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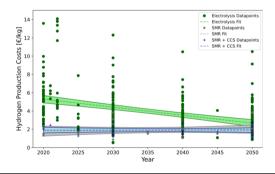
Cover See Sabrina Spatari et al., pp. 1924–1935. Image reproduced by permission of Sabrina Spatari from Sustainable Energy Fuels, 2024, **8**, 1924.

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Future costs of hydrogen: a quantitative review

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Lignocellulosic biomass-based materials: a promising resource for viable energy storage

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Fundamental questions
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REVIEWS

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Design and development of nanostructured photocatalysts for large-scale solar green hydrogen generation

Pratyush Kumar Sahu, Aslisha Champati, Abanti Pradhan* and Brundabana Naik*

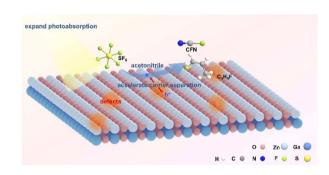


COMMUNICATION

1918

Boosted photoconversion of SF₆ over defective ZnGa₂O₄ nanosheets under mild conditions

Shan Zhu, Yue Zhao, Fengxiang Ma, Yue Yin, Weijia Shi, Feng Zhu, Wenya Fan, Peijin Du* and Jinyu Ding*



PAPERS

1924

A sustainable aviation fuel pathway from biomass: life cycle environmental and cost evaluation for dimethylcyclooctane jet fuel

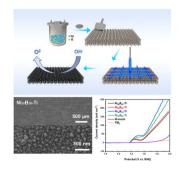
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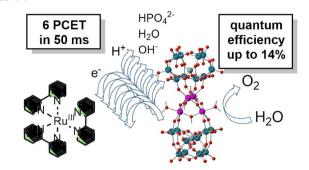
1936

A facile strategy of "laser-direct-writing" to develop self-supported Ni₃₀B₇₀-Ti catalysts for boosted and durable alkaline oxygen evolution

Yiming Gao, Shengli Zhu, Zhenduo Cui, Zhaoyang Li, Shuilin Wu, Zhonghui Gao, Wence Xu, Meiqing Guo, Yanqin Liang* and Hui Jiang*



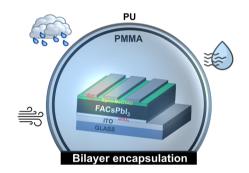
1944



Sequential proton coupled electron transfer events from a tetraruthenium polyoxometalate in photochemical water oxidation

Elena Rossin, Marcella Bonchio, Mirco Natali* and Andrea Sartorel*

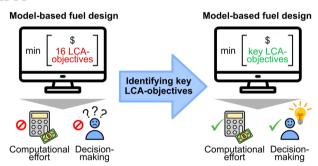
1953



Facile and scalable bilayer polymer encapsulation to achieve long-term stability of perovskite solar cells under harsh humidity conditions

Rohith Kumar Raman, Saraswathi Ganesan, Ananthan Alagumalai, Vidya Sudhakaran Menon, Suresh Krishnan, Senthil A. Gurusamy Thangavelu and Ananthanarayanan Krishnamoorthy*

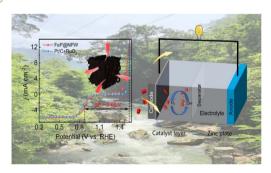
1966



Identifying key environmental objectives for integrated process and fuel design

Simon Voelker, Philipp Ackermann, Marcel Granderath, Clemens Kortmann, Joern Viell, Alexander Mitsos and Niklas von der Assen*

1983



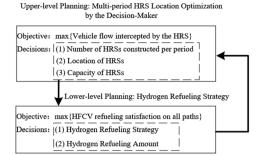
Chemical fabrication and synergistic mechanism of N-doped carbon modified with FeP as catalysts for flexible rechargeable Zn-air batteries

Xianli Wu, Ting Zhou, Guosheng Han, Shuling Liu, Mengmeng Cao, Shuqi Li, Jiawen Wang, Yanyan Liu,* Jianchun Jiang, Yongfeng Wang and Baojun Li

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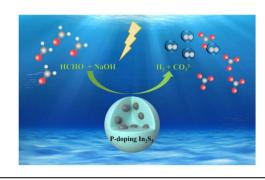
Multi-period optimization of hydrogen refueling station layouts considering refueling satisfaction and hydrogen fuel cell vehicle market diffusion

Yan Zhou, Xunpeng Qin* and Wenlong Yang



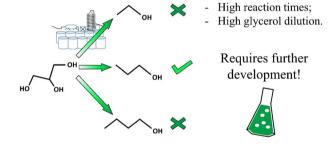
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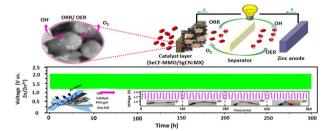
Biochemical production of short-chain alcohols from glycerol: process simulation and economic evaluation

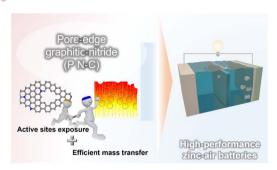
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Selenium-doped mixed metal oxide nanoparticles decorated on g-C₃N₄ and MXene sheets as promising bifunctional oxygen electrocatalysts for rechargeable Zn-air batteries

Mohadese Rastgoo-Deylami, Ali Esfandiar* and Valeri P. Tolstoy

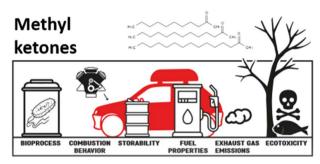




Pore-edge graphitic nitride-dominant hierarchically porous carbons for boosting oxygen reduction catalysis

Lilai Liu, Youzheng Wu, Hui Wang, Xueying Yang, Weirun Zhu, Shuanshuan Ma, Xiangyu Lu, Yaqiang Li, Penghui Ren,* Peixia Yang* and Ruopeng Li*

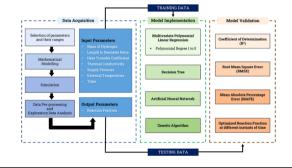
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Methyl ketones: a comprehensive study of a novel biofuel

Carolin Grütering, Christian Honecker, Marius Hofmeister, Marcel Neumann, Lukas Raßpe-Lange, Miaomiao Du, Bastian Lehrheuer, Maximilian von Campenhausen, Franziska Schuster, Maximilian Surger, Birgitta E. Ebert, Andreas Jupke, Till Tiso, Kai Leonhard, Katharina Schmitz, Stefan Pischinger and Lars M. Blank*

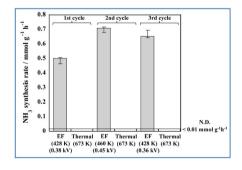
2073



Machine learning modelling and optimization for metal hydride hydrogen storage systems

Abhijit Kumar, Saurabh Tiwari,* Nandlal Gupta and Pratibha Sharma

2087



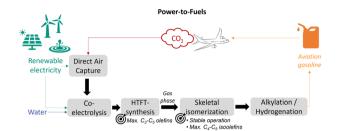
Air-stable iron phosphide catalysts for electric fieldassisted low-temperature ammonia synthesis

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Dorela Dhamo,* Jannis Kühn, Simon Lüttin, Michael Rubin and Roland Dittmeyer



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Influence of Ru-substitution on the performance of pyrochlore catalysts in oxidative steam reforming of ethanol

Yu-Hsuan Huang, Ho-Chen Hsieh, Yun-Hsin Wang, Sheng-Feng Weng and Chi-Shen Lee*

