

Theme 6-2: Renewable Energy and Power Systems - 2022

Title	Authors	Scopus Source title	Volume	Issue	Pages	Publication type
Integrated microbial desalination cell and microbial electrolysis cell for wastewater treatment, bioelectricity generation, and biofuel production: Success, experience, challenges, and future prospects	Al-Murisi, M. Al-Mugbel, D. Al-Othman, A. Tawalbeh, M.	Integrated Environmental Technologies for Wastewater Treatment and Sustainable Development	-	-	145-166	Chapter
The novel advancements of nanomaterials in biofuel cells with a focus on electrodes' applications	Tawalbeh, M. Muhammad Nauman Javed, R. Al-Othman, A. Almomani, F.	Fuel	322	-	-	Article
A hybrid photovoltaic/solar chimney seawater desalination plant	Tawalbeh, M. Shafie, S.M. Alshehhi, S.F. Alnaqbi, A.A. Al-Othman, A.	2022 Advances in Science and Engineering Technology International Conferences, ASET 2022	-	-	-	Conference Paper
Adaptive estimation of PEMFC stack model parameters - An experimental verification	Taleb, A. Mukhopadhyay, S. Al-Othman, A.	International Journal of Hydrogen Energy	47	98	41663-41682	Article
Ammonia: A versatile candidate for the use in energy storage systems	Tawalbeh, M. Murtaza, S.Z.M. Al-Othman, A. Alami, A.H. Singh, K. Olabi, A.G.	Renewable Energy	194	-	955-977	Review
Artificial intelligence and numerical models in hybrid renewable energy systems with fuel cells: Advances and prospects	Al-Othman, A. Tawalbeh, M. Martis, R. Dhou, S. Orhan, M. Qasim, M. Ghani Olabi, A.	Energy Conversion and Management	253	-	-	Review
Corrigendum to "Recent developments in pressure retarded osmosis for desalination and power generation" [Renew Sustain Energy Rev 138 (2021) 110492](S1364032120307784)[10.1016/j.rser.2020.110492]	Tawalbeh, M. Al-Othman, A. Abdelwahab, N. Alami, A.H. Olabi, A.G.	Renewable and Sustainable Energy Reviews	160	-	-	Erratum
Highly proton conductive membranes based on lignin/ZrP/PTFE composite for high temperature PEM fuel cells	Tawalbeh, M. Al-Othman, A. Ka'ki, A. Farooq, A. Alkasrawi, M.	2022 Advances in Science and Engineering Technology International Conferences, ASET 2022	-	-	-	Conference Paper
Recent developments in graphene and graphene oxide materials for polymer electrolyte membrane fuel cells applications	Nauman Javed, R.M. Al-Othman, A. Tawalbeh, M. Olabi, A.G.	Renewable and Sustainable Energy Reviews	168	-	-	Review
High energy storage quasi-solid-state supercapacitor enabled by metal chalcogenide nanowires and iron-based nitrogen-doped graphene nanostructures	Bahaa, A. Abdelkareem, M.A. Al Naqbi, H. Yousef Mohamed, A. Shinde, P.A. Yousef, B.A.A. Sayed, E.T. Alawadhi, H. Chae, K.-J. Al-Asheh, S. Olabi, A.G.	Journal of Colloid and Interface Science	608	-	711-719	Article
Current progression in graphene-based membranes for low temperature fuel cells	Alnaqbi, H. Sayed, E.T. Al-Asheh, S. Bahaa, A. Alawadhi, H. Abdelkareem, M.A.	International Journal of Hydrogen Energy	-	-	-	Article
Structural engineering and surface modification of nickel double hydroxide nanosheets for all-solid-state asymmetric supercapacitors	Bahaa, A. Abdelkareem, M.A. Al Naqbi, H. Mohamed, A.Y. Yousef, B.A.A. Sayed, E.T. Chae, K.-J. Al-Asheh, S. Olabi, A.G.	Journal of Energy Storage	45	-	-	Article
Recent Progress in Metal-Organic Framework-Derived Chalcogenides (MX ₂ , X = S, Se) as Electrode Materials for Supercapacitors and Catalysts in Fuel Cells	Alnaqbi, H. El-Kadri, O. Abdelkareem, M.A. Al-Asheh, S.	Energies	15	21	-	Review
Technoeconomic assessment of a concentrated solar tower-gas turbine cogeneration system	Hamouda, M.A. Shaaban, M.F. Sharaf Eldean, M.A. Fath, H.E.S. Al Bardan, M.	Applied Thermal Engineering	212	-	-	Article
Optimal day-ahead scheduling in micro-grid with renewable based DGs and smart charging station of EVs using an enhanced mantaray foraging optimisation	Bastawy, M. Ebeed, M. Ali, A. Shaaban, M.F. Khan, B. Kamel, S.	IET Renewable Power Generation	16	11	2413-2428	Article
Battery Energy Management Techniques for an Electric Vehicle Traction System	Abdelaal, A.S. Mukhopadhyay, S. Rehman, H.	IEEE Access	10	-	84015-84037	Article
Battery Energy Consumption Optimization for the EV Traction System	Elahi, M.O. Elsaadany, M. Rehman, H. Mukhopadhyay, S.	2022 IEEE 16th International Conference on Compatibility, Power Electronics, and Power Engineering, CPE-POWERENG 2022	-	-	-	Conference Paper
A New ANN-Based Cleaning Approach for Photovoltaic Solar Panels	Mokhtar, M. Shaaban, M.F.	2022 9th International Conference on Electrical and Electronics Engineering, ICEEE 2022	-	-	260-263	Conference Paper
Adaptive estimation of PEMFC stack model parameters - An experimental verification	Taleb, A. Mukhopadhyay, S. Al-Othman, A.	International Journal of Hydrogen Energy	47	98	41663-41682	Article
Artificial intelligence and numerical models in hybrid renewable energy systems with fuel cells: Advances and prospects	Al-Othman, A. Tawalbeh, M. Martis, R. Dhou, S. Orhan, M. Qasim, M. Ghani Olabi, A.	Energy Conversion and Management	253	-	-	Review
An overview of proton exchange membranes for fuel cells: Materials and manufacturing	Ahmad, S. Nawaz, T. Ali, A. Orhan, M.F. Samreen, A. Kannan, A.M.	International Journal of Hydrogen Energy	47	44	19086-19131	Review
Assessment of the Impact of the Human Coronavirus (COVID-19) Lockdown on the Energy Sector: A Case Study of Sharjah, UAE	Samara, F. Abu-Nabah, B.A. El-Damaty, W. Al Bardan, M.	Energies	15	4	-	Article
Design and Optimization of Fuel Cells: A Case Study on Polymer Electrolyte Membrane Fuel Cell Power Systems for Portable Applications	Orhan, M.F. Saka, K. Yousef, M.	Advances in Polymer Technology	2022	-	-	Article
Performance analysis of a molten carbonate fuel cell	Atwany, H. Al-Abdullah, A. Orhan, M.F.	Energy Systems	-	-	-	Article
Analysis of stack operating conditions for a polymer electrolyte membrane fuel cell	Saka, K. Orhan, M.F.	Energy	258	-	-	Article