1 | 33 |
| 139 | Different flexibility options for better system integration of wind power. Energy Strategy Reviews, 2019, 26, 100368. | 3.3 | 33 |
| 140 | Stabilization of metal counter electrodes for dye solar cells. Journal of Electroanalytical Chemistry, 2011, 653, 93-99. | 1.9 | 32 |
| 141 | Do Counter Electrodes on Metal Substrates Work with Cobalt Complex Based Electrolyte in Dye Sensitized Solar Cells?. Journal of the Electrochemical Society, 2013, 160, H132-H137. | 1.3 | 32 |
| 142 | Validating the technological feasibility of yttria-stabilized zirconia-based semiconducting-ionic composite in intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2018, 384, 318-327. | 4.0 | 32 |
| 143 | Two-Dimensional Time-Dependent Numerical Modeling of Edge Effects in Dye Solar Cells. Journal of Physical Chemistry C, 2011, 115, 7019-7031. | 1.5 | 31 |
| 144 | TiO<sub>2</sub>/ZnO/TiO<sub>2</sub>sandwich multi-layer films as a hole-blocking layer for efficient perovskite solar cells. International Journal of Energy Research, 2016, 40, 806-813. | 2.2 | 31 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Electrolyser-metal hydride-fuel cell system for seasonal energy storage. International Journal of Hydrogen Energy, 1998, 23, 267-271. | 3.8 | 30 |
| 146 | Standardized Procedures Important for Improving Single-Component Ceramic Fuel Cell Technology. ACS Energy Letters, 2017, 2, 2752-2755. | 8.8 | 30 |
| 147 | Semiconductor Nb-Doped SrTiO<sub>3â^'Î´</sub> Perovskite Electrolyte for a Ceramic Fuel Cell. ACS Applied Energy Materials, 2021, 4, 365-375. | 2.5 | 30 |
| 148 | Simulation of solar hydrogen energy systems. Solar Energy, 1994, 53, 267-278. | 2.9 | 29 |
| 149 | High conductive (LiNaK) 2 CO 3 Ce 0.85 Sm 0.15 O 2 electrolyte compositions for IT-SOFC applications. International Journal of Hydrogen Energy, 2017, 42, 20904-20909. | 3.8 | 29 |
| 150 | Coral-shaped porous LiFePO4/graphene hybrids for high rate and all-climate battery applications. Energy Storage Materials, 2019, 21, 457-463. | 9.5 | 29 |
| 151 | Rational design of highly efficient flexible and transparent p-type composite electrode based on single-walled carbon nanotubes. Nano Energy, 2020, 67, 104183. | 8.2 | 29 |
| 152 | Straight-through all-glass evacuated tube solar collector for low and medium temperature applications. Solar Energy, 2020, 201, 935-943. | 2.9 | 29 |
| 153 | Long-Term Stability of Dye-Sensitized Solar Cells Assembled with Cobalt Polymer Gel Electrolyte. Journal of Physical Chemistry C, 2017, 121, 17577-17585. | 1.5 | 28 |
| 154 | Semiconductor-ionic materials could play an important role in advanced fuel-to-electricity conversion. International Journal of Energy Research, 2018, 42, 3413-3415. | 2.2 | 28 |
| 155 | Analyzing the effects of uncertainties on the modelling of low-carbon energy system pathways. Energy, 2020, 201, 117652. | 4.5 | 28 |
| 156 | Interface engineering of bi-layer semiconductor SrCoSnO3-Î´-CeO2-Î´ heterojunction electrolyte for boosting the electrochemical performance of low-temperature ceramic fuel cell. International Journal of Hydrogen Energy, 2021, 46, 33969-33977. | 3.8 | 28 |
| 157 | Multi-objective optimization of a solar-driven trigeneration system considering power-to-heat storage and carbon tax. Energy, 2022, 250, 123756. | 4.5 | 28 |
| 158 | Design and performance evaluation of a high-temperature cavity receiver for a 2-stage dish concentrator. Solar Energy, 2018, 174, 1126-1132. | 2.9 | 27 |
| 159 | Radiation transmission measurements for solar ponds. Solar Energy, 1984, 33, 237-240. | 2.9 | 26 |
| 160 | Policy inclusiveness and niche development: Examples from wind energy and photovoltaics in Denmark, Germany, Finland, and Spain. Energy Research and Social Science, 2015, 6, 136-145. | 3.0 | 26 |
| 161 | Frugal energy innovations for developing countries â€“ a framework. Global Challenges, 2017, 1, 9-19. | 1.8 | 26 |
| 162 | Tailoring triple charge conduction in BaCo0.2Fe0.1Ce0.2Tm0.1Zr0.3Y0.1O3â^'Î´ semiconductor electrolyte for boosting solid oxide fuel cell performance. Renewable Energy, 2021, 172, 336-349. | 4.3 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Low temperature ceramic fuel cells employing lithium compounds: A review. Journal of Power Sources, 2021, 503, 230070. | 4.0 | 26 |
| 164 | Operation experiences of a phosphoric acid fuel cell in a solar hydrogen energy system. International Journal of Hydrogen Energy, 1997, 22, 707-713. | 3.8 | 25 |
| 165 | Optical analysis of solar collector with new V-shaped CPC. Solar Energy, 2016, 135, 780-785. | 2.9 | 25 |
| 166 | Effect of major policy disruptions in energy system transition: Case Finland. Energy Policy, 2018, 116, 323-336. | 4.2 | 25 |
| 167 | Improving the performance of large-aperture parabolic trough solar concentrator using semi-circular absorber tube with external fin and flat-plate radiation shield. Renewable Energy, 2020, 159, 1215-1223. | 4.3 | 25 |
| 168 | Flexible metal-free counter electrode for dye solar cells based on conductive polymer and carbon nanotubes. Journal of Electroanalytical Chemistry, 2012, 683, 70-74. | 1.9 | 24 |
| 169 | Optimization of stand-alone photovoltaic systems with hydrogen storage for total energy self-sufficiency. International Journal of Hydrogen Energy, 1991, 16, 735-740. | 3.8 | 23 |
| 170 | Comparison of dye solar cell counter electrodes based on different carbon nanostructures. Thin Solid Films, 2011, 519, 8125-8134. | 0.8 | 23 |
| 171 | A Singleâ€Walled Carbon Nanotube Coated Flexible PVC Counter Electrode for Dyeâ€Sensitized Solar Cells. Advanced Materials Interfaces, 2014, 1, 1300055. | 1.9 | 23 |
| 172 | Rheological characterization of liquid electrolytes for drop-on-demand inkjet printing. Organic Electronics, 2016, 38, 307-315. | 1.4 | 23 |
| 173 | A facile method to produce TiO2 nanorods for high-efficiency dye solar cells. Journal of Power Sources, 2019, 438, 227012. | 4.0 | 23 |
| 174 | Pathway Analysis of a Zero-Emission Transition in the Nordic-Baltic Region. Energies, 2019, 12, 3337. | 1.6 | 23 |
| 175 | Non-doped CeO2-carbonate nanocomposite electrolyte for low temperature solid oxide fuel cells. Ceramics International, 2020, 46, 29290-29296. | 2.3 | 23 |
| 176 | Combining CFD and artificial neural network techniques to predict the thermal performance of all-glass straight evacuated tube solar collector. Energy, 2021, 220, 119713. | 4.5 | 23 |
| 177 | Comment on â€œHow green is blue hydrogen?â€. Energy Science and Engineering, 2022, 10, 1944-1954. | 1.9 | 23 |
| 178 | Effect of substitution on hysteresis in some high-pressure AB2 and AB5 metal hydrides. Journal of Alloys and Compounds, 1999, 293-295, 67-73. | 2.8 | 22 |
| 179 | Highly conductive, non-permeable, fiber based substrate for counter electrode application in dye-sensitized solar cells. Nano Energy, 2014, 9, 212-220. | 8.2 | 22 |
| 180 | Assessing the impact of optical errors in a novel 2-stage dish concentrator using Monte-Carlo ray-tracing simulation. Renewable Energy, 2018, 123, 603-615. | 4.3 | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Core/shell Cu/FePtCu nanoparticles with face-centered tetragonal texture: An active and stable low-Pt catalyst for enhanced oxygen reduction. Nano Energy, 2018, 54, 280-287. | 8.2 | 22 |
| 182 | Capacity matching of storage to PV in a global frame with different loads profiles. Journal of Energy Storage, 2018, 18, 218-228. | 3.9 | 22 |
| 183 | Comparative study of heat transfer enhancement using different fins in semi-circular absorber tube for large-aperture trough solar concentrator. Renewable Energy, 2021, 169, 1229-1241. | 4.3 | 22 |
| 184 | A comparative assessment of air quality across European countries using an integrated decision support model. Socio-Economic Planning Sciences, 2022, 81, 101198. | 2.5 | 22 |
| 185 | Demonstrating the potential of iron-doped strontium titanate electrolyte with high-performance for low temperature ceramic fuel cells. Renewable Energy, 2022, 196, 901-911. | 4.3 | 22 |
| 186 | Feasibility of solar pond heating for northern cold climates. Solar Energy, 1984, 33, 209-215. | 2.9 | 21 |
| 187 | Spatial distribution and decrease of dye solar cell performance induced by electrolyte filling. Electrochemistry Communications, 2009, 11, 25-27. | 2.3 | 21 |
| 188 | Highly catalytic carbon nanotube counter electrode on plastic for dye solar cells utilizing cobalt-based redox mediator. Electrochimica Acta, 2013, 111, 206-209. | 2.6 | 21 |
| 189 | Physical Modeling of Photoelectrochemical Hydrogen Production Devices. Journal of Physical Chemistry C, 2015, 119, 21747-21766. | 1.5 | 21 |
| 190 | Inkjet-printed platinum counter electrodes for dye-sensitized solar cells. Organic Electronics, 2017, 44, 159-167. | 1.4 | 21 |
| 191 | Modelling energy production flexibility: system dynamics approach. Energy Procedia, 2018, 147, 503-509. | 1.8 | 21 |
| 192 | Electrochemical Properties of a Dual-Ion Semiconductor-Ionic Co<sub>0.2</sub>Zn<sub>0.8</sub>O-Sm<sub>0.20</sub>Ce<sub>0.80</sub>O<sub>2â^'Î´</sub> Composite for a High-Performance Low-Temperature Solid Oxide Fuel Cell. ACS Applied Energy Materials, 2021, 4, 194-207. | 2.5 | 21 |
| 193 | Upfront resource requirements for large-scale exploitation schemes of new renewable technologies. Renewable Energy, 2007, 32, 442-458. | 4.3 | 20 |
| 194 | High performance low temperature carbon composite catalysts for flexible dye sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 17689. | 1.3 | 20 |
| 195 | How fast can businesses in the new energy sector grow? An analysis of critical factors. Renewable Energy, 2014, 66, 33-40. | 4.3 | 20 |
| 196 | Performance Improvement of Perovskite Solar Cells Based on PCBM-Modified ZnO-Nanorod Arrays. IEEE Journal of Photovoltaics, 2016, 6, 1530-1536. | 1.5 | 20 |
| 197 | Thermodynamic performance analysis and modified thermo-ecological cost optimization of a hybrid district heating system considering energy levels. Energy, 2021, 224, 120067. | 4.5 | 20 |
| 198 | Techno-economic cost assessment of a combined cooling heating and power system coupled to organic Rankine cycle with life cycle method. Energy, 2022, 239, 121939. | 4.5 | 20 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Coupling Variable Renewable Electricity Production to the Heating Sector through Curtailment and Power-to-heat Strategies for Accelerated Emission Reduction. Future Cities and Environment, 2019, 5, . | 0.6 | 20 |
| 200 | Feasibility study of a metal hydride hydrogen store for a self-sufficient solar hydrogen energy system. International Journal of Hydrogen Energy, 1996, 21, 213-221. | 3.8 | 19 |
| 201 | Effect of molecular filtering and electrolyte composition on the spatial variation in performance of dye solar cells. Journal of Electroanalytical Chemistry, 2012, 664, 63-72. | 1.9 | 19 |
| 202 | Clean energy systems as mainstream energy options. International Journal of Energy Research, 2016, 40, 4-12. | 2.2 | 19 |
| 203 | Influence of sintering temperature on ceramic fuel cell electrolyte conductivity with lithium-compound electrode. Ceramics International, 2020, 46, 17545-17552. | 2.3 | 19 |
| 204 | Beyond hydrophobicity: how F4-TCNQ doping of the hole transport material improves stability of mesoporous triple-cation perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 11721-11731. | 5.2 | 19 |
| 205 | Control of battery backed photovoltaic hydrogen production. International Journal of Hydrogen Energy, 1993, 18, 383-390. | 3.8 | 18 |
| 206 | Microstructural analysis of selective C/Al2O3/Al solar absorber surfaces. Thin Solid Films, 2003, 425, 24-30. | 0.8 | 18 |
| 207 | Decentralized electricity system sizing and placement in distribution networks. Applied Energy, 2010, 87, 1865-1869. | 5.1 | 18 |
| 208 | The Effect of Electrolyte Purification on the Performance and Long-Term Stability of Dye-Sensitized Solar Cells. Journal of the Electrochemical Society, 2015, 162, H661-H670. | 1.3 | 18 |
| 209 | Recent progress in flexible dye solar cells. Wiley Interdisciplinary Reviews: Energy and Environment, 2018, 7, e302. | 1.9 | 18 |
| 210 | Nanocellulose and Nanochitin Cryogels Improve the Efficiency of Dye Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 10257-10265. | 3.2 | 18 |
| 211 | The effect of dodecylammonium chloride on the film morphology, crystallinity, and performance of lead-free Bi-based solution-processed photovoltaics devices. Solar Energy, 2020, 207, 1356-1363. | 2.9 | 18 |
| 212 | A Review of the Compound Parabolic Concentrator (CPC) with a Tubular Absorber. Energies, 2020, 13, 695. | 1.6 | 18 |
| 213 | Effect of Ti foil size on the micro sizes of anodic TiO2 nanotube array and photoelectrochemical water splitting performance. Chemical Engineering Journal, 2021, 425, 131415. | 6.6 | 18 |
| 214 | Microstructural optimization and extended durability studies of low-cost rough graphiteâ€“aluminium solar absorber surfaces. Renewable Energy, 2004, 29, 823-839. | 4.3 | 17 |
| 215 | Performance of planar free-breathing PEMFC at temperatures below freezing. Journal of Power Sources, 2006, 154, 86-94. | 4.0 | 17 |
| 216 | Segmented Cell Design for Improved Factoring of Aging Effects in Dye Solar Cells. Journal of Physical Chemistry C, 2009, 113, 10297-10302. | 1.5 | 17 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Improving catalyst stability in nano-structured solar and fuel cells. Catalysis Today, 2016, 259, 259-265. | 2.2 | 17 |
| 218 | Biobased aerogels with different surface charge as electrolyte carrierÂmembranes in quantum dot-sensitized solar cell. Cellulose, 2018, 25, 3363-3375. | 2.4 | 17 |
| 219 | Printed single-walled carbon-nanotubes-based counter electrodes for dye-sensitized solar cells with copper-based redox mediators. Semiconductor Science and Technology, 2019, 34, 105001. | 1.0 | 17 |
| 220 | Low-temperature solid oxide fuel cells based on Tm-doped SrCeO2-Î´ semiconductor electrolytes. Materials Today Energy, 2021, 20, 100661. | 2.5 | 17 |
| 221 | A general design methodology for seasonal storage solar systems. Solar Energy, 1989, 42, 235-251. | 2.9 | 16 |
| 222 | Enhanced conductivity of SDC based nanocomposite electrolyte by spark plasma sintering. International Journal of Hydrogen Energy, 2014, 39, 14391-14396. | 3.8 | 16 |
| 223 | Growth strategies of incumbent utilities as contextually embedded: Examples from Denmark, Germany, Finland and Spain. Technology in Society, 2014, 38, 81-92. | 4.8 | 16 |
| 224 | Identifying bottlenecks in charging infrastructure of plug-in hybrid electric vehicles through agent-based traffic simulation. International Journal of Low-Carbon Technologies, 2015, 10, 110-118. | 1.2 | 16 |
| 225 | Evaluation of the reliability of solar micro-grids in emerging markets â€“ Issues and solutions. Energy for Sustainable Development, 2019, 48, 34-42. | 2.0 | 16 |
| 226 | Modeling of Zinc Bromine redox flow battery with application to channel design. Journal of Power Sources, 2020, 450, 227436. | 4.0 | 16 |
| 227 | Stability of cobalt complex based dye solar cells with PEDOT and Pt catalysts and different electrolyte concentrations. Electrochimica Acta, 2020, 335, 135652. | 2.6 | 16 |
| 228 | SOLCHIPSâ€”A fast predesign and optimization tool for solar heating with seasonal storage. Solar Energy, 1992, 48, 291-300. | 2.9 | 15 |
| 229 | Investigation of Temperature and Aging Effects in Nanostructured Dye Solar Cells Studied by Electrochemical Impedance Spectroscopy. International Journal of Photoenergy, 2009, 2009, 1-15. | 1.4 | 15 |
| 230 | Effectiveness of smart charging of electric vehicles under power limitations. International Journal of Energy Research, 2014, 38, 404-414. | 2.2 | 15 |
| 231 | Energy policy planning near grid parity using a price-driven technology penetration model. Technological Forecasting and Social Change, 2015, 90, 389-399. | 6.2 | 15 |
| 232 | Testing dyeâ€sensitized solar cells in harsh northern outdoor conditions. Energy Science and Engineering, 2018, 6, 187-200. | 1.9 | 15 |
| 233 | Thermal Performance Analysis of a Direct-Heated Recompression Supercritical Carbon Dioxide Brayton Cycle Using Solar Concentrators. Energies, 2019, 12, 4358. | 1.6 | 15 |
| 234 | High performance integrated receiver-storage system for concentrating solar power beam-down system. Solar Energy, 2019, 187, 85-94. | 2.9 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 235 | Coking resistant Niâ€“La0.8Sr0.2FeO3 composite anode improves the stability of syngas-fueled SOFC. International Journal of Hydrogen Energy, 2021, 46, 9809-9817. | 3.8 | 15 |
| 236 | Simulation studies of the expected performance of Kerava solar village. International Journal of Energy Research, 1983, 7, 347-357. | 2.2 | 14 |
| 237 | Thermal stability and moisture resistance of C/Al2O3/Al solar absorber surfaces. Solar Energy Materials and Solar Cells, 2004, 82, 361-373. | 3.0 | 14 |
| 238 | Moisture sensor at glass/polymer interface for monitoring of photovoltaic module encapsulants. Sensors and Actuators A: Physical, 2006, 125, 281-287. | 2.0 | 14 |
| 239 | Thin Film Nano Solar Cellsâ€”From Device Optimization to Upscaling. Journal of Nanoscience and Nanotechnology, 2010, 10, 1078-1084. | 0.9 | 14 |
| 240 | Photovoltaic properties of dye sensitised solar cells using TiO 2 nanotube arrays for photoanodes: Role of hydrochloric acid treatment. Applied Surface Science, 2015, 355, 256-261. | 3.1 | 14 |
| 241 | A hybrid lithium-ion battery model for system-level analyses. International Journal of Energy Research, 2016, 40, 1576-1592. | 2.2 | 14 |
| 242 | The business of distributed solar power: a comparative case study of centralized charging stations and solar microgrids. Wiley Interdisciplinary Reviews: Energy and Environment, 2016, 5, 640-648. | 1.9 | 14 |
| 243 | Application of dye-sensitized and perovskite solar cells on flexible substrates. Flexible and Printed Electronics, 2018, 3, 013002. | 1.5 | 14 |
| 244 | Controlling anodization time to monitor film thickness, phase composition and crystal orientation during anodic growth of TiO2 nanotubes. Electrochemistry Communications, 2022, 134, 107168. | 2.3 | 14 |
| 245 | Improving the accuracy of predicting the performance of solar collectors through clustering analysis with artificial neural network models. Energy Reports, 2022, 8, 3970-3981. | 2.5 | 14 |
| 246 | Hysteresis in Ce-based AB5-type metal hydrides. Journal of Materials Science, 2000, 35, 133-137. | 1.7 | 13 |
| 247 | Carbon nanotubeâ€“amorphous silicon hybrid solar cell with improved conversion efficiency. Nanotechnology, 2016, 27, 185401. | 1.3 | 13 |
| 248 | Implications of Finland's plan to ban coal and cutting oil use. Energy Policy, 2017, 108, 78-80. | 4.2 | 13 |
| 249 | Novel LaFe2O4 spinel structure with a large oxygen reduction response towards protonic ceramic fuel cell cathode. Journal of Rare Earths, 2023, 41, 413-421. | 2.5 | 13 |
| 250 | Synergistic effect of sodium content for tuning Sm2O3 as a stable electrolyte in proton ceramic fuel cells. Renewable Energy, 2022, 193, 608-616. | 4.3 | 13 |
| 251 | High-pressure AB2 metal hydrides with low hysteresis. Journal of Materials Science, 2000, 35, 127-131. | 1.7 | 12 |
| 252 | Absorption and desorption of water in glass/ethylene-vinyl-acetate/glass laminates. Polymer Testing, 2006, 25, 615-622. | 2.3 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 253 | Comparison of Plastic Based Counter Electrodes for Dye Sensitized Solar Cells. Journal of the Electrochemical Society, 2012, 159, H656-H661. | 1.3 | 12 |
| 254 | Integration design of membrane electrode assemblies in low temperature solid oxide fuel cell. International Journal of Hydrogen Energy, 2012, 37, 19365-19370. | 3.8 | 11 |
| 255 | Extreme sensitivity of dye solar cells to UVâ€induced degradation. Energy Science and Engineering, 2021, 9, 19-26. | 1.9 | 11 |
| 256 | How to Assess Policy Impact in National Energy and Climate Plans. Environmental and Climate Technologies, 2021, 25, 405-421. | 0.5 | 11 |
| 257 | Exergo-environmental cost optimization of a combined cooling, heating and power system using the emergy concept and equivalent emissions as ecological boundary. Energy, 2021, 233, 121124. | 4.5 | 11 |
| 258 | Intriguing Photochemistry of the Additives in the Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2016, 120, 27768-27781. | 1.5 | 10 |
| 259 | Comparative study of modelling the thermal efficiency of a novel straight through evacuated tube collector with MLR, SVR, BP and RBF methods. Sustainable Energy Technologies and Assessments, 2021, 44, 101029. | 1.7 | 10 |
| 260 | Theoretical study on melting of phase change material by natural convection. Case Studies in Thermal Engineering, 2021, 28, 101620. | 2.8 | 10 |
| 261 | Exergo-environmental cost optimization of a solar-based cooling and heating system considering equivalent emissions of life-cycle chain. Energy Conversion and Management, 2022, 258, 115534. | 4.4 | 10 |
| 262 | Energy, environmental-based cost, and solar share comparisons of a solar driven cooling and heating system with different types of building. Applied Thermal Engineering, 2022, 211, 118435. | 3.0 | 10 |
| 263 | Optimization of a weather-based energy system for high cooling and low heating conditions using different types of water-cooled chiller. Energy, 2022, 252, 124094. | 4.5 | 10 |
| 264 | Optimization of a community solar heating system with a heat pump and seasonal storage. Solar Energy, 1984, 33, 353-361. | 2.9 | 9 |
| 265 | Computational simulation of district solar heating systems with seasonal thermal energy storage. Solar Energy, 1986, 36, 397-408. | 2.9 | 9 |
| 266 | Insights into corrosion in dye solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 1045-1056. | 4.4 | 9 |
| 267 | Quasi-solid electrolyte with polyamidoamine dendron modified-talc applied to dye-sensitized solar cells. Journal of Power Sources, 2016, 325, 161-170. | 4.0 | 9 |
| 268 | Investigation of LiNiCuZn-oxide electrodes prepared by different methods: Synthesis, characterization and properties for ceramic carbonate composite fuel cells. International Journal of Hydrogen Energy, 2016, 41, 7609-7613. | 3.8 | 9 |
| 269 | An evaluation of dynamic electricity pricing for solar micro-grids in rural India. Energy Strategy Reviews, 2018, 21, 130-136. | 3.3 | 9 |
| 270 | Investigation of factors affecting the performance of a single-layer nanocomposite fuel cell. Catalysis Today, 2021, 364, 104-110. | 2.2 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 271 | Advanced LT-SOFC Based on Reconstruction of the Energy Band Structure of the LiNi<sub>0.8</sub>Co<sub>0.15</sub>Al<sub>0.05</sub>O<sub>2</sub>â€“Sm<sub>0.2</sub>Ce<sub>0.8</sub>O<sub>2-Î´</sub> Heterostructure for Fast Ionic Transport. ACS Applied Energy Materials, 2021, 4, 8922-8932. | 5.5 | 9 |
| 272 | Comparative analysis of ceramic-carbonate nanocomposite fuel cells using composite GDC/NLC electrolyte with different perovskite structured cathode materials. Frontiers of Chemical Science and Engineering, 2018, 12, 162-173. | 2.3 | 9 |
| 273 | Effect of storage thermal behavior in seasonal storage solar heating systems. Solar Energy, 1988, 40, 249-258. | 2.9 | 8 |
| 274 | Release the power of the public purse. Energy Policy, 2006, 34, 238-250. | 4.2 | 8 |
| 275 | Basic parametric study of a proton exchange membrane fuel cell. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2006, 220, 847-853. | 0.8 | 8 |
| 276 | Alternative ways for voltage control in smart grids with distributed electricity generation. International Journal of Energy Research, 2012, 36, 1032-1043. | 2.2 | 8 |
| 277 | Nanostructured materials for energy applications. Microelectronic Engineering, 2013, 108, 84-85. | 1.1 | 8 |
| 278 | Low Cost Ferritic Stainless Steel in Dye Sensitized Solar Cells with Cobalt Complex Electrolyte. Journal of the Electrochemical Society, 2014, 161, H138-H143. | 1.3 | 8 |
| 279 | Alternative view on niche development: situated learning on policy communities, power and agency. Technology Analysis and Strategic Management, 2016, 28, 114-130. | 2.0 | 8 |
| 280 | Gel Electrolytes with Polyamidopyridine Dendron Modified Talc for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 20454-20466. | 4.0 | 8 |
| 281 | Power availability and reliability of solar pico-grids in rural areas: A case study from northern India. Sustainable Energy Technologies and Assessments, 2018, 29, 147-154. | 1.7 | 8 |
| 282 | Adhesion of Single-Walled Carbon Nanotube Thin Films with Different Materials. Journal of Physical Chemistry Letters, 2020, 11, 504-509. | 2.1 | 8 |
| 283 | Linking socio-economic aspects to power system disruption models. Energy, 2021, 222, 119928. | 4.5 | 8 |
| 284 | Optical, thermal and thermo-mechanical model for a larger-aperture parabolic trough concentrator system consisting of a novel flat secondary reflector and an improved absorber tube. Solar Energy, 2022, 240, 376-387. | 2.9 | 8 |
| 285 | Degradation of unglazed rough graphite-aluminium solar absorber surfaces in simulated acid and neutral rain. Solar Energy, 2005, 78, 41-48. | 2.9 | 7 |
| 286 | Estimating thermal stress in BIPV modules. International Journal of Energy Research, 2006, 30, 1264-1277. | 2.2 | 7 |
| 287 | Degradation and stability of nanostructured energy devices. Microelectronic Engineering, 2014, 126, 49-53. | 1.1 | 7 |
| 288 | Stabilizing Dendron-Modified Talc-Based Electrolyte for Quasi-Solid Dye-Sensitized Solar Cell. Electrochimica Acta, 2017, 228, 413-421. | 2.6 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 289 | Characteristics of natural convection in n-eicosane in a square cavity with discrete heat source. Case Studies in Thermal Engineering, 2021, 27, 101245. | 2.8 | 7 |
| 290 | Nanocrystalline Surface Layer of WO3 for Enhanced Proton Transport during Fuel Cell Operation. Crystals, 2021, 11, 1595. | 1.0 | 7 |
| 291 | Comparison of analytical and numerical modeling approaches for sizing of seasonal storage solar heating systems. Solar Energy, 1992, 48, 267-273. | 2.9 | 6 |
| 292 | Pressure DSC studies on the formation and reproducibility of double peaks in the sorption of LaNi5-H2 during thermal cycling. Thermochimica Acta, 1997, 298, 141-147. | 1.2 | 6 |
| 293 | Analysis of energy technology changes and associated costs. International Journal of Energy Research, 2006, 30, 967-984. | 2.2 | 6 |
| 294 | Energy relevance of microgeneration-Case advanced fuel cells. International Journal of Energy Research, 2011, 35, 1100-1106. | 2.2 | 6 |
| 295 | The European Union challenge: integration of energy, climate, and economic policy. Wiley Interdisciplinary Reviews: Energy and Environment, 2012, 1, 60-68. | 1.9 | 6 |
| 296 | Energy system impact of wind power with curtailment: national- and city-scale analysis. International Journal of Low-Carbon Technologies, 2019, 14, 277-285. | 1.2 | 6 |
| 297 | Modelling city-scale transient district heat demand by combining physical and data-driven approach. Applied Thermal Engineering, 2020, 178, 115590. | 3.0 | 6 |
| 298 | Improving the Economics of Battery Storage. Joule, 2020, 4, 2543-2545. | 11.7 | 6 |
| 299 | Effect of Heat Demand on Integration of Urban Large-Scale Renewable Schemesâ€"Case of Helsinki City (60 Â°N). Energies, 2020, 13, 2164. | 1.6 | 6 |
| 300 | Electrochemical impact of the carbonate in ceria-carbonate composite for low temperature solid oxide fuel cell. International Journal of Hydrogen Energy, 2021, 46, 9898-9904. | 3.8 | 6 |
| 301 | Improving stability and heat transfer through a beam in a semi-circular absorber tube of a large-aperture trough solar concentrator. Energy, 2021, 228, 120614. | 4.5 | 6 |
| 302 | Highly active titanium oxide photocathode for photoelectrochemical water reduction in alkaline solution. Journal of Power Sources, 2022, 524, 231095. | 4.0 | 6 |
| 303 | Reduced TiO2 nanotube array as an excellent cathode for hydrogen evolution reaction in alkaline solution. Catalysis Today, 2022, 402, 3-9. | 2.2 | 6 |
| 304 | Optimization of operating strategies in a community solar heating system. Applied Mathematical Modelling, 1985, 9, 117-124. | 2.2 | 5 |
| 305 | Economic analysis of heat storage in energy systems. International Journal of Energy Research, 1987, 11, 85-94. | 2.2 | 5 |
| 306 | Importance of integrated strategies and innovations for commercial breakthrough of fuel cells. International Journal of Hydrogen Energy, 2010, 35, 2602-2605. | 3.8 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 307 | Advanced fuel cells: from materials and technologies to applications. International Journal of Energy Research, 2011, 35, 1023-1024. | 2.2 | 5 |
| 308 | An analytical model of hydrogen evolution and oxidation reactions on electrodes partially covered with a catalyst. Physical Chemistry Chemical Physics, 2016, 18, 13616-13628. | 1.3 | 5 |
| 309 | Two-phase model of hydrogen transport to optimize nanoparticle catalyst loading for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2016, 41, 7568-7581. | 3.8 | 5 |
| 310 | Clean energy transitionâ€"our urgent challenge: an editorial assay. Wiley Interdisciplinary Reviews: Energy and Environment, 2017, 6, e243. | 1.9 | 5 |
| 311 | The state of external circuit affects the stability of dye-sensitized solar cells. Electrochimica Acta, 2018, 275, 59-66. | 2.6 | 5 |
| 312 | Modelling and performance evaluation of an integrated receiver-storage for concentrating solar power beam-down system under heterogeneous radiative conditions. Solar Energy, 2019, 188, 1264-1273. | 2.9 | 5 |
| 313 | Importance of Energy Efficiency in Manufacturing Industries for Climate and Competitiveness. Environmental and Climate Technologies, 2021, 25, 306-317. | 0.5 | 5 |
| 314 | Could Europe become the first climate-neutral continent?. Nature, 2021, 596, 486-486. | 13.7 | 5 |
| 315 | Optimizing research on large-aperture parabolic trough condenser using two kinds of absorber tubes with reflector at 500ÂÂ°C. Renewable Energy, 2021, 179, 2187-2197. | 4.3 | 5 |
| 316 | The policy operations room: Analyzing path-dependent decision-making in wicked socio-ecological disruptions. Safety Science, 2022, 146, 105567. | 2.6 | 5 |
| 317 | Determination of reactor neutron spectra with multicomponent activation detectors. Journal of Radioanalytical Chemistry, 1983, 76, 151-170. | 0.5 | 4 |
| 318 | Net energy analysis of district solar heating with seasonal heat storage. Energy, 1983, 8, 813-819. | 4.5 | 4 |
| 319 | Data filtering methods for determining performance parameters in photovoltaic module field tests. Progress in Photovoltaics: Research and Applications, 2006, 14, 329-340. | 4.4 | 4 |
| 320 | Energy and environment is defined by its crossâ€disciplinary basis: an editorial essay. Wiley Interdisciplinary Reviews: Energy and Environment, 2014, 3, 1-2. | 1.9 | 4 |
| 321 | Water and Energy â€“ Interconnections and Conflicts. Global Challenges, 2017, 1, 1700056. | 1.8 | 4 |
| 322 | New developments in fuel cells: From traditional to innovative concepts (Preface for China-Europe) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 12595. | 3.8 | 4 |
| 323 | Influence of titanium dioxide surface activation on the performance of mesoscopic perovskite solar cells. Thin Solid Films, 2019, 686, 137418. | 0.8 | 4 |
| 324 | Thermodynamic Analysis of a Conceptual Fixed-Bed Solar Thermochemical Cavity Receiverâ€"Reactor Array for Water Splitting Via Ceria Redox Cycling. Frontiers in Energy Research, 2021, 9, . | 1.2 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 325 | Optimizing the shape of PCM container to enhance the melting process. , 2022, 1, . | | 4 |
| 326 | Dynamic effects in a salinity-gradient solar-pond heating system. Applied Energy, 1985, 20, 189-205. | 5.1 | 3 |
| 327 | Verification of a CSHPSS simulation program with emphasis on system control. Solar Energy, 1987, 39, 513-519. | 2.9 | 3 |
| 328 | Effect of climate on major CSHPSS design parameters. Solar Energy, 1989, 42, 487-494. | 2.9 | 3 |
| 329 | The energy storage problem in low energy buildings. Solar Energy, 1994, 52, 67-74. | 2.9 | 3 |
| 330 | Nanoscience and technology for energy applications. International Journal of Energy Research, 2009, 33, 1099-1100. | 2.2 | 3 |
| 331 | Energy strategies to confront climate change. Wiley Interdisciplinary Reviews: Energy and Environment, 2012, 1, 1-2. | 1.9 | 3 |
| 332 | Little time left to reverse emissionsâ€"Growing hope despite disappointing CO<sub>2</sub> trend. Wiley Interdisciplinary Reviews: Energy and Environment, 2020, 9, e369. | 1.9 | 3 |
| 333 | Thermo-ecological cost optimization of a solar thermal and photovoltaic integrated energy system considering energy level. Sustainable Production and Consumption, 2022, 33, 298-311. | 5.7 | 3 |
| 334 | On the effects of solar radiation variations on solar heating system performances. International Journal of Energy Research, 1985, 9, 53-64. | 2.2 | 2 |
| 335 | Towards corrosion testing of unglazed solar absorber surfaces in simulated acid rain. Solar Energy Materials and Solar Cells, 2005, 89, 185-195. | 3.0 | 2 |
| 336 | Analysis of advanced energy chain typologies. International Journal of Energy Research, 2008, 32, 144-153. | 2.2 | 2 |
| 337 | The Performance Enhanced by Back Reflection in Nanostructured Dye-Sensitized Solar Cells. , 2008, , 1055-1058. | | 2 |
| 338 | Energy, climate, and our historic opportunity: an editorial essay. Wiley Interdisciplinary Reviews: Energy and Environment, 2016, 5, 5-6. | 1.9 | 2 |
| 339 | Global Challenges - an innovative journal for tackling humanity's major challenges. Global Challenges, 2017, 1, 3-4. | 1.8 | 2 |
| 340 | Microscopic techniques for analysis of ceramic fuel cells. Wiley Interdisciplinary Reviews: Energy and Environment, 2018, 7, e299. | 1.9 | 2 |
| 341 | Sustaining our common future: Transformative, timely, commonsâ€based change is needed. Wiley Interdisciplinary Reviews: Energy and Environment, 2019, 8, e334. | 1.9 | 2 |
| 342 | Optical Design of a Novel Two-Stage Dish Applied to Thermochemical Water/CO2 Splitting with the Concept of Rotary Secondary Mirror. Energies, 2020, 13, 3553. | 1.6 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 343 | Carbonate dual-phase improves the performance of single-layer fuel cell made from mixed ionic and semiconductor composite. BMC Energy, 2020, 2, . | 6.3 | 2 |
| 344 | Hybrid heterojunction solar cells based on singleâ€walled carbon nanotubes and amorphous silicon thin films. Wiley Interdisciplinary Reviews: Energy and Environment, 2022, 11, e402. | 1.9 | 2 |
| 345 | From identification of electrolyte degradation rates to lifetime estimations in dye solar cells with iodine and cobalt redox couples. , 0, , . | | 2 |
| 346 | Systematic Analysis on the Effect of Sintering Temperature for Optimized Performance of Li0.15Ni0.45Zn0.4O2-Gd0.2Ce0.8O2-Li2CO3-Na2CO3-K2CO3 Based 3D Printed Single-Layer Ceramic Fuel Cell. Nanomaterials, 2021, 11, 2180. | 1.9 | 2 |
| 347 | Predictive Modeling of Dye Solar Cell Degradation. Solar Rrl, 2022, 6, . | 3.1 | 2 |
| 348 | Nano energy technologies. International Journal of Energy Research, 2014, 38, 415-417. | 2.2 | 1 |
| 349 | Bridging new and old energy. International Journal of Energy Research, 2017, 41, 3-5. | 2.2 | 1 |
| 350 | Shifting to clean energyâ€”An editorial essay. Wiley Interdisciplinary Reviews: Energy and Environment, 2018, 7, e283. | 1.9 | 1 |
| 351 | Data for global power demand and solar PV output matching. Data in Brief, 2018, 19, 1694-1715. | 0.5 | 1 |
| 352 | Rapid climate transformation requires transformative policy and science thinkingâ€”An editorial essay. Wiley Interdisciplinary Reviews: Energy and Environment, 2022, 11, . | 1.9 | 1 |
| 353 | Coupling the PV array with a standard uninterruptible power supply (UPS) system in commercial buildings. Progress in Photovoltaics: Research and Applications, 1996, 4, 315-320. | 4.4 | 0 |
| 354 | Physical interpretation of impacts from a low-cost manufacturing process on the surface microstructure of a novel solar absorber. Solar Energy Materials and Solar Cells, 2004, 84, 171-181. | 3.0 | 0 |
| 355 | Call for Papers: Nanoscience and Technology for Energy Applications. International Journal of Energy Research, 2009, 33, 221-221. | 2.2 | 0 |
| 356 | Special IJHE issue from HyForum 2008 conference. International Journal of Hydrogen Energy, 2010, 35, 2579-2579. | 3.8 | 0 |
| 357 | Global Challenges: Energy. Global Challenges, 2017, 1, 7-8. | 1.8 | 0 |
| 358 | Better linkage of smart materials to energy scale. International Journal of Energy Research, 2017, 41, 1369-1371. | 2.2 | 0 |
| 359 | Sustainable urban infrastructure in China. Wiley Interdisciplinary Reviews: Energy and Environment, 2021, 10, e411. | 1.9 | 0 |
| 360 | Systematic Analysis on the Effect of Sintering Temperature for Optimized Performance of LiNiZnO-GdCeO-LiCO-NaCO-KCO Based 3D Printed Single-Layer Ceramic Fuel Cell. Nanomaterials, 2021, 11, . | 1.9 | 0 |