

Energy Advances

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IN THIS ISSUE

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Cover

See Yutaka Moritomo *et al.*, pp. 784–789. Image reproduced by permission of Yutaka Moritomo from *Energy Adv.*, 2024, 3, 784.



Inside cover

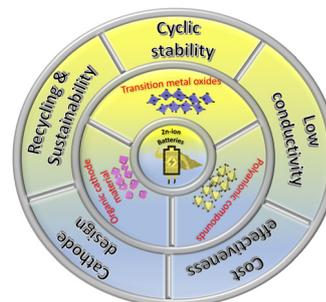
See R. Ajay Rakkesh *et al.*, pp. 676–688. Image reproduced by permission of Ajay Rakkesh Rajendran from *Energy Adv.*, 2024, 3, 676.

REVIEWS

676

Possibilities and challenges of cathode materials for Zn-ion batteries

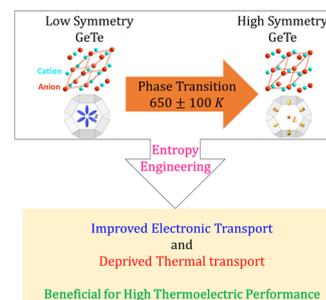
R. Ajay Rakkesh,* S. Shalini, S. Tharani, D. Durgalakshmi and S. Balakumar



689

A comprehensive review of entropy engineered GeTe: an antidote to phase transformation

Ranita Basu* and Ajay Singh



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Fundamental questions
Elemental answers

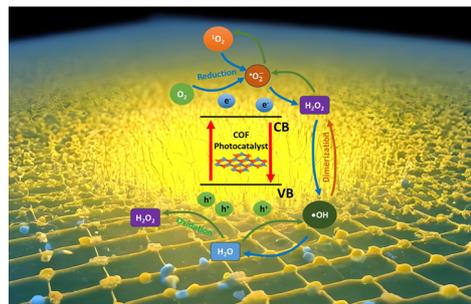


REVIEWS

712

Porous covalent organic frameworks in photocatalytic ROS-mediated processes

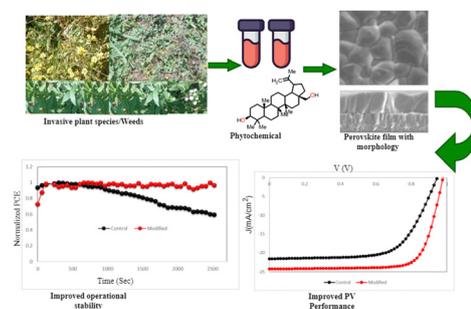
Nikolaos Karousis* and Dimitrios Tasis*



741

Recent trends on the application of phytochemical-based compounds as additives in the fabrication of perovskite solar cells

Naomy Chepngetich, Gloria M. Mumbi, Getnet Meheretu M., Koeh K. Richard,* Geoffrey K. Yegon, Sarah C. Chepkwony, Charles Rono K., Dahiru Sanni, Abdulhakeem Bello and Esidor Ntsoenzok

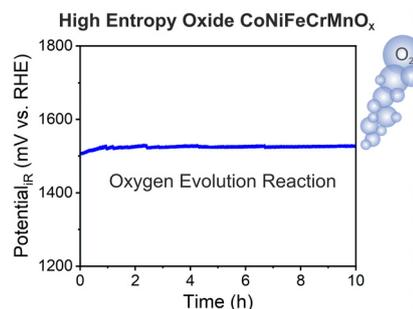


COMMUNICATIONS

765

Fabrication of nanocrystalline high-entropy oxide CoNiFeCrMnO_x thin film electrodes by dip-coating for oxygen evolution electrocatalysis

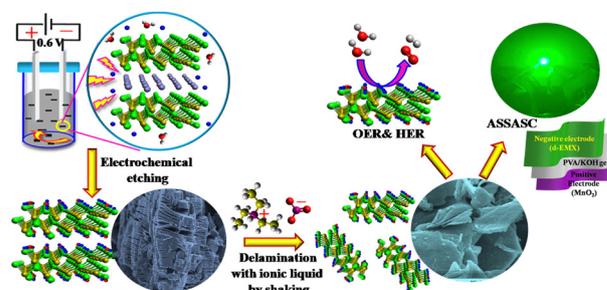
Qingyang Wu, Achim Alkemper, Stefan Lauterbach, Jan P. Hofmann and Marcus Einert*



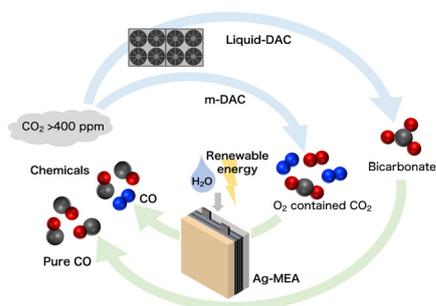
774

A quick and effective strategy for the synthesis of Ti₃C₂T_x via electrochemical method

Shrabani De, Sourav Acharya, Satyanarayan Sahoo and Ganesh Chandra Nayak*



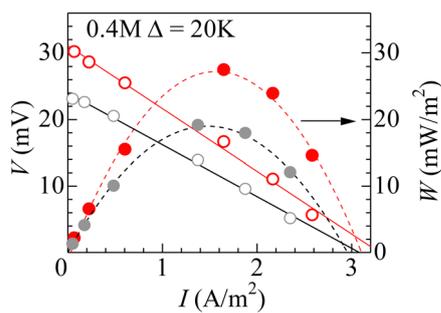
778



A membrane electrode assembly-type cell designed for selective CO production from bicarbonate electrolyte and air containing CO₂ mixed gas

Akina Yoshizawa, Manabu Higashi, Akihiko Anzai and Miho Yamauchi*

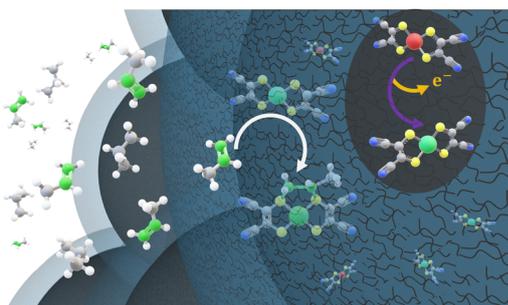
784



Precipitation enhancement of liquid thermoelectric conversion with Fe(ClO₄)₂/Fe(ClO₄)₃ dissolved in DMF

Akihiro Wake, Dai Inoue and Yutaka Moritomo*

790



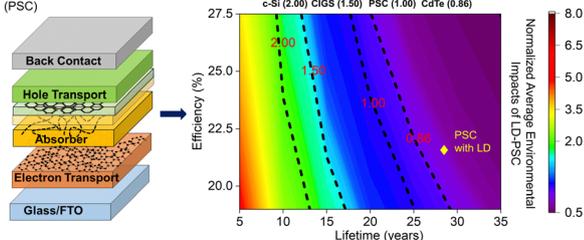
Electrochemically modulated separation of olefin–paraffin gas mixtures in membrane electrode assemblies

Toshihiro Akashige, Adlai B. Katzenberg, Daniel M. Frey, Debdyuti Mukherjee, César A. Urbina Blanco, Brian Chen, Yoshiyuki Okamoto and Miguel A. Modestino*

800

Integration of lower dimensional (LD) materials into hole transport, absorber, and electron transport layers of perovskite solar cells (PSC)

Improved environmental performance of LD materials integrated PSC compared to crystalline silicon, CIGS, and CdTe PV technologies.



Life cycle assessment of low-dimensional materials for perovskite photovoltaic cells

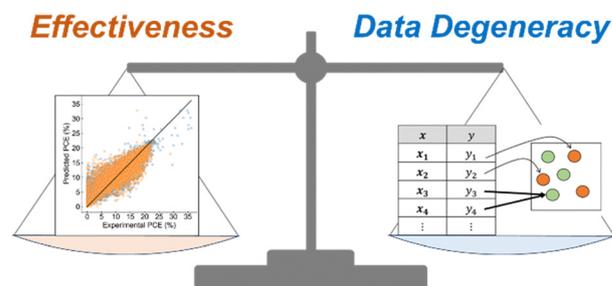
Achyuth Ravilla, Carlo A. R. Perini, Juan-Pablo Correa-Baena, Anita W. Y. Ho-Baillie and Ilke Celik*



812

Effectiveness and limitation of the performance prediction of perovskite solar cells by process informatics

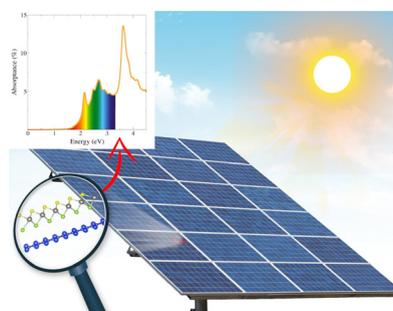
Ryo Fukasawa, Toru Asahi and Takuya Taniguchi*



821

Optical properties enhancement via WSSe/silicene solar cell junctions

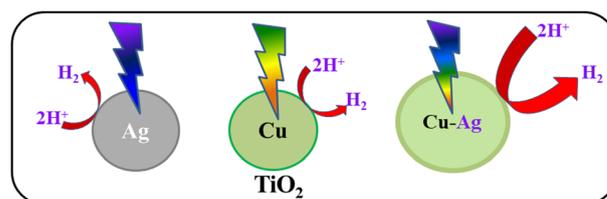
Renan Narciso Pedrosa,* Cesar E. P. Villegas, A. R. Rocha, Rodrigo G. Amorim and Wanderlã L. Scopel



829

Bimetallic and plasmonic Ag and Cu integrated TiO₂ thin films for enhanced solar hydrogen production in direct sunlight

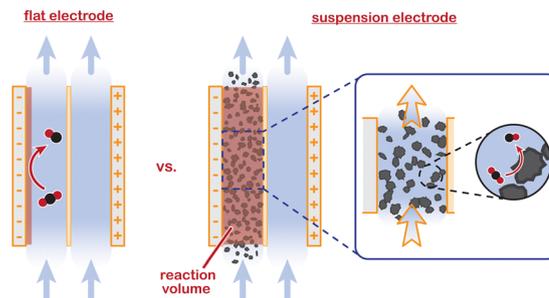
Sunesh S. Mani, Sivaraj Rajendran, Pushkaran S. Arun, Aparna Vijaykumar, Thomas Mathew* and Chinnakonda S. Gopinath*



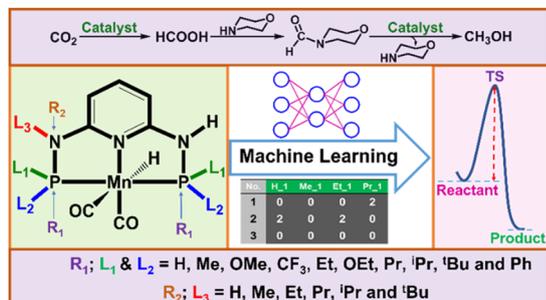
841

Practical potential of suspension electrodes for enhanced limiting currents in electrochemical CO₂ reduction

Nathalie E. G. Ligthart, Gerard Prats Vergel, Johan T. Padding and David A. Vermaas*



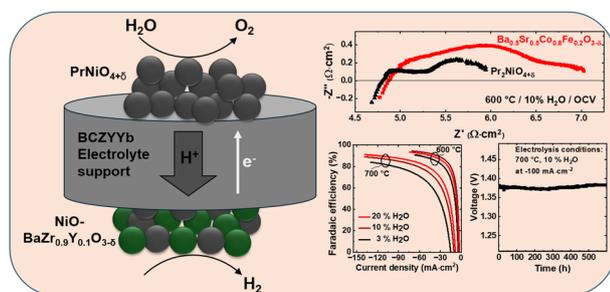
854



Machine learning-based screening of Mn-PNP catalysts for the CO₂ reduction reaction using a region-wise ligand-encoded feature matrix

Amitabha Das, Diptendu Roy, Shyama Charan Mandal and Biswarup Pathak*

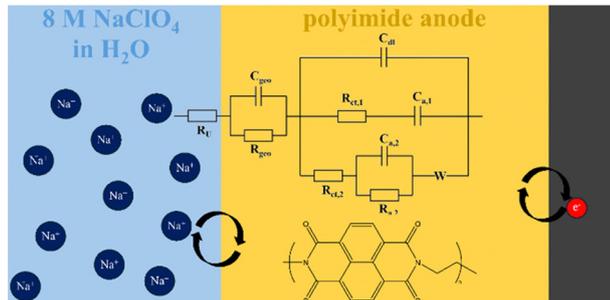
861



A highly stable Pr₂NiO_{4+δ} oxygen electrode in electrolyte supported protonic ceramic electrolysis cells (PCECs) for hydrogen production with high faradaic efficiency

Leon Schley, Vaibhav Vibhu,* Lucy Nohl, Izaak C. Vinke, L. G. J. (Bert) de Haart and Rüdiger-A. Eichel

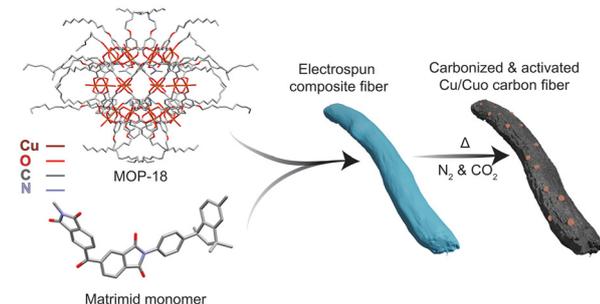
874



Identifying the charge storage mechanism in polyimide anodes for Na-ion aqueous batteries by impedance spectroscopy

Raphael L. Steng, Sergei Vagin, Yuejie Guo, Bernhard Rieger and Aliaksandr S. Bandarenka*

883



Carbon fiber composite electrodes derived from metal organic polyhedra-18 and matrimid for hybrid supercapacitors

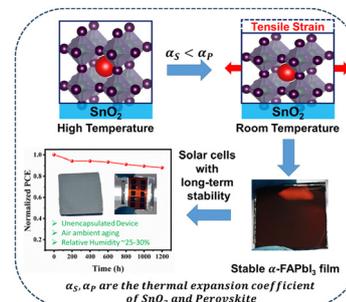
Syed Fahad Bin Haque, Yafen Tian, Daniel W. Tague, Kenneth J. Balkus Jr. and John P. Ferraris*



894

Stress-induced stabilization of the photoactive FAPbI₃ phase under ambient conditions without using an additive approach

Shivam Porwal, Nitin Kumar Bansal, Subrata Ghosh and Trilok Singh*



904

Oxygen-rich hierarchical porous carbon nanosheets derived from the KOH/KNO₃ co-activation treatment of soybean straw for high-performance supercapacitors

Yunxuan Li, Chuixiong Kong, Zurong Du,* Ju Zhang, Xuan Qin, Jiwei Zhang, Chulin Li, Yang Jin and Shenggao Wang*

