

Materials Advances

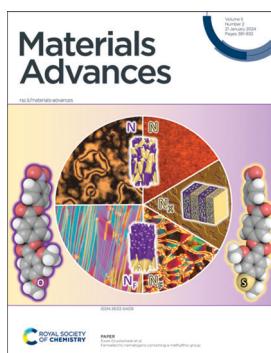
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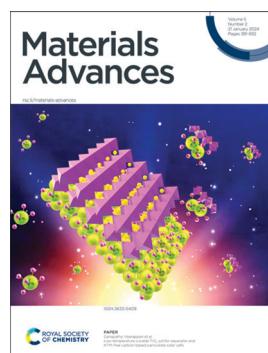
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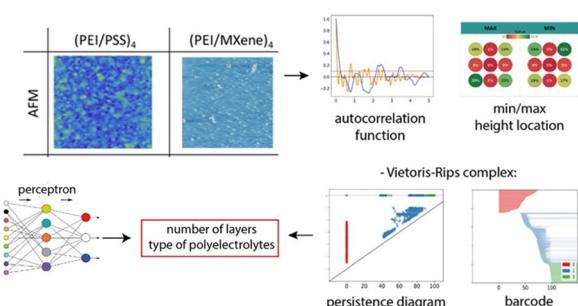
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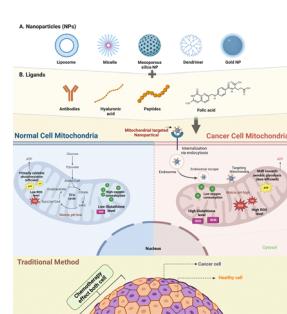
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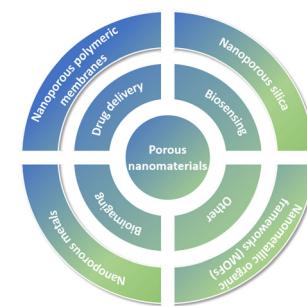
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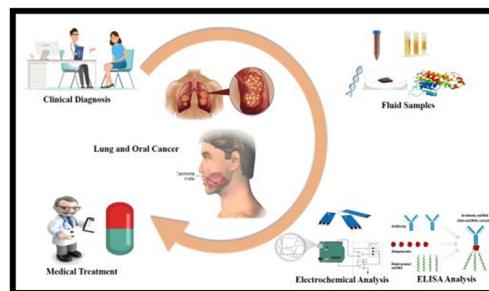
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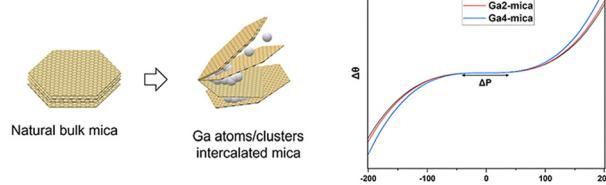


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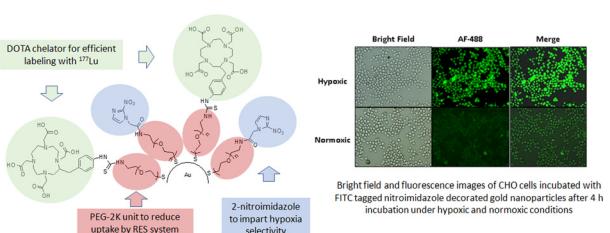
Mica nanosheets synthesized via liquid Ga embrittlement: demonstrating enhanced CO₂ capture

P. Vishakha T. Weerasinghe, Shunnian Wu, W.P. Cathie Lee, Qiang Zhu, Ming Lin and Ping Wu*



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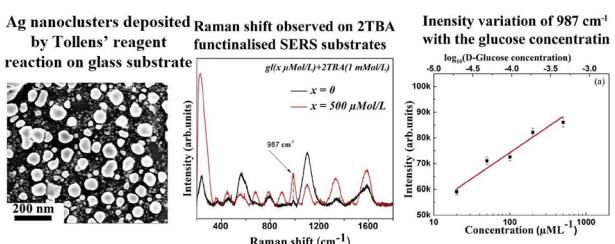
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Re-engineered theranostic gold nanoparticles for targeting tumor hypoxia

Sweety Mittal, Chandan Kumar, Madhava B. Mallia* and Haladhar Dev Sarma

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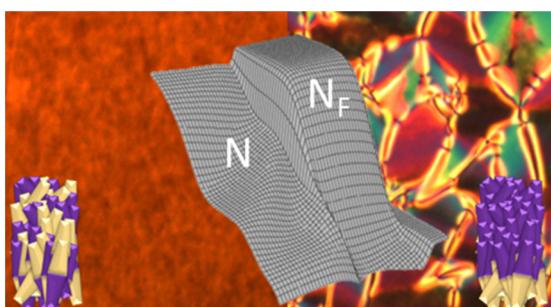


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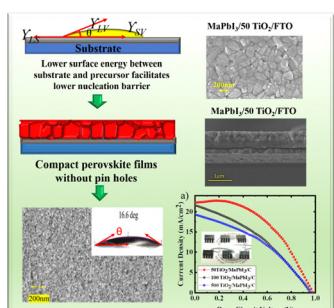
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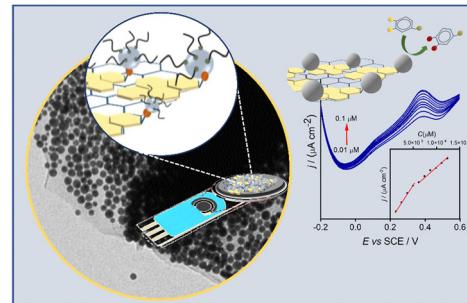


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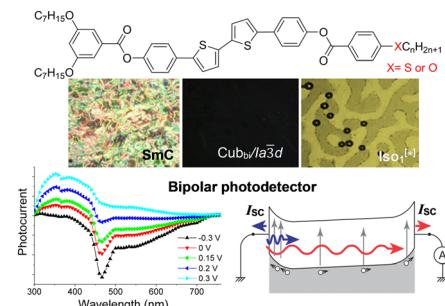
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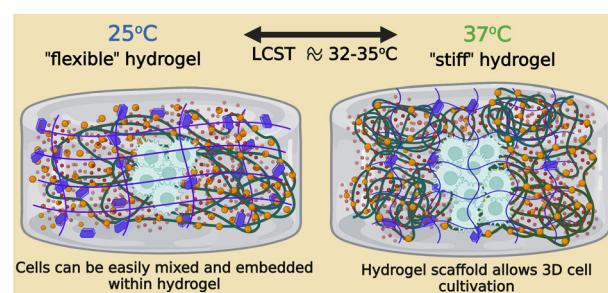
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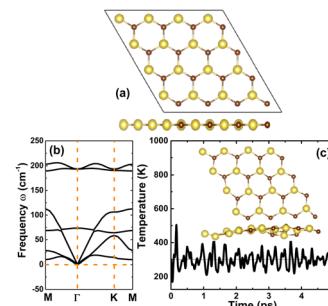
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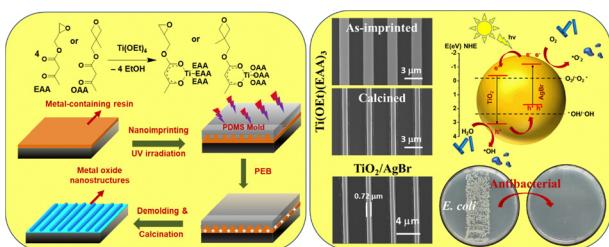
Effects of transition metals and earth alkaline metals in the ionic honeycomb monolayer sodium bromide towards spintronic applications

Vo Van On, J. Guerrero-Sánchez and D. M. Hoat*



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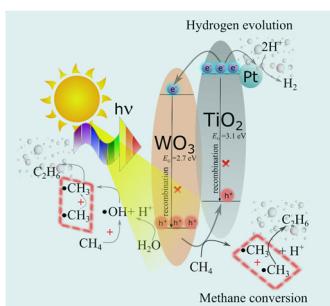
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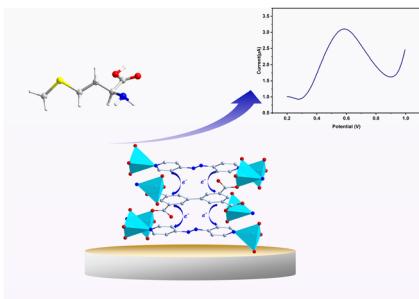
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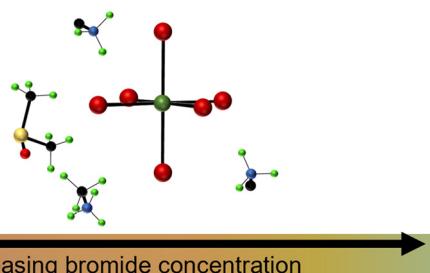
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An ancillary-ligand strategy for the improvement of electrochemical sensing towards S-containing amines with ultralow detection limits

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Samuel R. Pering,* Hunaynah Abdulgafar, Madeleine Mudd, Keith Yendall, Mustafa Togay and Mark R.J. Elsegood

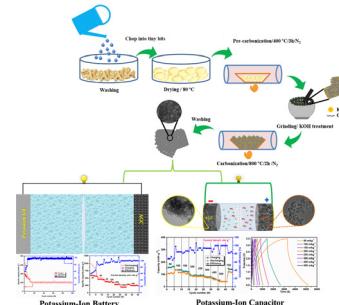


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Ginger-derived hierarchical porous carbon as an anode material for potassium-ion batteries and capacitors

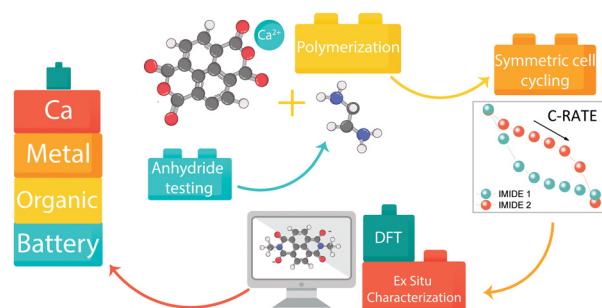
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Paving the way for future Ca metal batteries through comprehensive electrochemical testing of organic polymer cathodes

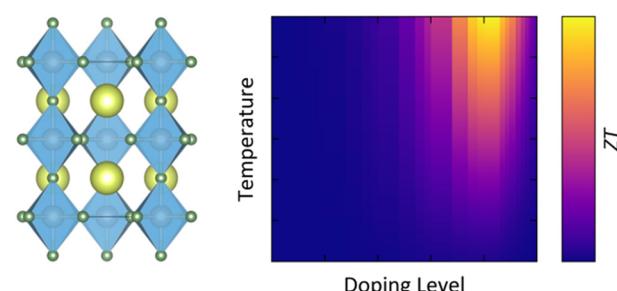
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First-principles modelling of the thermoelectric properties of n-type CaTiO_3 , SrTiO_3 and BaTiO_3

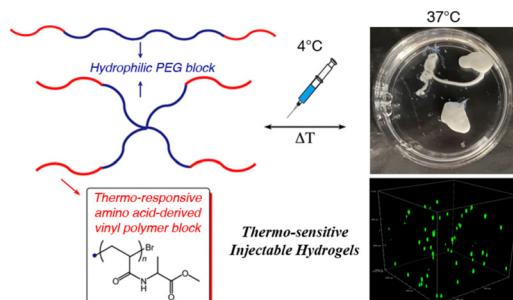
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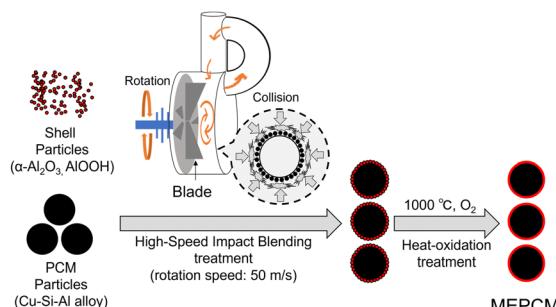
Thermo-responsive injectable hydrogels from linear and star-shaped block copolymers composed of amino acid-derived vinyl polymer and poly(ethylene glycol) for biomedical applications

Mitsuki Nakamura, Shin-nosuke Nishimura,* Nobuyuki Higashi and Tomoyuki Koga*



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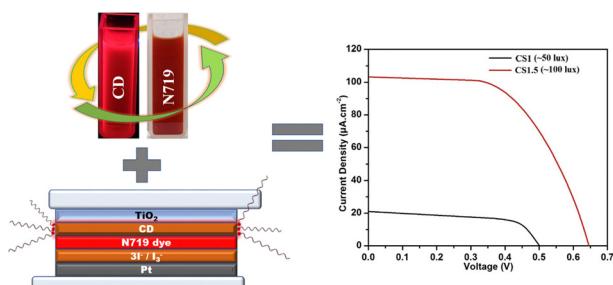
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High-temperature ternary Cu–Si–Al alloy as a core–shell microencapsulated phase change material: fabrication via dry synthesis method and its thermal stability mechanism

Masahiro Aoki, Melbert Jeem, Yuto Shimizu, Takahiro Kawaguchi, Minako Kondo, Tomokazu Nakamura, Chihiro Fushimi and Takahiro Nomura*

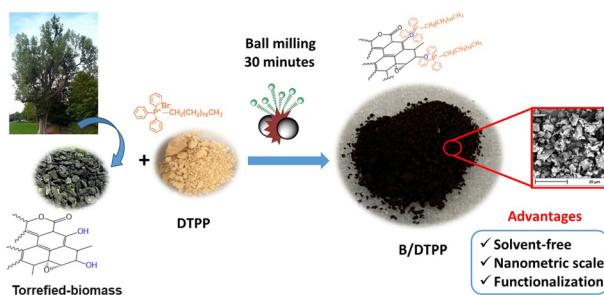
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Harnessing infrared radiation using carbon dots: photovoltaic devices achieving extraordinary efficiency under faint lighting

Karan Surana, Bhaskar Bhattacharya and Saurabh S. Soni*

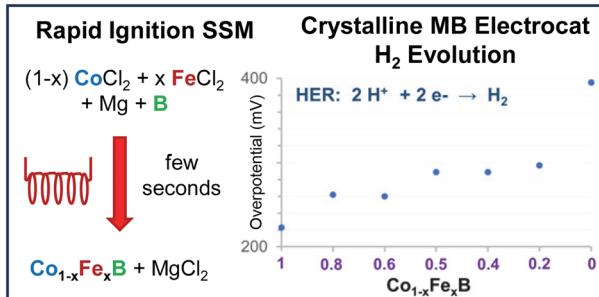
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Eco-friendly one-shot approach for producing a functionalized nano-torrefied biomass: a new application of ball milling technology

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Rapid solid-state metathesis reactions for the formation of cobalt–iron monoboride solid-solutions and investigation of their water splitting electrocatalytic activity

Janaka P. Abeysinghe and Edward G. Gillan*

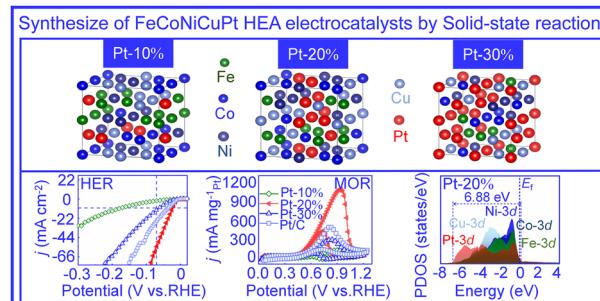


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Synthesis of FeCoNiCuPt high-entropy alloy nanoparticle electrocatalysts with various Pt contents by a solid-state reaction method

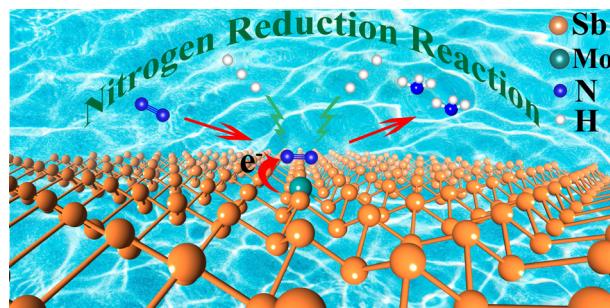
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Single transition atom-doped antimonene as a highly efficient electrocatalyst for the nitrogen reduction reaction: a DFT study

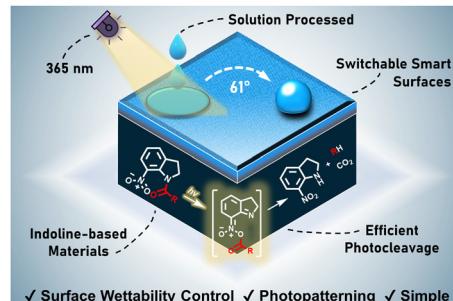
Xiaopeng Shen,* Chao Liu and Qinfang Zhang*



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Simple photocleavable indoline-based materials for surface wettability patterning

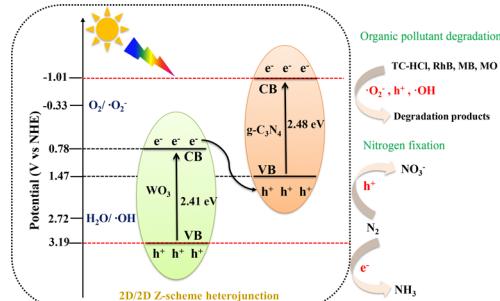
Alex S. Loch, Douglas Cameron, Robert W. Martin, Peter J. Skabara and Dave J. Adams*



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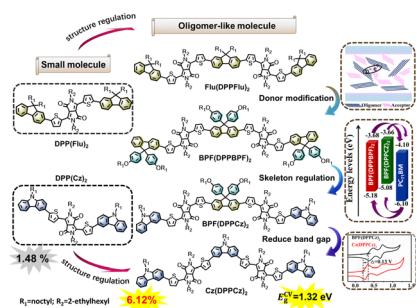
2D/2D Z-scheme $\text{WO}_3/\text{g-C}_3\text{N}_4$ heterojunctions for photocatalytic organic pollutant degradation and nitrogen fixation

Yasi Li and Junkai Wang*



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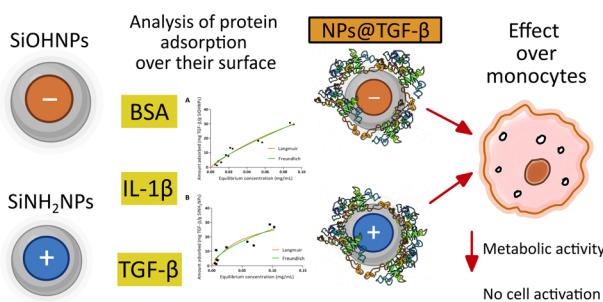
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DPP-bridged narrow band gap oligomer-like donor materials: significant effect of molecular structure regulation on photovoltaic performance

Chang Liu, Lunxiang Yin,* Yanli Guo, Bao Xie, Xu Wang and Yanqin Li*

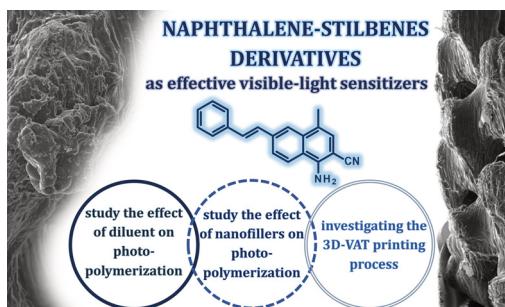
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Adsorption of immunomodulatory proteins over silica nanoparticles and the *in vitro* effect

Exequiel David Giorgi, Sofía Genovés, María Eugenia Díaz, Sofía Municoy, Martín Federico Desimone* and Mauricio César De Marzi*

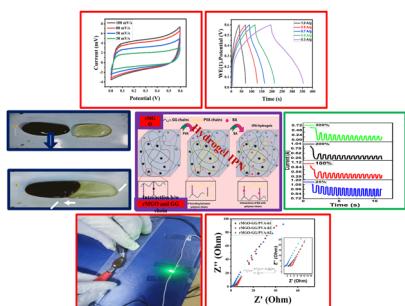
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Naphthalene-stilbenes as effective visible-light sensitizers to study the effect of diluent and nanofillers on *in situ* photopolymerization and 3D-VAT printing process

Wiktoria Tomal, Karolina Gałuszka, Petr Lepcio, Maciej Pilch, Anna Chachaj-Brekiesz, Martina Korčúšková and Joanna Ortyl*

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Multifunctional and self-healable conductive IPN hydrogels functionalized with reduced magnetite graphene oxide for an advanced flexible all in one solid-state supercapacitor

Tanzil ur Rehman, Luqman Ali Shah* and Mansoor Khan



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Topological data analysis enhanced prediction of hydrogen storage in metal–organic frameworks (MOFs)

Shivanshu Shekhar and Chandra Chowdhury*

