

Sustainable Energy & Fuels

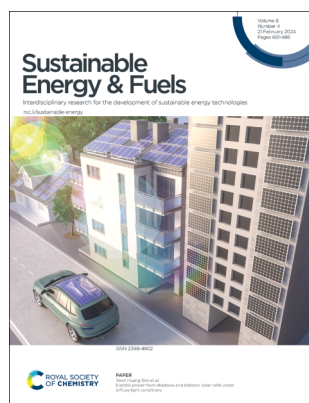
Interdisciplinary research for the development of sustainable energy technologies

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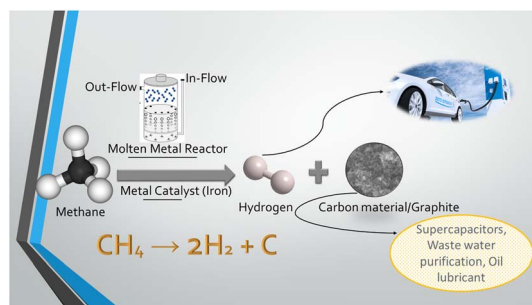
Inside cover
See Yuepeng Guan, Baoning Zhu, Yaqin Huang *et al.*, pp. 717–728. Image reproduced by permission of Yuepeng Guan, Baoning Zhu and Yaqin Huang from *Sustainable Energy Fuels*, 2024, 8, 717.

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Methane conversion for hydrogen production: technologies for a sustainable future

Safia Hameed and Elisabetta Comini*

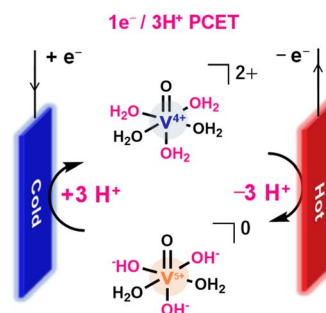


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An aqueous vanadium complex for the superior electrolyte of a thermo-electrochemical cell

Tepei Yamada,* Takashi Kobayashi, Yusuke Wakayama, Fumitoshi Matoba, Koichi Yatsuzuka, Nobuo Kimizuka and Hongyao Zhou



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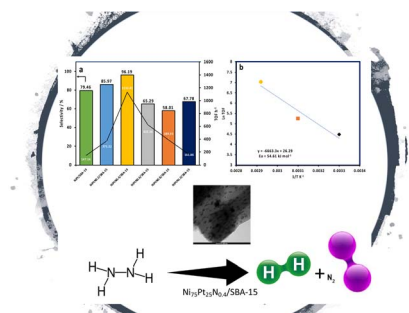
Fundamental questions
Elemental answers

COMMUNICATIONS

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Synthesis of an SBA-15 supported NiPtN catalyst for dehydrogenation of hydrazine hydrate

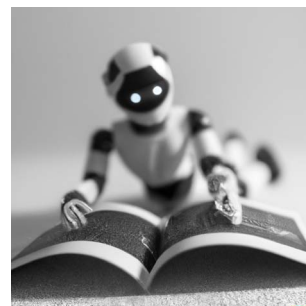
Muhammad Ridwan,* Risda Maulida Afifah, Indri Yati and Rika Tri Yunarti



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ChatGPT integration in perovskite research: unveiling pros and cons of AI integration for scientific advancements

Luigi Angelo Castriotta*

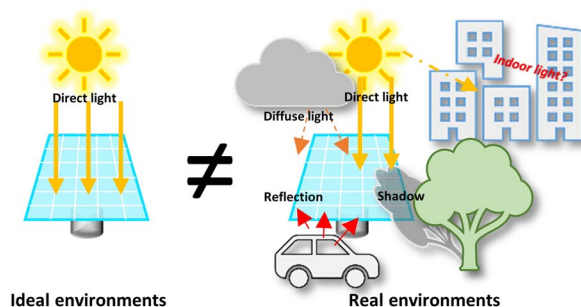


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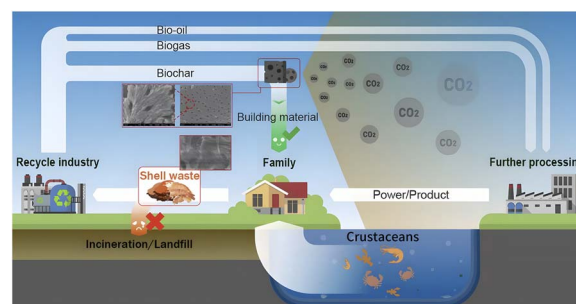
Yeon Hyang Sim, Min Ju Yun, Luthfan Fauzan, Hyekyoung Choi, Dong Yoon Lee and Seung I. Cha*



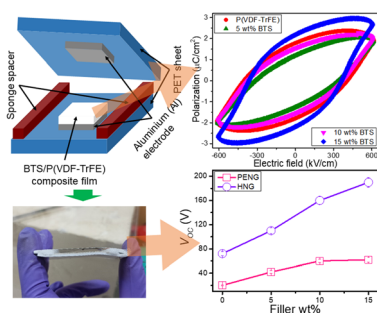
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Management of waste crustacean shells for the construction of a carbon-negative circulation model

Xiaogang Sun, Zhen Du, Yimeng Wang, Yuepeng Guan,* Baoning Zhu* and Yaqin Huang*



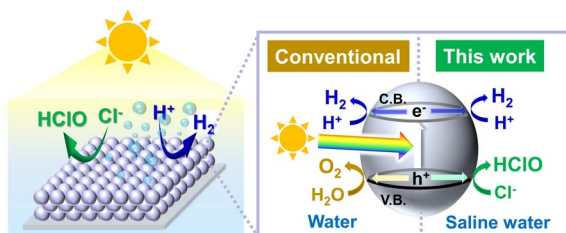
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Morphotropic phase boundary-based $\text{BaTi}_{0.89}\text{Sn}_{0.11}\text{O}_3$ filler induced polarization tuned P(VDF-TrFE) composites as efficient piezo-tribo hybrid nanogenerators

Payel Maiti,* Abhishek Sasmal, A. Arockiarajan and Rahul Mitra

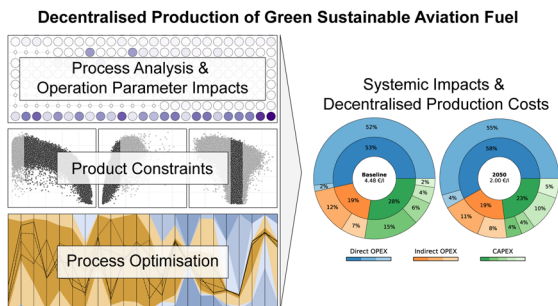
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Solar-driven simultaneous production of hypochlorous acid and hydrogen from saline water over RhCrO_x -loaded SrTiO_3 photocatalyst systems

Sayuri Okunaka,* Toshio Nakamura, Takeshi Ikeda, Kohei Tsuruda and Hiromasa Tokudome*

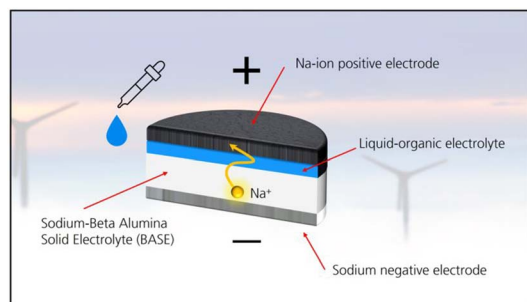
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Decentralised production of e-fuels for aviation: implications and trade-offs of a targeted small-scale production of sustainable aviation fuel based on Fischer–Tropsch synthesis

Andreas Meurer,* Patrick Jochem and Jürgen Kern

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Modulating the cathode interface in sodium-beta alumina-based semi-solid-state sodium cells using liquid-organic electrolytes

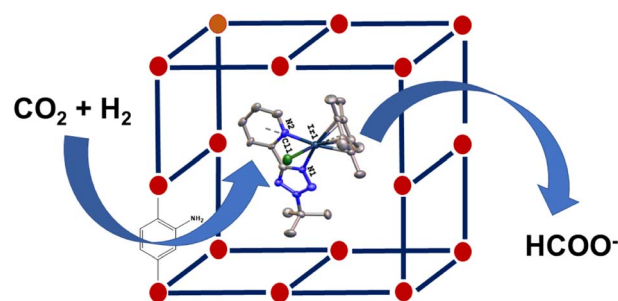
Micha P. Fertig,* Christof Neumann, Matthias Schulz, Andrey Turchanin and Michael Stelter



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A single site catalyst supported in mesoporous UiO-66 for catalytic conversion of carbon dioxide to formate

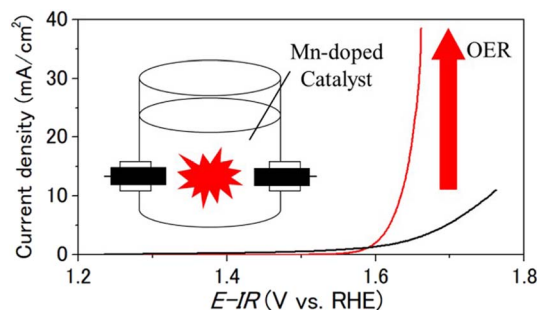
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Solution plasma assisted Mn-doping: a novel strategy for developing highly durable and active oxygen evolution catalysts

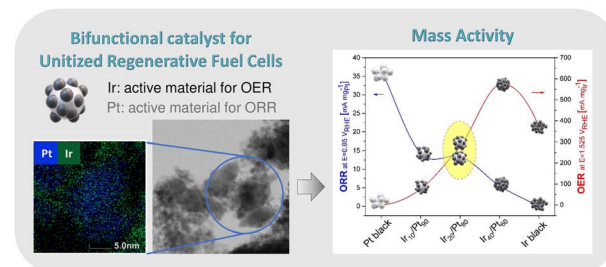
Hao He, Takeshi Matsuda, Akira Miura, Masanori Nagao, Jeevan Kumar Padarti, Tomoya Ohno and Shigeto Hirai*



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Bifunctional Pt–Ir nanoparticle catalysts for oxygen reduction and evolution reactions: investigating the influence of surface composition on the catalytic properties

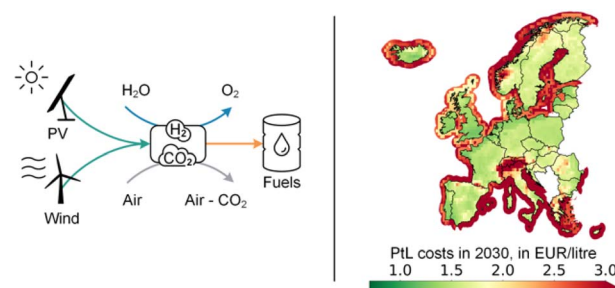
Lucinda Blanco-Redondo, Yevheniia Lobko,* Kateřina Veltruská, Jaroslava Nováková, Michal Mazur, Alina Madalina Darabut, Tomáš Hrbek, Milan Dopita, Jakub Hraníček, Yuriy Yakovlev, Iva Matolinová and Vladimír Matolín



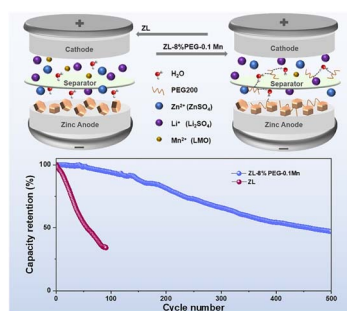
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Future costs of power-to-liquid sustainable aviation fuels produced from hybrid solar PV-wind plants in Europe

Kyle Seymour,* Maximilian Held, Boris Stolz, Gil Georges and Konstantinos Boulouchos



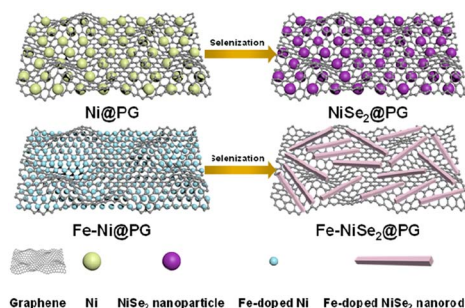
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Highly improved aqueous Zn||LiMn₂O₄ hybrid-ion batteries using poly(ethylene glycol) and manganese sulfate as electrolyte additives

Jingyi Kong, Hanling Guo, Yuan Li, Min Gong, Xiang Lin, Liang Zhang and Dongrui Wang*

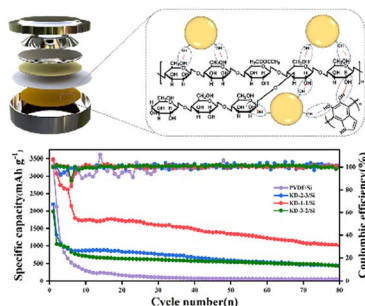
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Flexible electrode of Fe-doped NiSe₂@porous graphene as binder-free anode for lithium-ion batteries

Caiyun Guo, Bo Zhang, Mengru Xiao, Mingming Hao, Liting Zhao, Xiaoting Zhang,* Hongyan Zhang* and Rui Wang*

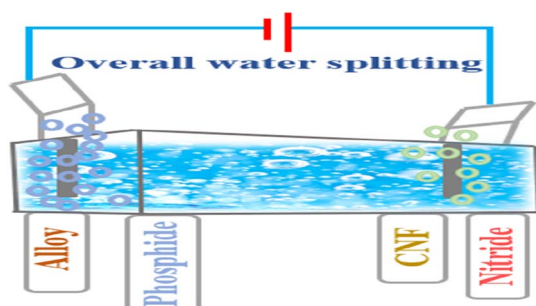
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Nanoarchitectonics of 3D-networked bio-based binders for silicon anodes in lithium-ion batteries based on dynamic hydrogen bonding

Liang Yu, Meng Chang, Miaolan Zhang, Yuting Yang, Ken Chen, Tao Jiang, Dean Shi, Qunchao Zhang* and Jou You*

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Electrospinning construction of a Fe–Ni-based multicomponent hybrid as synergistic electrocatalyst for water electrolysis

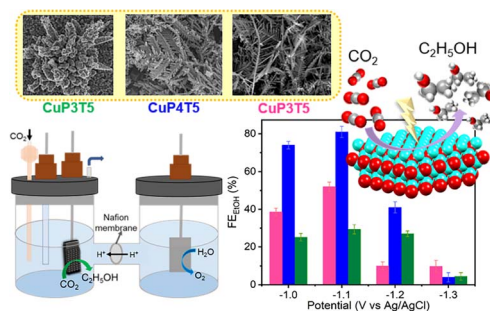
Jinping Wang, Xiaochao Ji, Lili Bo,* Liucheng Xia, Jiayao Fang, Xiaolin Guan, Haidong Yang and Jinhui Tong*



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Fractal growth of a fern-like nanostructured Cu_2O film electrode for electrochemical reduction of CO_2 to ethanol

Deep Lata Singh, Ramasamy Shanmugam, Vineet Mishra and G. Ranga Rao*



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Apisan Phienluphon, Keiko Kondo, Hiroyuki Okano, Takashi Watanabe, Takashi Nagata* and Masato Katahira*

