

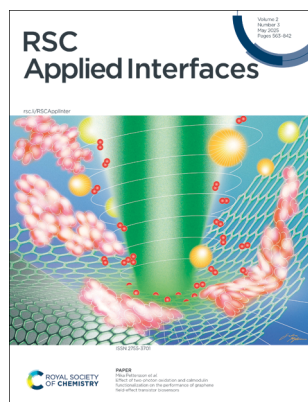
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IN THIS ISSUE

N/A CODEN RAISCD 2(3) 563–842 (2025)



Cover

See Mika Pettersson *et al.*, pp. 638–647.

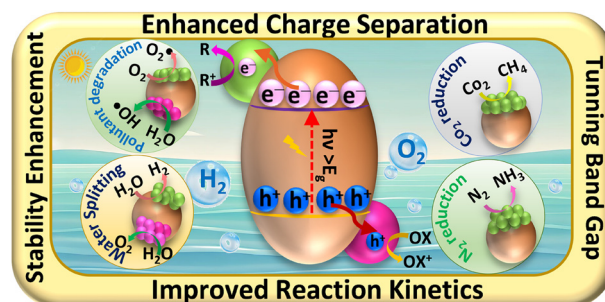
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REVIEW

573

Charge carrier dynamics in semiconductor–cocatalyst interfaces: influence on photocatalytic activities

Dipendu Sarkar, Jishu Pramanik, Soumita Samajdar, Maitrayee Biswas and Srabanti Ghosh*

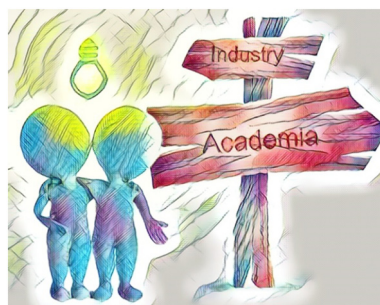


PERSPECTIVES

599

Heterojunction photocatalysts: where are they headed?

Hanggara Sudrajat* and Maya Nobatova*





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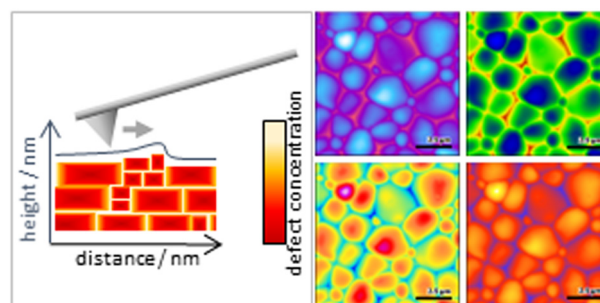


PERSPECTIVES

620

Promoting combined AFM-electrochemistry techniques for analysis of charge transport at grain boundaries of ceramic components in electrochemical cells

K. Neuhaus,* P. Mowe and M. Winter

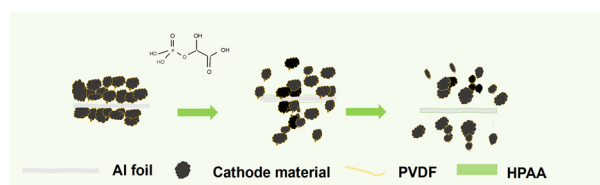


COMMUNICATION

634

Reaction-passivation-driven delamination of spent LiFePO_4 cathodes and their upgrading to highly efficient catalysts for hydrogen evolution

Jia Yi, Jinsong Hu,* Cheng Gong, Qilong Liu and Wentuan Bi*

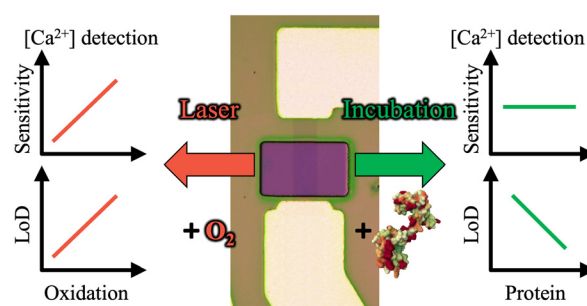


PAPERS

638

Effect of two-photon oxidation and calmodulin functionalization on the performance of graphene field-effect transistor biosensors

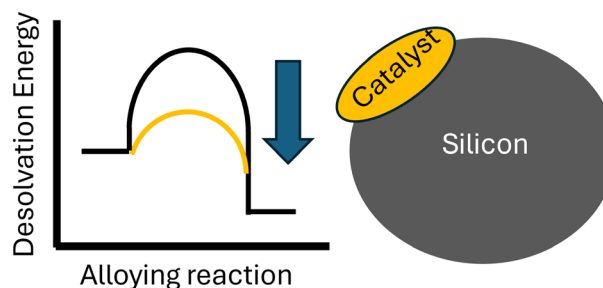
Aku Lampinen, Aleksei Emelianov, Erich See, Andreas Johansson and Mika Pettersson*



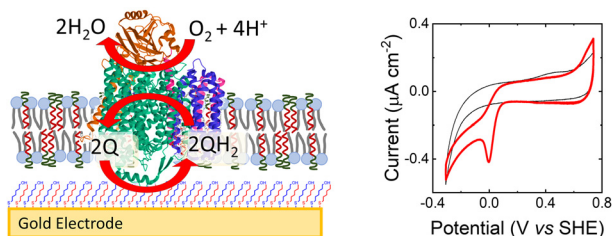
648

Metal decoration of Si particles via high-energy milling for lithium-ion battery anodes

Khryslyn G. Araño,* Beth L. Armstrong, Robert L. Sacci, Matthew S. Chambers, Chun-Sheng Jiang, Joseph Quinn, Harry M. Meyer III, Anton W. Tomich, Amanda Musgrove, Steven Lam, Elena Touns, Chongmin Wang, Christopher S. Johnson and Gabriel M. Veith*



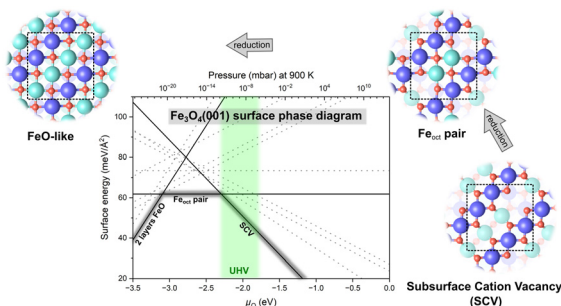
665



Solid-supported polymer–lipid hybrid membrane for bioelectrochemistry of a membrane redox enzyme

Rosa Catania, George R. Heath, Michael Rappolt, Stephen P. Muench, Paul A. Beales* and Lars J. C. Jeuken*

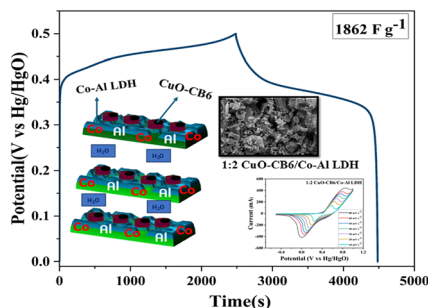
673



The surface phase diagram of Fe₃O₄(001) revisited

Panukorn Sombut, Matthias Meier, Moritz Eder, Thomas Angerler, Oscar Gamba, Michael Schmid, Ulrike Diebold, Cesare Franchini and Gareth S. Parkinson*

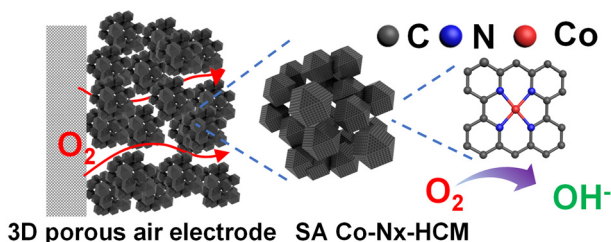
684



High-efficiency CuO-CB6/Co-Al LDH nanocomposite electrode for next-generation energy storage

Anakha D. R., Ashika K. M., Vyshnavi T. V., M. Ananthkumar and R. Yamuna*

696



Densely atomic Co–Nx moiety-coupled hierarchical-carbon-microspheres for efficient oxygen electrodes in bioadaptable Mg–air batteries

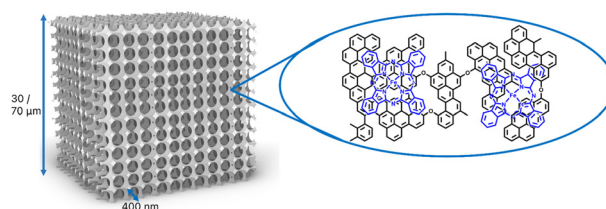
Yanru Liu, Taiqiang Dai, Jia Wang, Lirong Zheng and Xiaogang Fu*



704

Engineering macroporous carbon film supports for freestanding Fe–N–C cathodes at high current densities

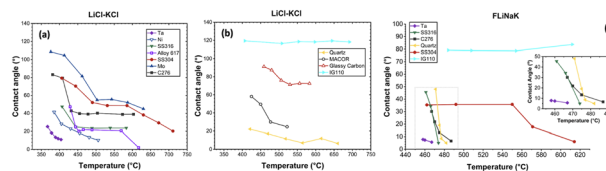
Simon Kellner, Mengnan Wang,* Ying Wang, Jesús Barrio, Guangmeimei Yang, Jingyu Feng, Sandrine E. M. Heutz, Ifan E. L. Stephens and Maria-Magdalena Titirici*



715

Wettability studies of LiCl–KCl and FLiNaK on metal and non-metal substrates

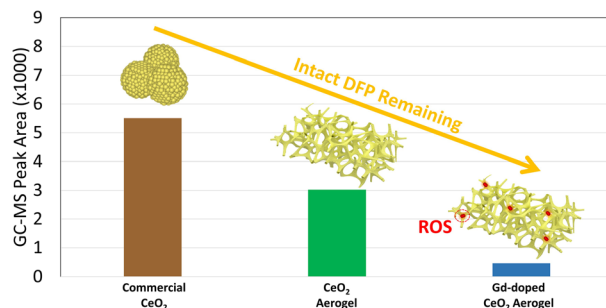
Qiufeng Yang,* Michael E. Woods and Ruchi Gakhar*



724

Degradation of chemical warfare simulants over CeO₂ and Gd-doped CeO₂ aerogels: divergent results of DMMP and DFP

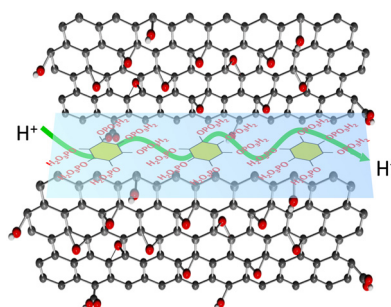
Travis G. Novak,* Janna Domenico, Alex Balboa, Wesley O. Gordon, Austin E. Herzog, Nam Q. Le, Evan R. Glaser, Paul A. DeSario and Debra R. Rolison



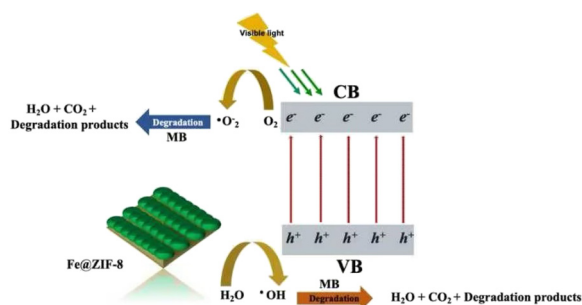
734

Enhanced proton conductivity from phytic acid-intercalated three-dimensional graphene oxide

Shakiba Salehpour, Lutfia Isna Ardhayanti, Yoshiharu Hidaka, Xinyao Liu, Tatsuki Tsugawa, Kazuto Hatakeyama, Md. Saidul Islam,* Yoshihiro Sekine, Shintaro Ida and Shinya Hayami*



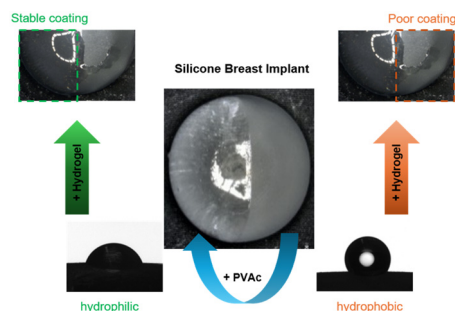
741



In situ thermal solvent-free synthesis of doped ZIF-8 as a highly efficient visible-light-driven photocatalyst

Farah Naz, Chun Hong Mak, Zhe Wang, Haihang Tong, Shella Permatasari Santoso,* Minshu Du, Ji-Jung Kai, Kuan-Chen Cheng, Chang-Wei Hsieh, Wenxin Niu, Zheng Hu and Hsien-Yi Hsu*

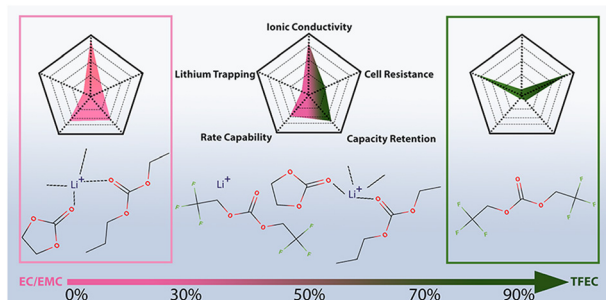
755



Enabling hydrogel coating on silicone breast implants with a poly(vinyl acetate) primer layer

Katrin Stanger, Dardan Bajrami, Peter Wahl, Fintan Moriarty, Emanuel Gautier, Alex Dommann and Kongchang Wei*

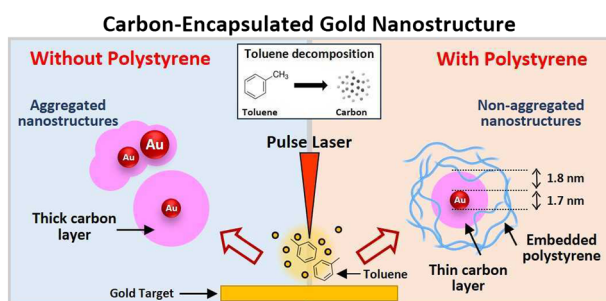
764



Influence of bis(2,2,2-trifluoroethyl) carbonate flame retarding co-solvent on interfacial chemistry in carbonate ester lithium-ion battery electrolytes

Mohammad Baghban Shemirani, Florian Gebert and Andrew J. Naylor*

772



Tailoring carbon-encapsulated gold nanoclusters via microchip laser ablation in polystyrene solution: controlling size, structure, and photoluminescent properties

Barana Sandakelum Hettiarachchi, Yumi Yakiyama* and Hidehiro Sakurai*

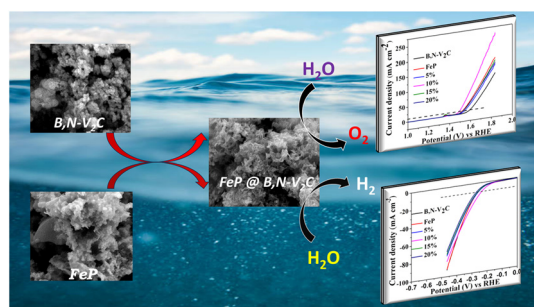


PAPERS

780

B,N co-doped V₂C nanoparticle embedded FeP nanoflake substrates as unique bifunctional electrocatalysts for overall water splitting in alkaline media

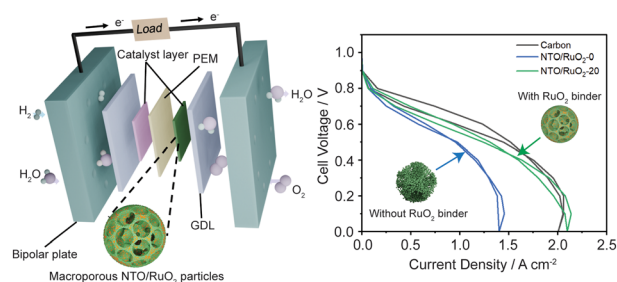
Dasari Sai Hemanth Kumar, Manzoor Ahmad Pandit, Vinay Kumar Kolakaluri and Krishnamurthi Muralidharan*



795

Conductive RuO₂ binders enhance mechanical stability of macroporous Nb-SnO₂ particles as cathode catalyst supports for high-performance PEFCs

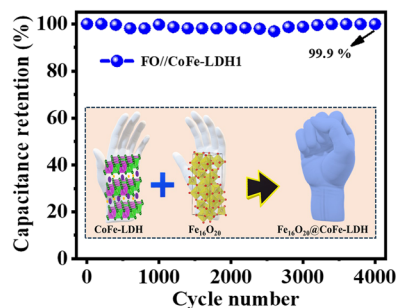
Thi Thanh Nguyen Ho, Tomoyuki Hirano,* Aoi Takano, Syu Miyasaka, Eishi Tanabe, Makoto Maeda, Eka Lutfi Septiani, Kiet Le Anh Cao and Takashi Ogi*



808

Iron oxide@CoFe-LDH nanocomposites for highly stable aqueous hybrid supercapacitors

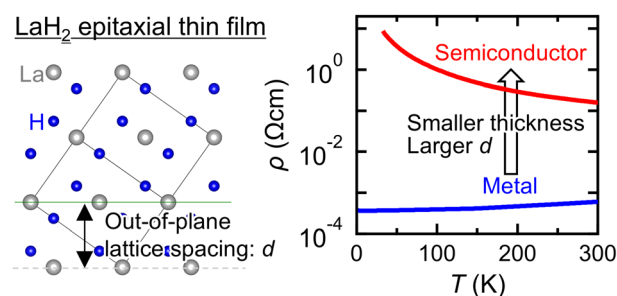
Harishchandra S. Nishad, Sagar M. Mane, Jaewoong Lee and Pravin S. Walke*



822

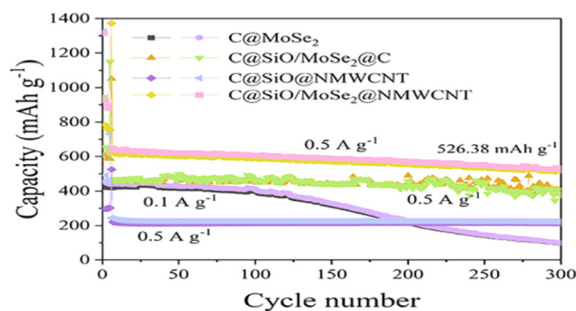
Thickness-induced metal-semiconductor transition in LaH₂ epitaxial thin films grown by reactive rf magnetron sputtering

Sumireno Uramoto, Hideyuki Kawasoko,* Satoru Miyazaki and Tomoteru Fukumura



PAPERS

827

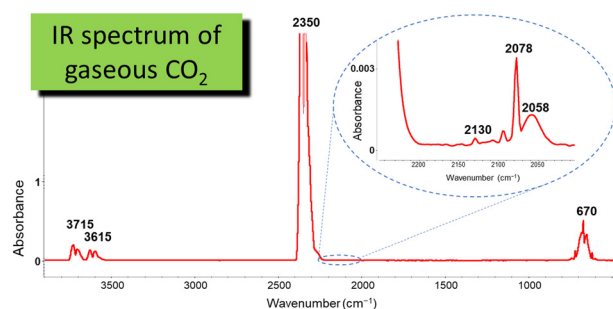


Strongly coupled C@SiO_x/MoSe₂@NMWCNT heterostructures as anodes for Na⁺ batteries with excellent stability and capacity

Mengru Bian, Yincui Yang, Youwen Chen,* Tiantian Wei, Wei Deng,* Biao Fu and Renhua Qiu*

COMMENTS

837



Comment on the “Reaction intermediates recognized by *in situ* FTIR spectroscopy in CO₂ hydrogenation over the Cu/ZnO/SPP-zeolite catalyst” by X. Liu *et al.*, *RSC Appl. Interfaces*, 2025, **2**, 114

Frederic C. Meunier

839

Reply to the ‘Comment on the “Reaction intermediates recognized by *in situ* FTIR spectroscopy in CO₂ hydrogenation over the Cu/ZnO/SPP-zeolite catalyst” by Comment author F. C. Meunier, *RSC Appl. Interfaces*, 2025, **2**, <https://doi.org/10.1039/D5LF00014A>

Xiaobo Yang, Xiaolong Liu, Guangying Fu,* Qiaolin Lang, Ruiqin Ding, Qiangsheng Guo, Ke Liang, Shuman Gao and Bing Yu*

