

Sustainable Energy & Fuels

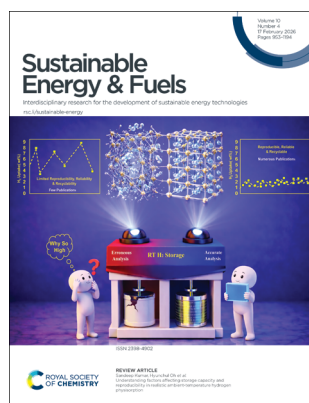
Interdisciplinary research for the development of sustainable energy technologies

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ISSN 2398-4902 CODEN SEFUA7 10(4) 953–1194 (2026)



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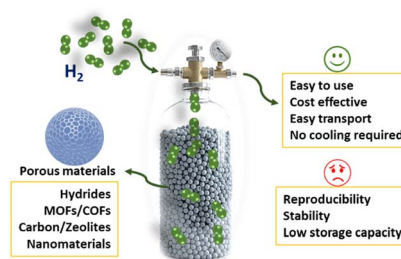
See Sandeep Kumar, Hyunchul Oh *et al.*, pp. 961–983. Image reproduced by permission of Hyunchul Oh from *Sustainable Energy Fuels*, 2026, 10, 961.

REVIEWS

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Understanding factors affecting storage capacity and reproducibility in realistic ambient-temperature hydrogen physisorption

Sandeep Kumar,* Munkhshur Myekhlai, Subin Lim and Hyunchul Oh*

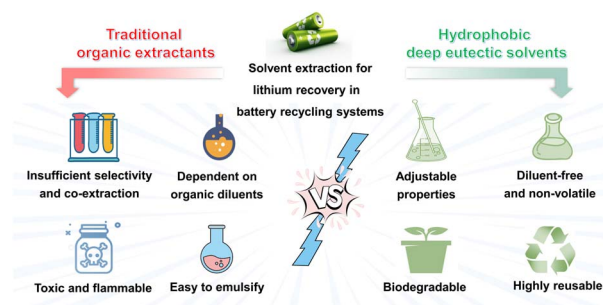


Room temperature hydrogen storage

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Hydrophobic deep eutectic solvents for sustainable lithium recovery in battery recycling systems

Aedo Matias, Xiaohui Lu, Jie Wang, Chaowu Wang and Qibo Zhang*



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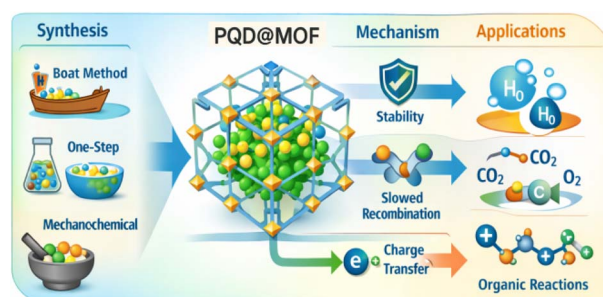


REVIEWS

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Perovskite quantum dot@MOF heterostructures: highly efficient and stable visible-light photocatalysts

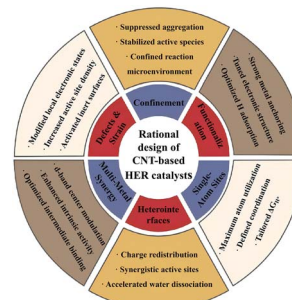
Mohamed Abu Shuheil, Ahmed Aldulaimi, Subhashree Ray, Talal Aziz Qassem, Gunjan Garg, Renu Sharma, Dilbar Urazbaeva, Sabokhat Sadikova and Sharmin Smaeilpour*



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Rational design strategies for carbon nanotube-based non-precious metal HER catalysts: a review

Xiaomei Wang*

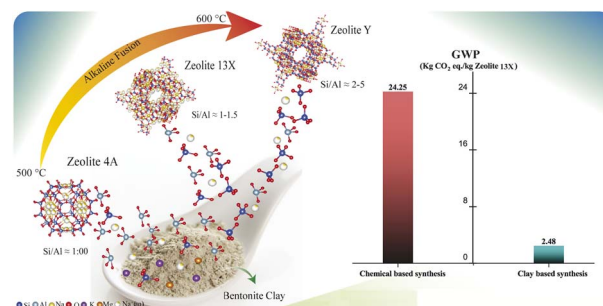


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A sustainable multi-zeolite synthetic framework from a single natural clay: CO₂/H₂O adsorption performance and life cycle assessment benefits

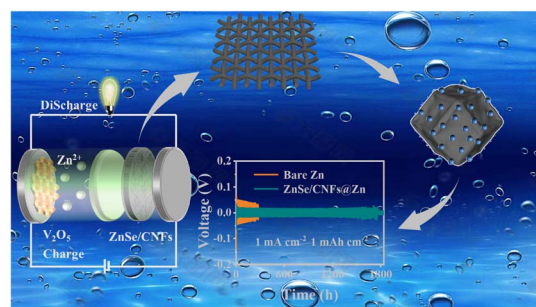
Biruktait Ayele Lemecho,* Jordi Espín, Pattaraphon Rodlamul, Florian Kiefer, Wendy Lee Queen and Vivek Subramanian*



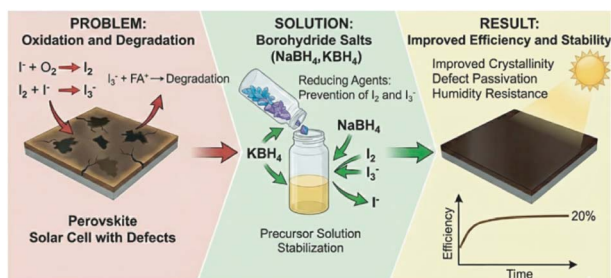
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ZnSe grown on carbon nanofibers derived from ZIF-8 as a zincophilic layer for zinc metal anodes

Yudong Feng, Zhaoli Liu, Yuying Zheng, Yuanpei Li and Xingwei Sun*



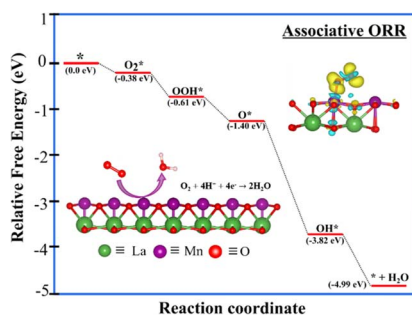
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The dual role of borohydride salts in enhancing perovskite solar cell performance and stability

Teresa Diaz-Perez, Carina Pareja-Rivera, Jorge Pascual, Hector Juarez S., Sofia Masi,* Eva M. Barea,* Silver-Hamill Turren-Cruz* and Iván Mora-Seró*

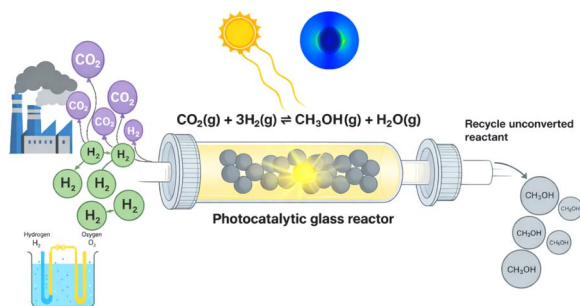
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Elucidating the O₂ reduction reaction on 2D monolayer LaMnO₃ perovskite

Naveen Sharma and Srimanta Pakhira*

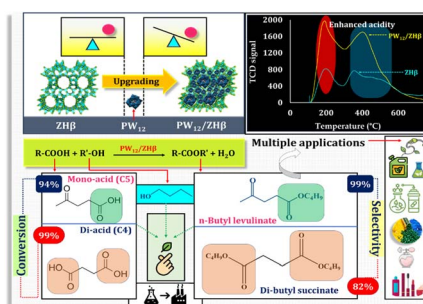
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Synergistic plasmonic–semiconductor heterointerfaces enabling efficient CO₂ hydrogenation to methanol under visible-light irradiation

Abdul Malek, Anh-Tuan Hoang, Md. Tarekul Islam, Mohammad A. Hasnat, Tarikul Islam* and Aminul Islam*

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Upgrading the Brønsted acidity of zeolite Hβ via phosphotungstates: engineering a high-performance catalytic platform for the production of energy-efficient biofuel additives

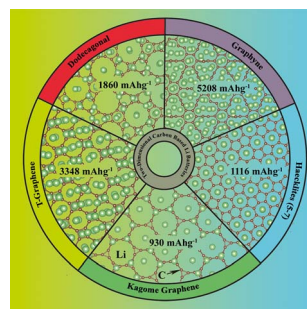
Margi Joshi and Anjali Patel*



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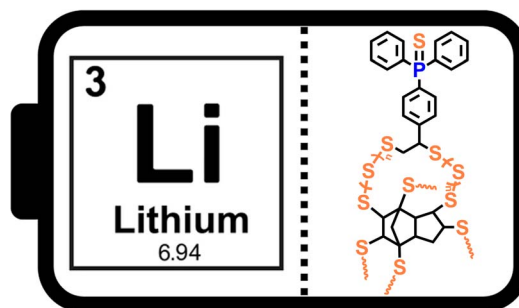
Fuat Bilican, Fatih Ersan* and Sevgi Ozdemir Kart*



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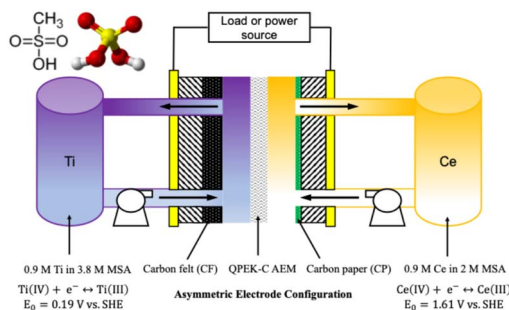
Haoran Wang, Pan Yang, Alex R. Neale, Liam J. Dodd, Peiyao Yan, Bowen Zhang, Laurence J. Hardwick* and Tom Hasell*



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Asymmetric electrode configurations enhance operating power density and energy efficiency of an aqueous, electrode-decoupled titanium–cerium redox flow battery

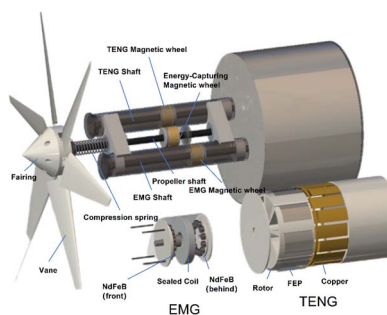
Jing Xie, Shrihari Sankarasubramanian and Vijay Ramani*

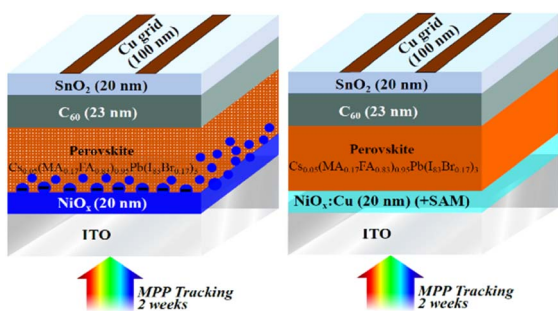


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Switchable tribo-electromagnetic composite generator based on magnetic-spring dynamic coupling for low-velocity flow energy harvesting

Da Che, Xiao Zhang,* Guanzheng Xu, Yanhui Wang, Futian Geng, Siyu Zhang, Fei Zhong and Wanqiang Zhu*





Investigation of interfacial charge-carrier dynamics, degradation, and recombination mechanisms in single-junction perovskite solar cells with NiO_x and SAM hole-transporting layers via steady-state drift-diffusion model simulations

Ivona Kafedjiska,* Vincent M. Le Corre, Hans Köbler, Igal Levine, Rutger Schlatmann and Iver Lauer mann

