Journal of Materials Chemistry A

Materials for energy and sustainability

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IN THIS ISSUE

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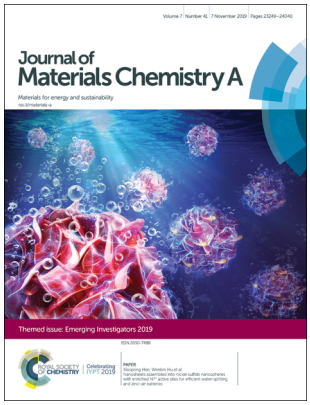

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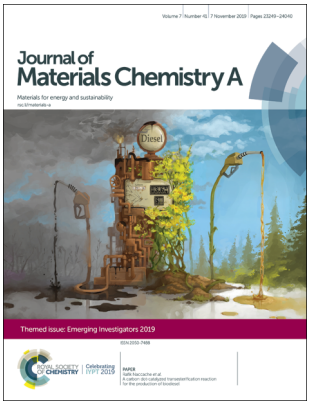

Inside cover
See Rafik Naccache *et al.*, pp. 23794–23802.
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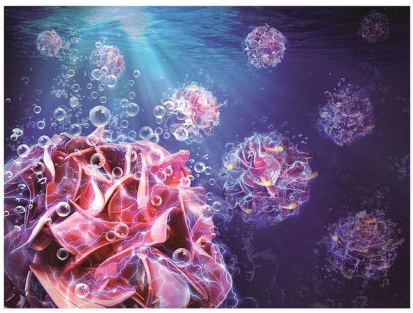

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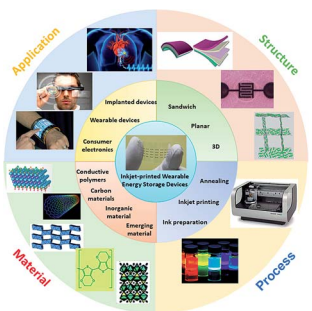

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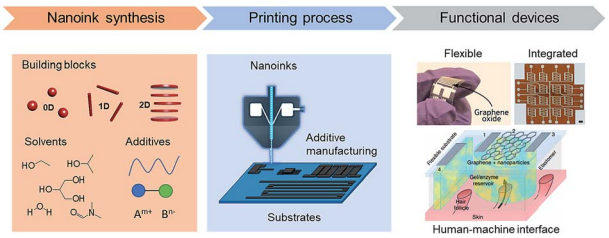

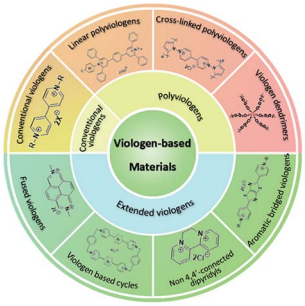

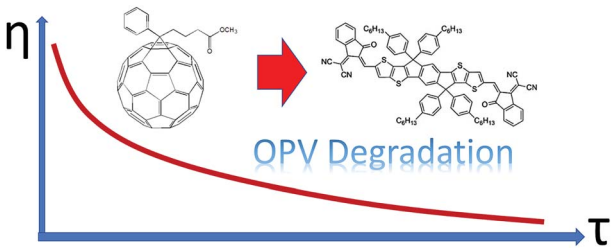

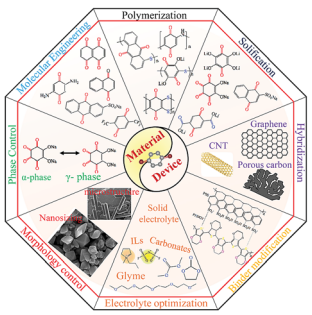

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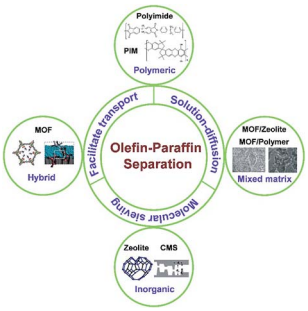

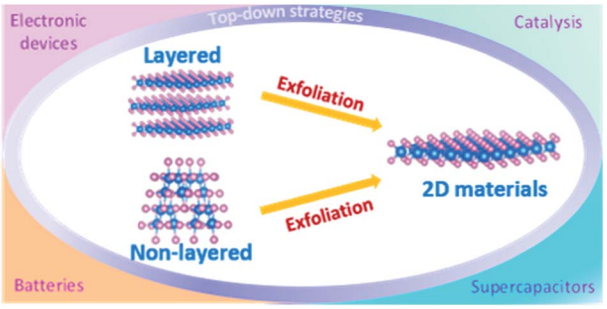

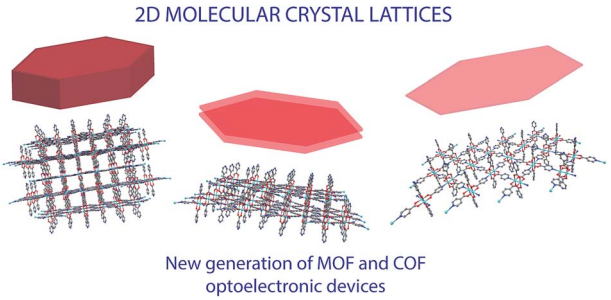

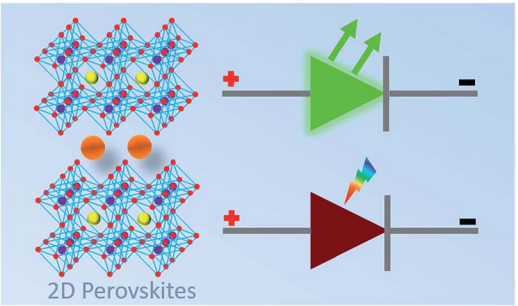

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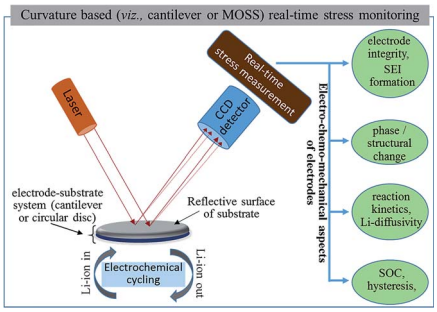

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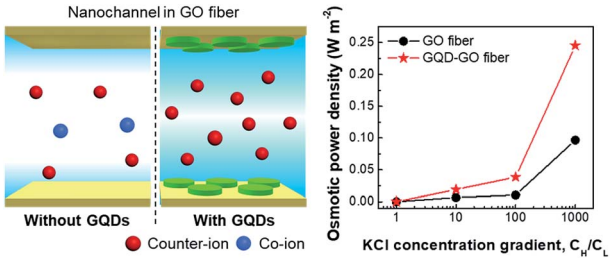

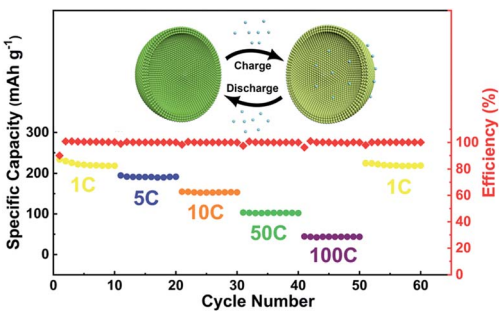

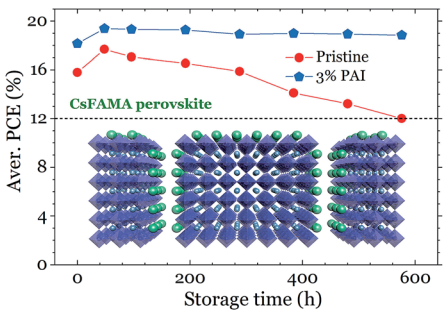

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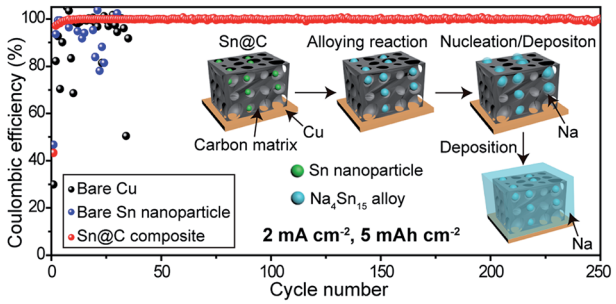

Tin nanoparticles embedded in a carbon buffer layer as preferential nucleation sites for stable sodium metal anodes

Huan Wang, Edward Matios, Chuanlong Wang, Jianmin Luo, Xuan Lu, Xiaofei Hu, Yiwen Zhang and Weiyang Li*

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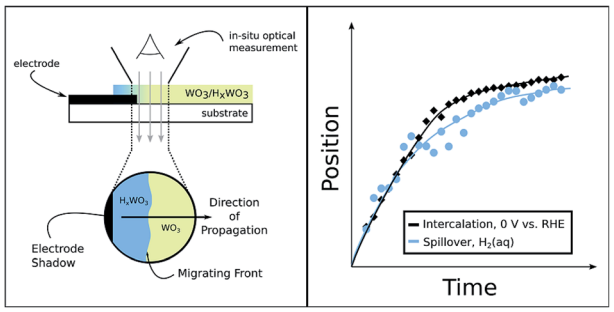

Comparisons of WO_3 reduction to H_xWO_3 under thermochemical and electrochemical control

Evan V. Miu and James R. McKone*

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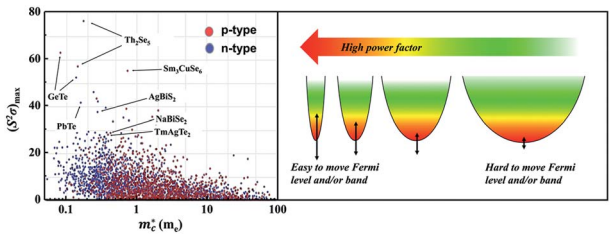

Inertial effective mass as an effective descriptor for thermoelectrics *via* data-driven evaluation

Ady Suwardi, Daniil Bash, Hong Kuan Ng, Jose Recatala Gomez, D. V. Maheswar Repaka, Pawan Kumar and Kedar Hippalgaonkar*

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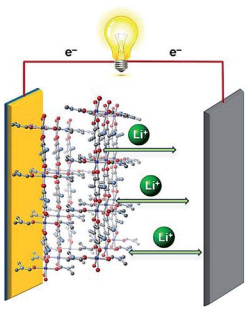

Elucidating metal and ligand redox activities of a copper-benzoquinoid coordination polymer as the cathode for lithium-ion batteries

Cheng-Han Chang, An-Che Li, Ilja Popovs, Watchareeya Kaveevivitchai, Jeng-Lung Chen, Kai-Chun Chou, Ting-Shen Kuo and Teng-Hao Chen*

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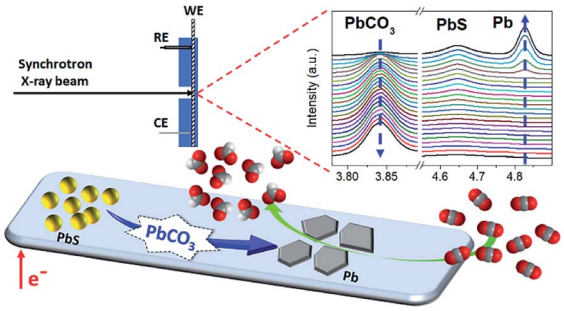

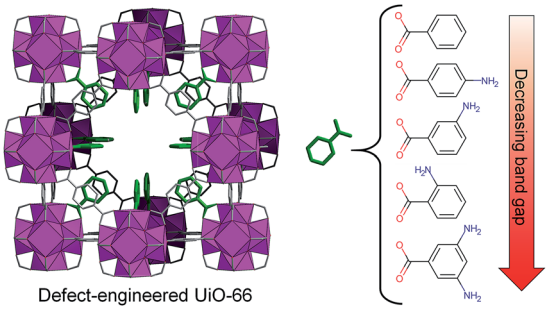

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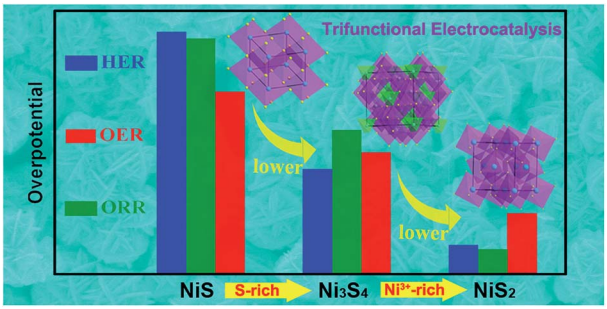

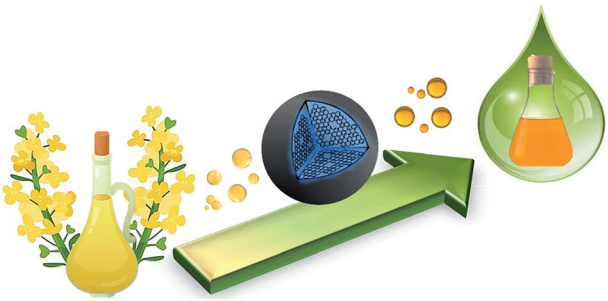

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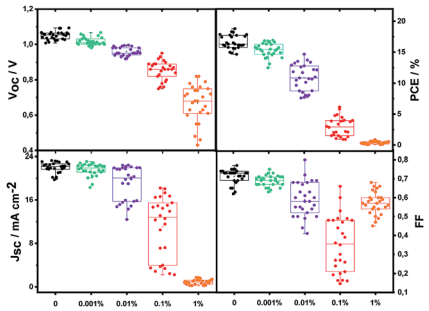

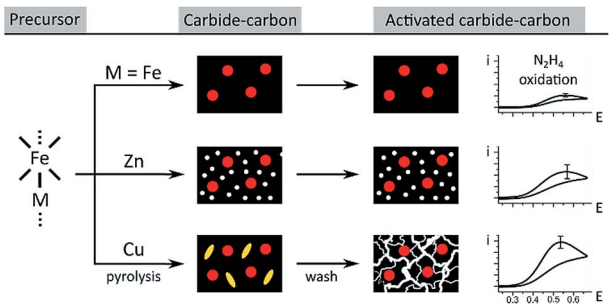

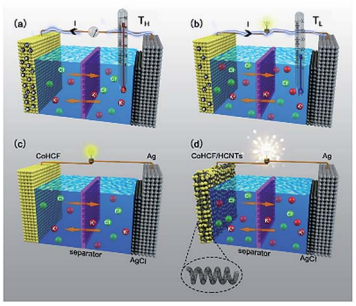

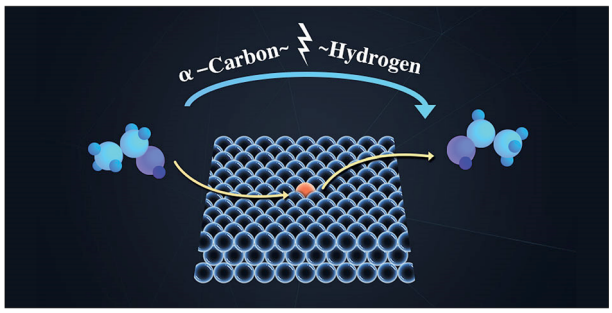

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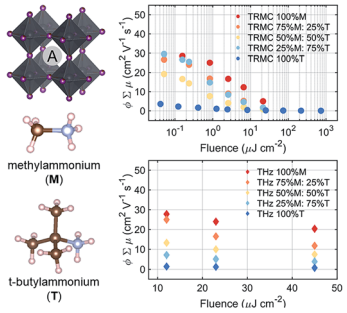

The effect of structural dimensionality on carrier mobility in lead-halide perovskites

Noor Titan Putri Hartono, Shijing Sun, María C. Gélvez-Rueda, Polly J. Pierone, Matthew P. Erodici, Jason Yoo, Fengxia Wei, Moungi Bawendi, Ferdinand C. Grozema, Meng-ju Sher, Tonio Buonassisi* and Juan-Pablo Correa-Baena*

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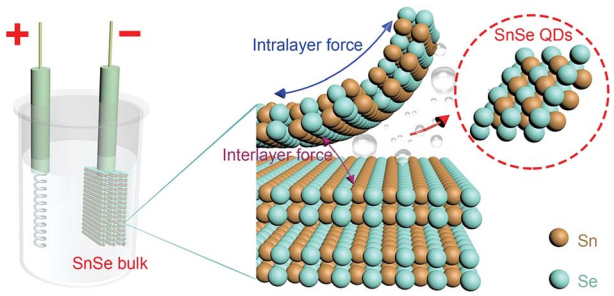

High yield electrochemical exfoliation synthesis of tin selenide quantum dots for high-performance lithium-ion batteries

Jing Li, Wei Liu, Cheng Chen, Xiaoxu Zhao, Zhizhan Qiu, Haomin Xu, Feng Sheng, Qifeng Hu, Yi Zheng, Ming Lin, Stephen J. Pennycook, Chenliang Su* and Jiong Lu*

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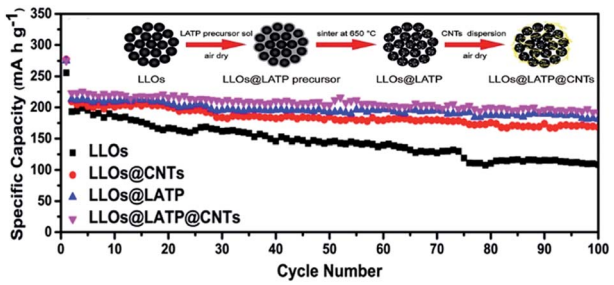

Enhanced structural stability and overall conductivity of Li-rich layered oxide materials achieved by a dual electron/lithium-conducting coating strategy for high-performance lithium-ion batteries

Dan Gao, Zhisen Zeng, Hongwei Mi, Lingna Sun, Xiangzhong Ren, Peixin Zhang and Yongling Li*

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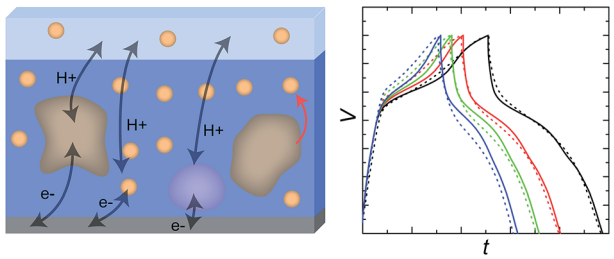

Understanding the characteristics of conducting polymer-redox biopolymer supercapacitors

Musbaudeen O. Bamgbopa, Jesper Edberg, Isak Engquist, Magnus Berggren* and Klas Tybrandt*

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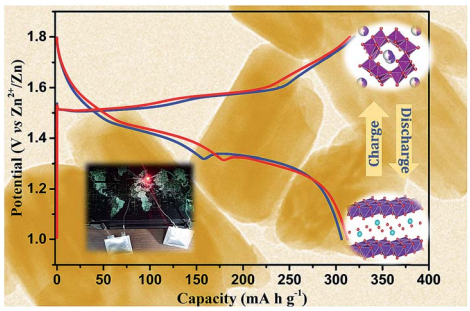

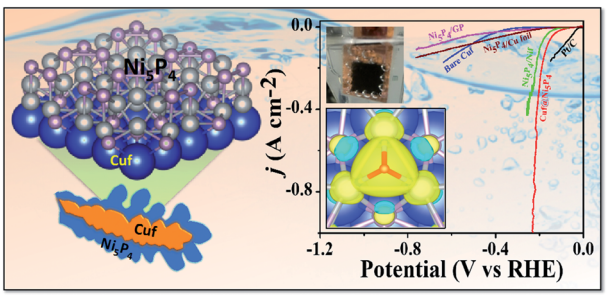

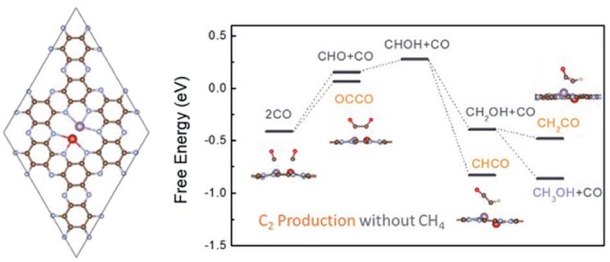

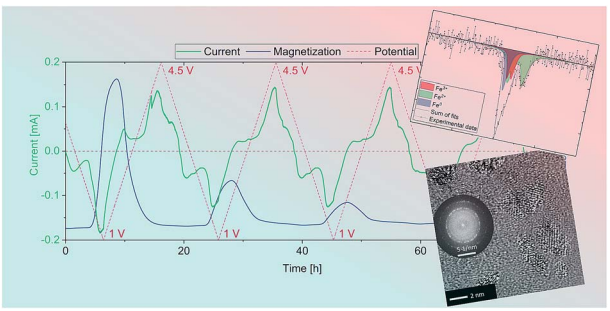

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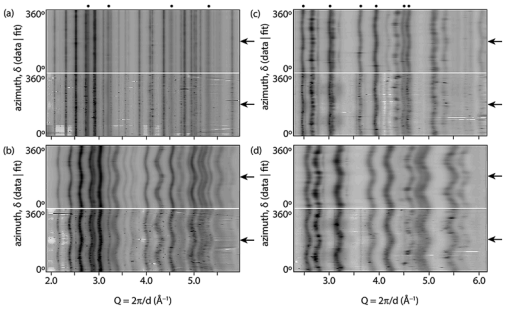

Lattice strain and texture analysis of superhard $Mo_{0.9}W_{1.1}BC$ and $ReWC_{0.8}$ *via* diamond anvil cell deformation

Marcus Parry, Samantha Couper, Aria Mansouri Tehrani, Anton O. Oliynyk, Jakoah Brgoch, Lowell Miyagi and Taylor D. Sparks*

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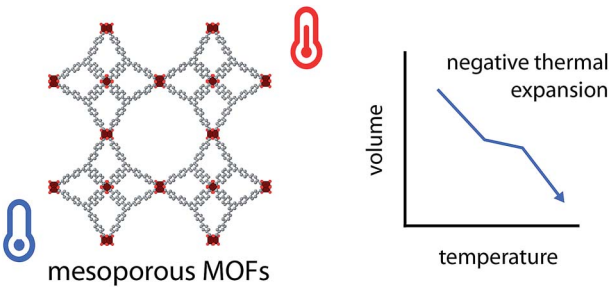

Assessing negative thermal expansion in mesoporous metal–organic frameworks by molecular simulation

Jack D. Evans,* Johannes P. Dürholt, Stefan Kaskel and Rochus Schmid

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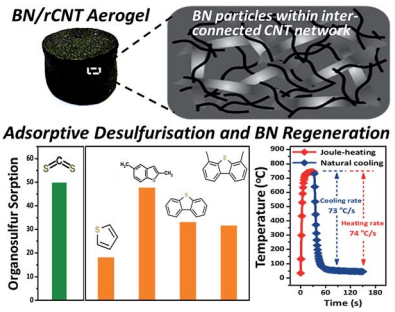

Boron-nitride/carbon-nanotube hybrid aerogels as multifunctional desulfurisation agents

Dong Xia, Heng Li, Peng Huang, Jamie Mannering, Umair Zafar, Daniel Baker and Robert Menzel*