

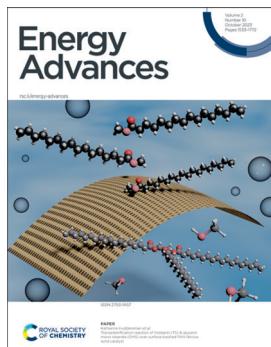
# Energy Advances

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ISSN 2753-1457 CODEN EANDBJ 2(10) 1533–1772 (2023)



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See Katherine Huddersman *et al.*, pp. 1604–1625.  
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### Inside cover

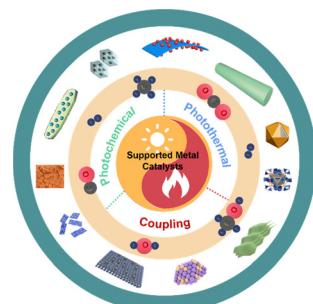
See Milton Chai, Jingwei Hou *et al.*, pp. 1591–1603.  
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## REVIEWS

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### Photothermal catalytic C1 conversion on supported catalysts

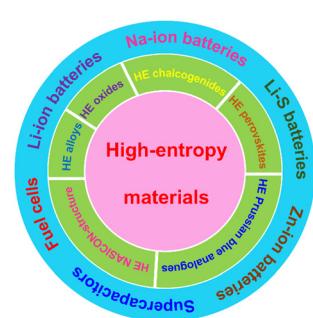
Hui Liu, Liangliang Han, Xiaoguang Duan, Hongqi Sun, Shaobin Wang and Jinqiang Zhang\*



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### High-entropy materials for electrochemical energy storage devices

Jie Qu, Mark A. Buckingham and David J. Lewis\*



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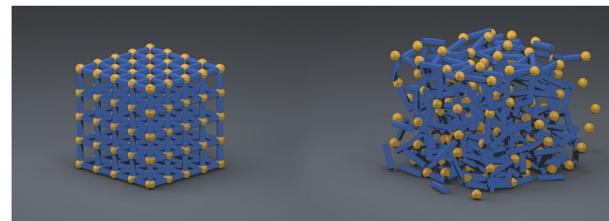


## PERSPECTIVE

1591

**Amorphous MOFs for next generation supercapacitors and batteries**

Wupeng Wang, Milton Chai,\* Rijia Lin, Fangfang Yuan, Lianzhou Wang, Vicki Chen and Jingwei Hou\*

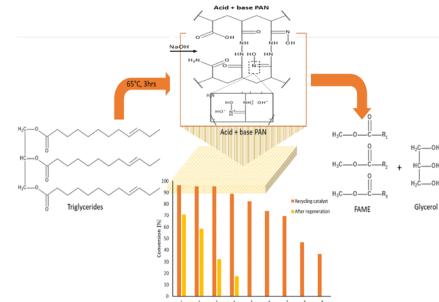


## PAPERS

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**Transesterification reaction of tristearin (TS) & glycerol mono stearate (GMS) over surface basified PAN fibrous solid catalyst**

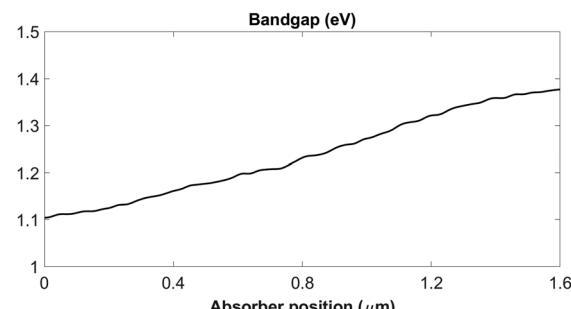
Rawaz A. Ahmed, Sanaa Rashid, Ketan Ruparelia and Katherine Huddersman\*



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**A study of bandgap-graded CZTGSe kesterite thin films for solar cell applications**

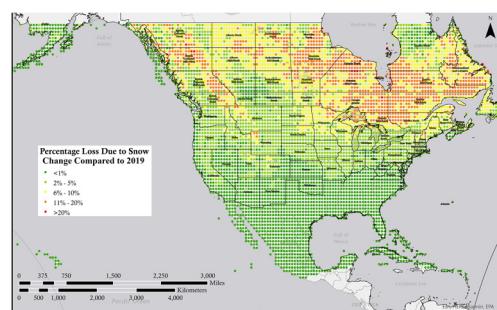
Romain Scaffidi,\* Guy Brammertz, Yibing Wang, Arman Uz Zaman, Keerthi Sasikumar, Jessica de Wild, Denis Flandre and Bart Vermang



1634

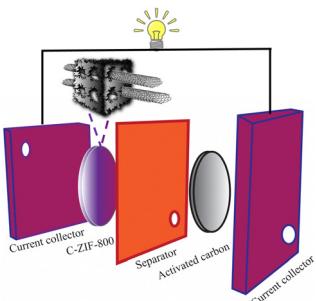
**The impact of snow losses on solar photovoltaic systems in North America in the future**

Ryan A. Williams, Daniel J. Lizzadro-McPherson and Joshua M. Pearce\*



## PAPERS

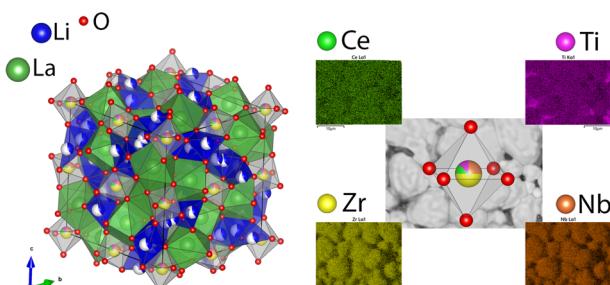
1650



### High-performance asymmetric supercapacitor device with nickel–cobalt bimetallic sites encapsulated in multilayered nanotubes

Rahul Patil, Lingaraj Pradhan, Babasaheb M. Matsagar, Omnarayan Agrawal, Kevin C.-W. Wu, Bikash Kumar Jena\* and Saikat Dutta\*

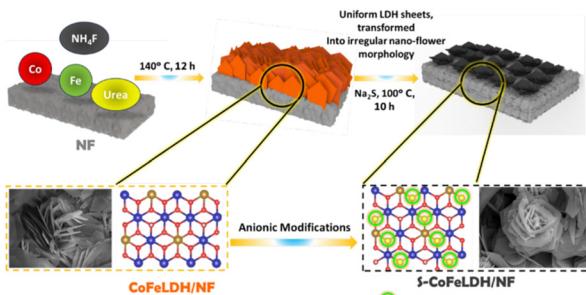
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### Rapid sintering of $\text{Li}_{6.5}\text{La}_3\text{Zr}_1\text{Nb}_{0.5}\text{Ce}_{0.25}\text{Ti}_{0.25}\text{O}_{12}$ for high density lithium garnet electrolytes with current induced *in situ* interfacial resistance reduction

M. P. Stockham,\* B. Dong, M. S. James, P. Zhu, E. Kendrick and P. R. Slater\*

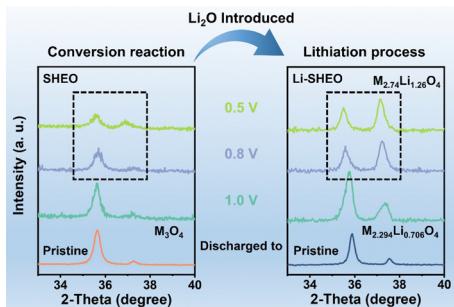
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### A 3D-hierarchical flower like architecture of anion induced layered double hydroxides for competing anodic reactions

Krishankant, Aashi, Baljeet Kaur, Jatin Sharma, Chandan Bera and Vivek Bagchi\*

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### Understanding the lithiation mechanism of $\text{Li}_2\text{O}$ -doped spinel high-entropy oxides as anode materials for Li-ion batteries

Guozhe Ma, Yu Zheng, Fanbo Meng and Renzong Hu\*

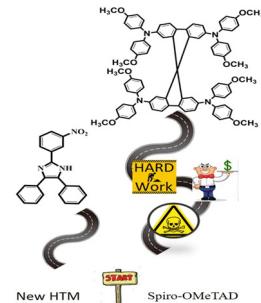


## PAPERS

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**Design and development of a low-cost imidazole-based hole transporting material for perovskite solar cells**

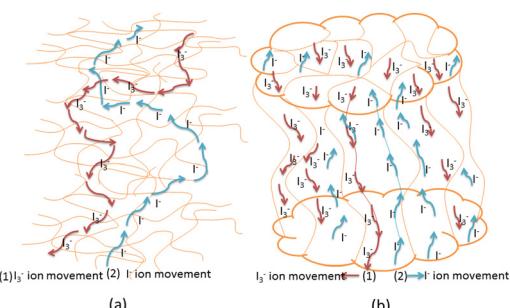
Fatemeh Sadeghi, Babak Pashaei, Babak Nemati Bideh, Negin Sabahi, Hashem Shahroosvand\* and Mohammad Khaja Nazeeruddin\*



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**A novel poly(acrylonitrile)/poly(ethylene glycol)-based polymer gel electrolyte for high efficiency dye sensitized solar cells**

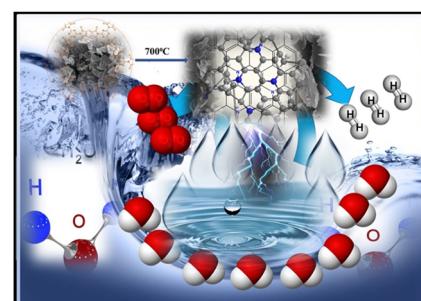
Madhu Mohan Varishetty,\* Murakami Kenji, Nazia Tarannum, Srinivasa Rao Damaraju and Madhavi Jonnalagadda



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**Generation of covalent organic framework-derived porous N-doped carbon nanosheets for highly efficient electrocatalytic hydrogen evolution**

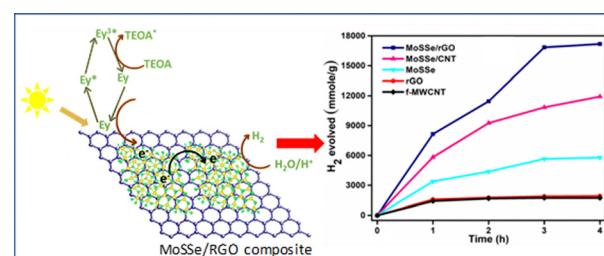
Sayan Halder, Anup Kumar Pradhan, Soumen Khan and Chanchal Chakraborty\*



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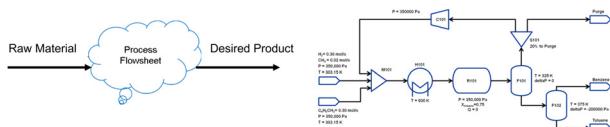
**Molybdenum sulfo-selenide nanocomposites with carbon nanotubes and reduced graphene oxide for photocatalytic hydrogen evolution reaction**

Namsheer K. K. Pramoda,\* Kothanahally S. Sharath Kumar, Sithara Radhakrishnan and Chandra Sekhar Rout\*



## PAPERS

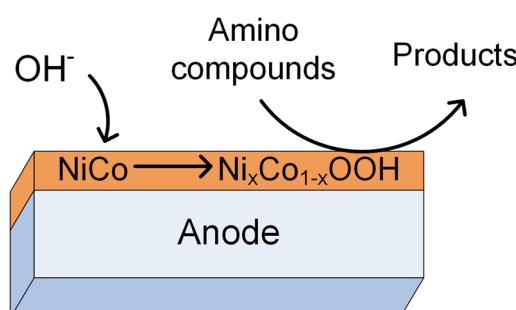
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**A coupled reinforcement learning and IDAES process modeling framework for automated conceptual design of energy and chemical systems**

Dewei Wang,\* Jie Bao,\* Miguel A. Zamarripa-Perez, Brandon Paul, Yunxiang Chen, Peiyuan Gao, Tong Ma, Alexander A. Noring, Arun K. S. Iyengar, Daniel T. Schwartz, Erica E. Eggleton, Qizhi He, Andrew Liu, Olga A. Marina, Brian Koeppl and Zhijie Xu

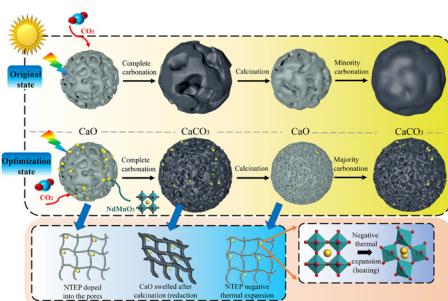
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**Electrocatalytic behavior of amino compound oxidation on NiCo catalyst and energy conversion**

Wei Xu,\* Zhaozhao Yan, Chunhong Liu, Xu Yang, Hua Yu, Hongchao Chang, Jiarong Zang, Guangyao Xu, Linmin Du and Binbin Yu\*

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**Long-stable solar energy capture and storage via negative thermal expansion regulated calcium-based particles**

Jingrui Liu, Yimin Xuan,\* Liang Teng, Chen Sun, Qibin Zhu and Xianglei Liu

## CORRECTION

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**Correction: Understanding the lithiation mechanism of  $\text{Li}_2\text{O}$ -doped spinel high-entropy oxides as anode materials for Li-ion batteries**

Guozheng Ma, Yu Zheng, Fanbo Meng and Renzong Hu\*

