

# Energy Advances

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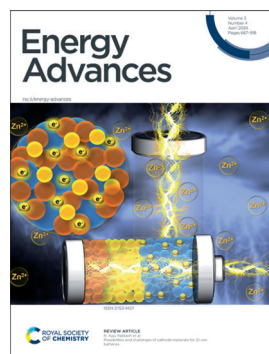
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### Cover

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



### Inside cover

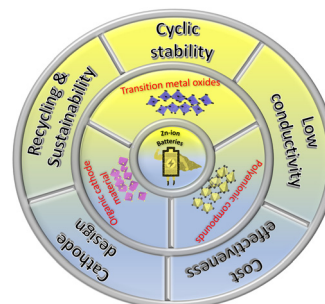
See R. Ajay Rakkesh *et al.*, pp. 676–688. Image reproduced by permission of Ajay Rakkesh Rajendran from *Energy Adv.*, 2024, 3, 676.

## REVIEWS

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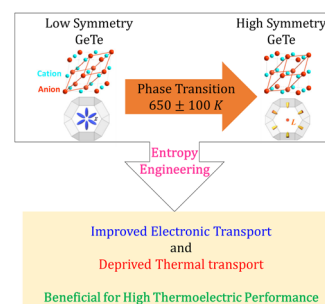
R. Ajay Rakkesh,\* S. Shalini, S. Tharani, D. Durgalakshmi and S. Balakumar



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

Ranita Basu\* and Ajay Singh



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Elemental answers

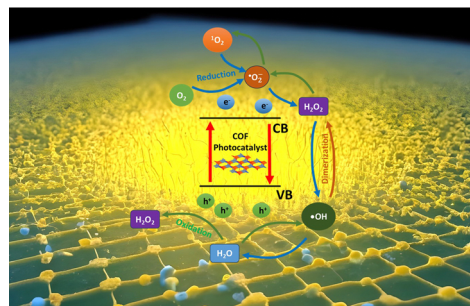


## REVIEWS

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## Porous covalent organic frameworks in photocatalytic ROS-mediated processes

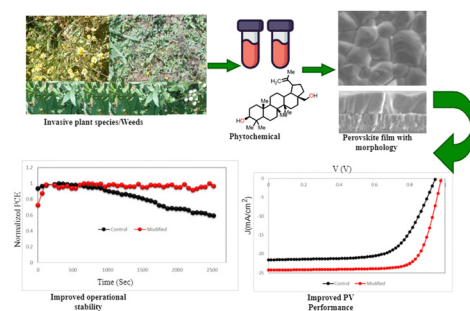
Nikolaos Karousis\* and Dimitrios Tasis\*



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## 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., Koech K. Richard,\* Geoffrey K. Yegon, Sarah C. Chepkwony, Charles Rono K., Dahiru Sanni, Abdulhakeem Bello and Esidor Ntsoenzok

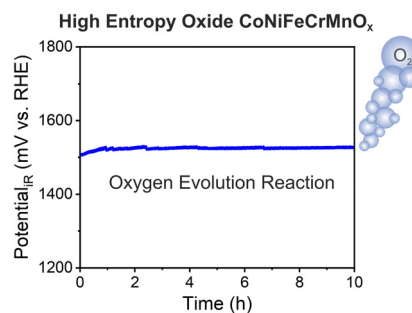


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## Fabrication of nanocrystalline high-entropy oxide $\text{CoNiFeCrMnO}_x$ thin film electrodes by dip-coating for oxygen evolution electrocatalysis

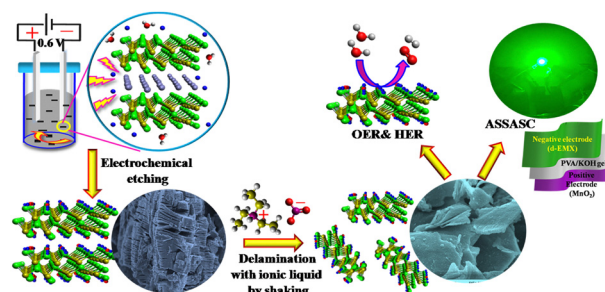
Qingyang Wu, Achim Alkemper, Stefan Lauterbach, Jan P. Hofmann and Marcus Einert\*



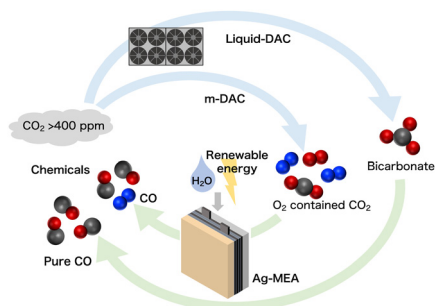
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## A quick and effective strategy for the synthesis of $\text{Ti}_3\text{C}_2\text{T}_x$ via electrochemical method

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



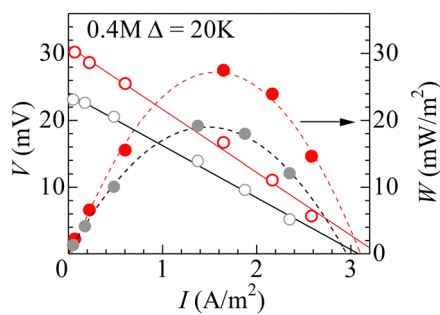
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### A membrane electrode assembly-type cell designed for selective CO production from bicarbonate electrolyte and air containing CO<sub>2</sub> mixed gas

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

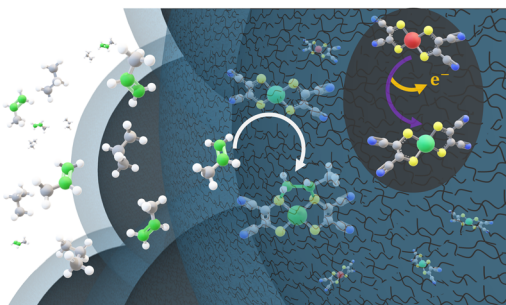
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### Precipitation enhancement of liquid thermoelectric conversion with Fe(ClO<sub>4</sub>)<sub>2</sub>/Fe(ClO<sub>4</sub>)<sub>3</sub> dissolved in DMF

Akihiro Wake, Dai Inoue and Yutaka Moritomo\*

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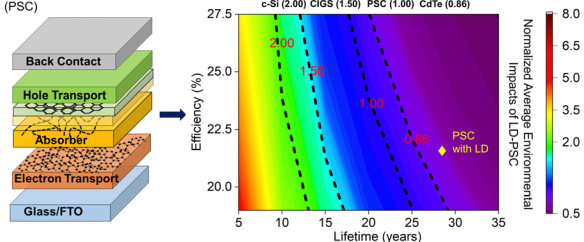
### Electrochemically modulated separation of olefin–paraffin gas mixtures in membrane electrode assemblies

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

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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

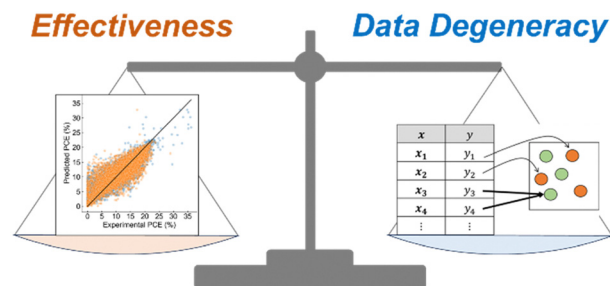
Achyuth Ravilla, Carlo A. R. Perini, Juan-Pablo Correa-Baena, Anita W. Y. Ho-Baillie and Ilke Celik\*



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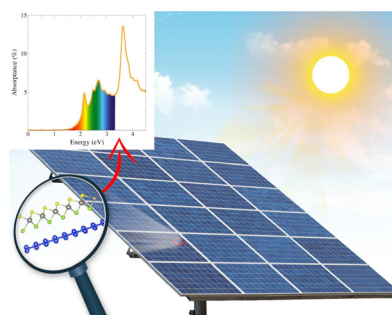
Ryo Fukasawa, Toru Asahi and Takuya Taniguchi\*



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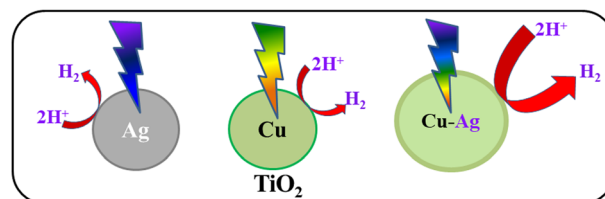
Renan Narciso Pedrosa,\* Cesar E. P. Villegas, A. R. Rocha, Rodrigo G. Amorim and Wanderlã L. Scopel



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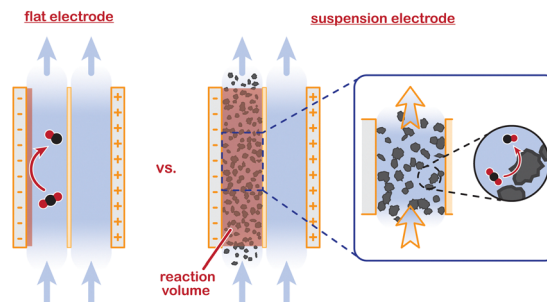
Sunesh S. Mani, Sivaraj Rajendran, Pushkaran S. Arun, Aparna Vijaykumar, Thomas Mathew\* and Chinnakonda S. Gopinath\*



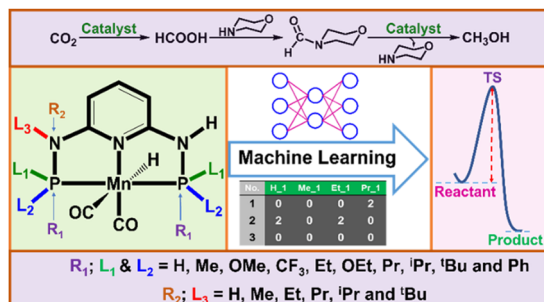
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### Practical potential of suspension electrodes for enhanced limiting currents in electrochemical CO<sub>2</sub> reduction

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



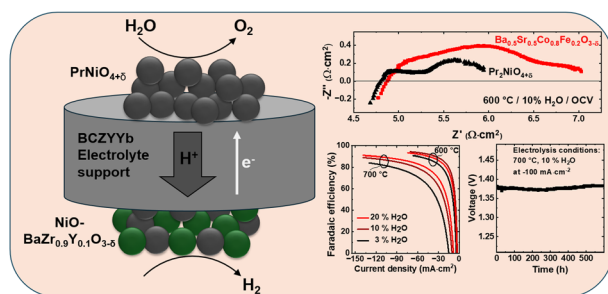
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### Machine learning-based screening of Mn-PNP catalysts for the CO<sub>2</sub> reduction reaction using a region-wise ligand-encoded feature matrix

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

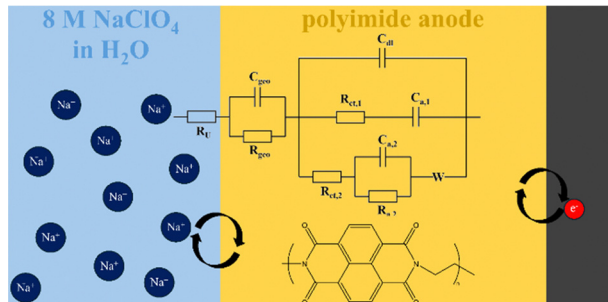
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### A highly stable Pr<sub>2</sub>NiO<sub>4+δ</sub> oxygen electrode in electrolyte supported protonic ceramic electrolysis cells (PCECs) for hydrogen production with high faradaic efficiency

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

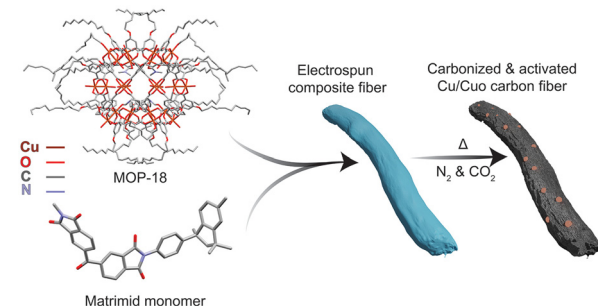
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### Identifying the charge storage mechanism in polyimide anodes for Na-ion aqueous batteries by impedance spectroscopy

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

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

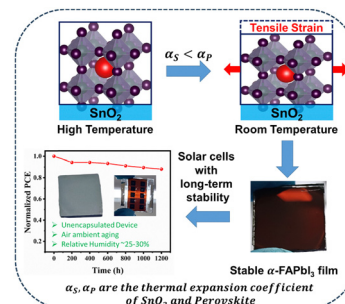
Syed Fahad Bin Haque, Yafen Tian, Daniel W. Tague, Kenneth J. Balkus Jr. and John P. Ferraris\*



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### Stress-induced stabilization of the photoactive FAPbI<sub>3</sub> phase under ambient conditions without using an additive approach

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



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### Oxygen-rich hierarchical porous carbon nanosheets derived from the KOH/KNO<sub>3</sub> 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\*

