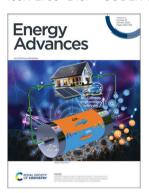
# **Energy Advances**

# rsc.li/energy-advances

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

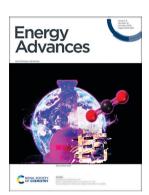
## IN THIS ISSUE

ISSN 2753-1457 CODEN EANDBJ 4(10) 1203-1314 (2025)



#### Cover

See Héctor D. Abruña, Dean H. Barrett, Kenneth I. Ozoemena et al., pp. 1229-1240. Image reproduced by permission of Kenneth I. Ozoemena and co-workers from Energy Adv., 2025, 4, 1229.



#### Inside cover

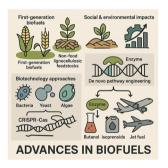
See Wolfgang Schöfberger et al., pp. 1241-1250. Image reproduced by permission of Wolfgang Schöfberger from Energy Adv., 2025, 4, 1241.

#### **REVIEW**

1209

Synthetic biology and metabolic engineering paving the way for sustainable next-gen biofuels: a comprehensive review

Jiten Yadav.\* Harneet Marwah and Chandra Kumar\*

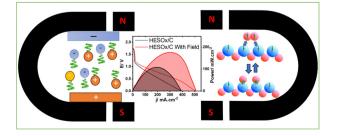


### **PAPERS**

1229

Magnetic enhancement of high-entropy oxide electrocatalysts for high areal-energy rechargeable zinc air batteries

Ernst H. Hechter, Aderemi B. Haruna, Xiao-Yu Yang, Maxwell W. Terban, Héctor D. Abruña,\* Dean H. Barrett\* and Kenneth I. Ozoemena\*





# Royal Society of Chemistry approved training courses

Explore your options.

Develop your skills.

Discover learning that suits you.

Courses in the classroom, the lab, or online

Find something for every stage of your professional development. Search our database by:

- subject area
- location
- event type
- skill level

Members get at least 10% off

Visit rsc.li/cpd-training

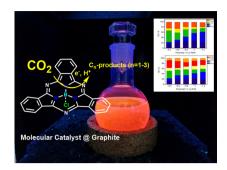


#### **PAPERS**

#### 1241

# Boron subphthalocyanine complexes for CO<sub>2</sub> electroreduction: molecular design and catalytic insights

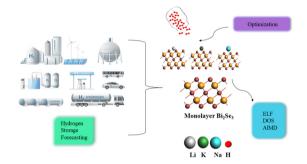
Farzaneh Yari, Simon Offenthaler, Sankit Vala, Dominik Krisch, Markus Scharber and Wolfgang Schöfberger\*



#### 1251

# First principles study of alkali metal-decorated bismuth selenide for hydrogen storage applications

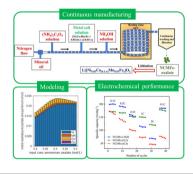
Asma Kiran, Saleh S. Alarfaji, Muhammad Bilal Tahir and Muhammad Isa Khan\*



#### 1267

# Slug-flow-based continuous manufacturing of Fe-substituted Ni-rich NCM cathodes for lithium-ion batteries: synthesis and modeling

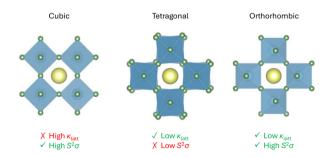
Arjun Patel, Michael L. Rasche, Sourav Mallick, Sunuk Kim, Mo Jiang, Mariappan Parans Paranthaman, Herman Lopez and Ram B. Gupta\*



#### 1279

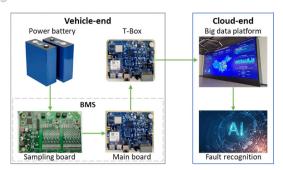
# Impact of crystal structure on the thermoelectric properties of n-type SrTiO<sub>3</sub>

Alveena Z. Khan, Joseph M. Flitcroft and Jonathan M. Skelton\*



# **PAPERS**

# 1295



A sampling fault diagnosis method for power battery data in cloud platforms based on a ResNet-BiLSTM neural network

Yuntao Jin, Zhengjie Zhang,\* Baitong Chang, Rui Cao, Hanqing Yu, Yefan Sun, Xinhua Liu and Shichun Yang