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See Francisco J. Martin-Martinez *et al.*, pp. 1271–1282. Image reproduced by permission of Francisco J. Martin-Martinez from *Energy Adv.*, 2024, 3, 1271.



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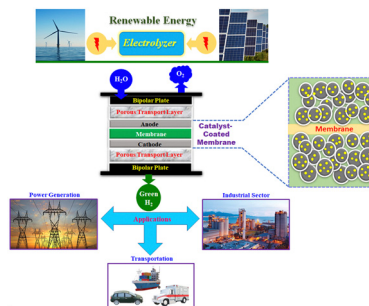
See Hsin-Yi Tiffany Chen, Tsan-Yao Chen *et al.*, pp. 1283–1292. Image reproduced by permission of Hsin-Yi Tiffany Chen from *Energy Adv.*, 2024, 3, 1283.

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Recent advancements in catalyst coated membranes for water electrolysis: a critical review

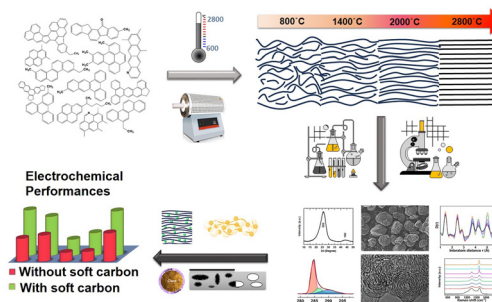
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Shuvajit Ghosh, Mohammad Zaid, Jyotirekha Dutta, Monira Parvin and Surendra K. Martha*



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Fundamental questions
Elemental answers

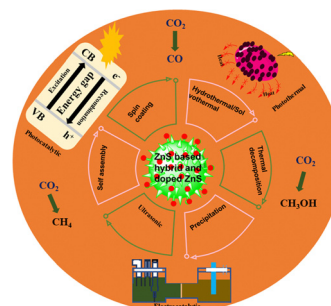


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Evaluation of zinc sulfide heterostructures as catalysts for the transformation of CO₂ into valuable chemicals and clean energy generation

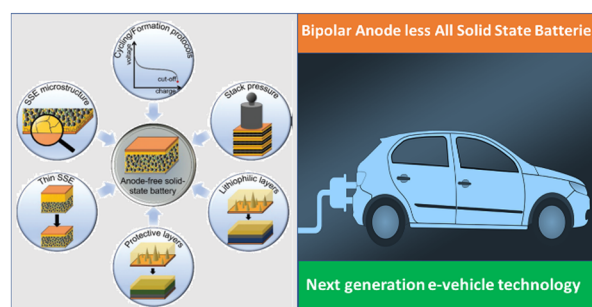
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Anurupa Maiti,* Rasmita Biswal, Soumalya Debnath and Anup Bhunia*

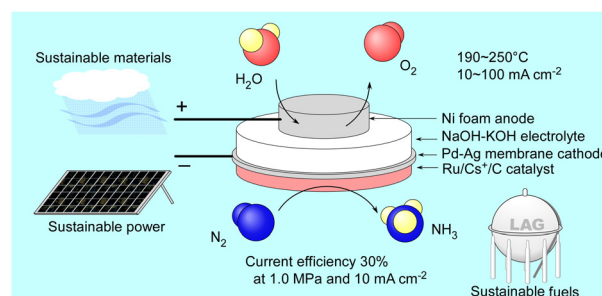


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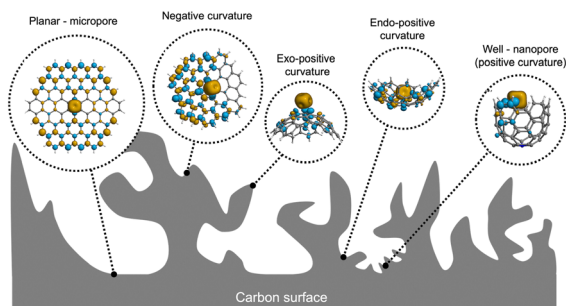
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Electrochemical-catalytic NH₃ synthesis from H₂O and N₂ using an electrochemical cell with a Ru catalyst, Pd–Ag membrane cathode, and NaOH–KOH molten salt electrolyte at 250 °C

Raisei Sagara, Rika Hayashi, Aika Hirata, Shintaroh Nagaishi and Jun Kubota*



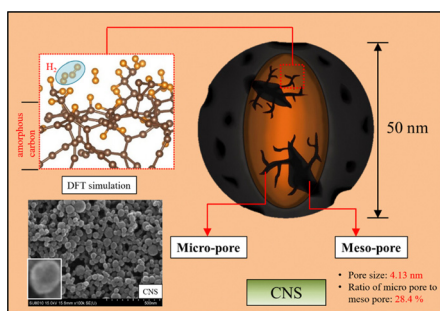
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Understanding the role of nitrogen-doping and surface topology in the binding of Fe(III)/Fe(II) to biobased carbon electrodes

Anna Bachs-Herrera, Isaac Vidal-Daza, Emre B. Boz, Antoni Forner-Cuenca and Francisco J. Martin-Martinez*

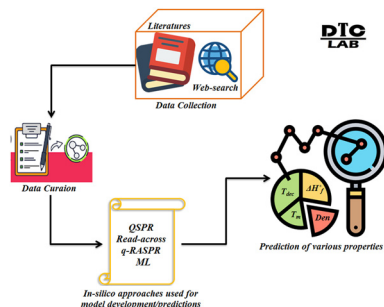
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Glucose-based highly-porous activated carbon nanospheres (g-ACNSs) for high capacity hydrogen storage

Fan-Gang Tseng, Dinesh Bhalothia, Kuan-Hou Lo, Cheng-Huei Syu, Ying-Cheng Chen, Amita Sihag, Che-Wen Wang, Hsin-Yi Tiffany Chen* and Tsan-Yao Chen*

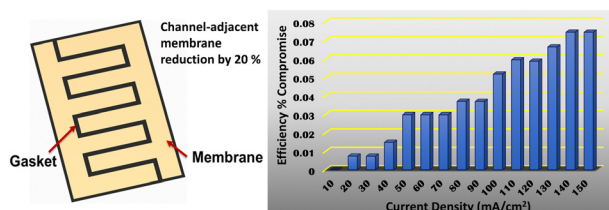
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Shubham Kumar Pandey and Kunal Roy*

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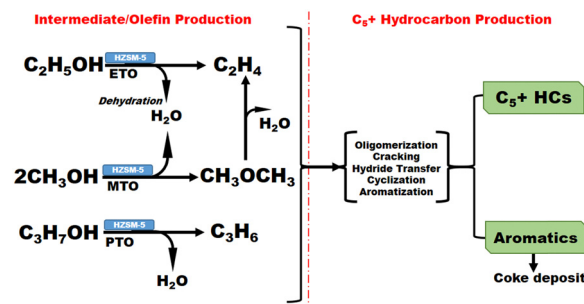
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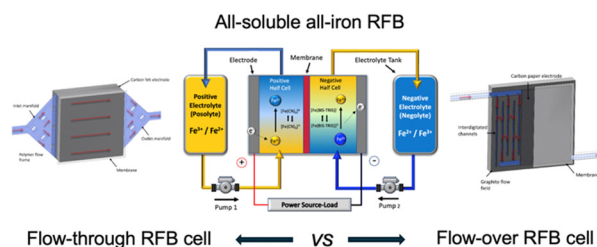
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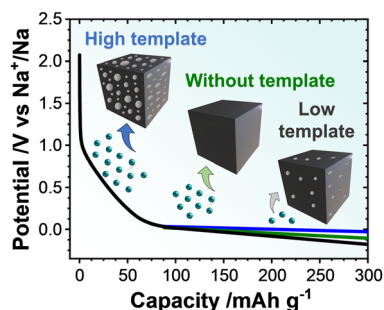
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The impact of templating and macropores in hard carbons on their properties as negative electrode materials in sodium-ion batteries

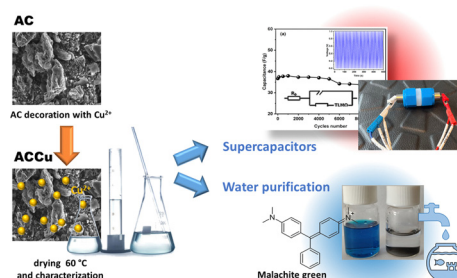
Sofiia Prykhodska, Konstantin Schutjajew, Erik Troschke, Leonid Kaberov, Jonas Eichhorn, Felix H. Schacher, Francesco Walenzsus, Daniel Werner and Martin Oschatz*



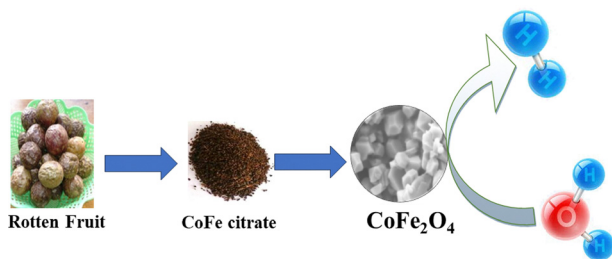
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Carbon framework modification; an interesting strategy to improve the energy storage and dye adsorption

Monika Michalska, Paulina Pietrzyk-Thel, Kamil Sobczak, Mathijs Janssen and Amrita Jain*



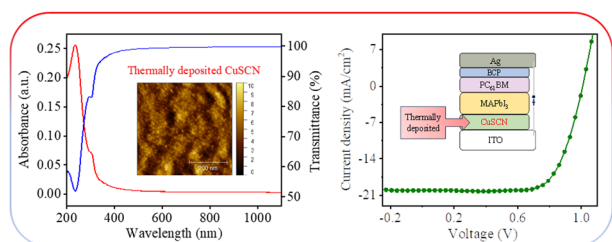
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Green synthesis of cobalt ferrite from rotten passion fruit juice and application as an electrocatalyst for the hydrogen evolution reaction

Rochelin Prosper Medang, Roussin Lontio Fomekong, Edwin Akongnwi Nforna, Hypolite Mathias Tedjiekeng Kamta, Cédrik Ngnintedem Yonti, Patrice Kenfack Tsohnang,* John Ngolui Lambi and Dieudonné Bitondo

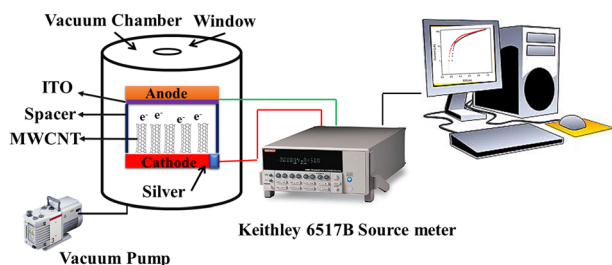
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Thermally deposited copper(i) thiocyanate thin film: an efficient and sustainable approach for the hole transport layer in perovskite solar cells

Rashi Kedia, Manisha Balkhandia, Manisha Khatak, Neeraj Chaudhary and Asit Patra*

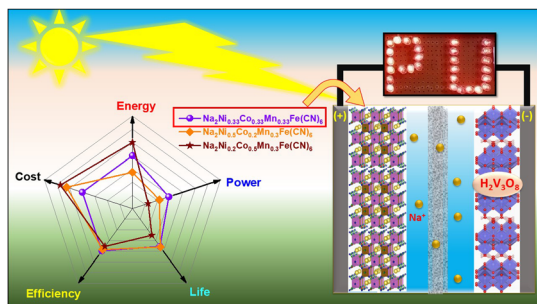
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Excellent field emission with enhanced photodetection behavior of multiwalled carbon nanotubes: experimental and theoretical study

Utkarsh Kumar, Arpit Verma, Ravi Kant Tripathi,* B. C. Yadav,* Toton Haldar, V. V. Tyagi, C. K. Dixit and Wen-Min Huang

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Prussian blue analogues with Na₂Ni_xCo_yMn_zFe(CN)₆-multimetallic structures as positive and hydrogen vanadate as negative electrodes in aqueous Na-ion batteries for solar energy storage applications

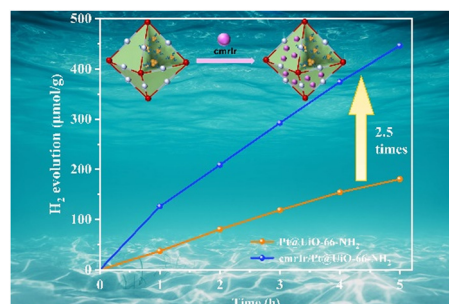
Pappu Naskar, Biplab Biswas, Sourav Laha* and Anjan Banerjee*



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Iridium complex modified MOFs for enhancing photocatalytic hydrogen evolution

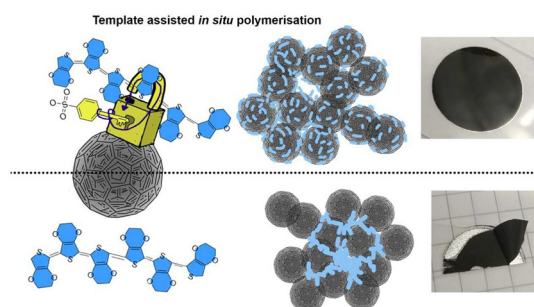
Yue Wang, Yifan Huang, Shihan Liu, Shuaichuan Cui, Yifan Zhang* and Pengyang Deng*



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In situ polymerization of EDOT onto sulfonated onion-like carbon for efficient pseudocapacitor electrodes

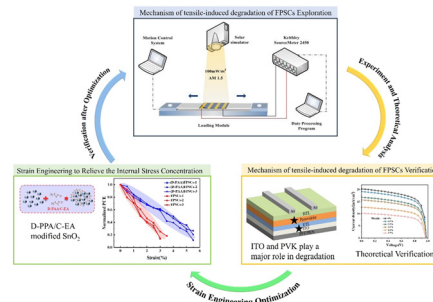
Christian Bauer, Maximilian Kirchner and Anke Krueger*



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Meihe Zhang, Yuzhao Qiang, Zhihao Li, Zhen Li and Chao Zhang*



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Steady states and kinetic modelling of the acid-catalysed ethanolysis of glucose, cellulose, and corn cob to ethyl levulinate

Conall McNamara,* Ailís O'Shea, Prajwal Rao, Andrew Ure, Leandro Ayarde-Henríquez, Mohammad Reza Ghaani, Andrew Ross and Stephen Dooley

