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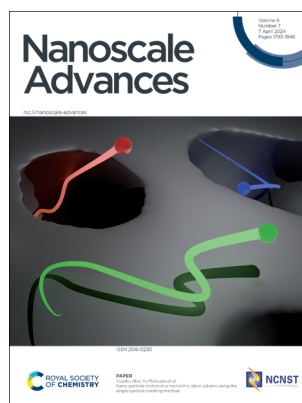
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Cover
See Devika S Manickam *et al.*, pp. 1853–1873. Image reproduced by permission of Devika S Manickam from *Nanoscale Adv.*, 2024, 6, 1853.



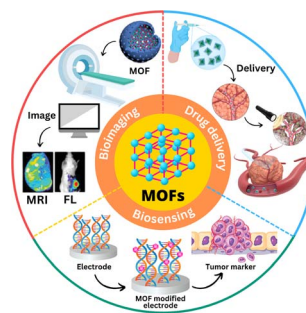
Inside cover
See Yusaku Abe, Yu Matsuda *et al.*, pp. 1874–1879. Image reproduced by permission of Yusaku Abe from *Nanoscale Adv.*, 2024, 6, 1874.

REVIEW

1800

Recent progress and challenges of MOF-based nanocomposites in bioimaging, biosensing and biocarriers for drug delivery

Ngoan Thi Thao Nguyen, Thuy Thi Thanh Nguyen, Shengbo Ge, Rock Keey Liew, Duyen Thi Cam Nguyen* and Thuan Van Tran*



MINIREVIEW

1822

Detailed discussion on the structure of alloy nanoparticles synthesized *via* magnetron sputter deposition onto liquid poly(ethylene glycol)

Mai Thanh Nguyen,* Pichaya Pattanasattayavong and Tetsu Yonezawa*



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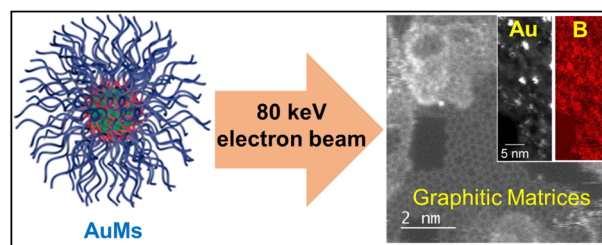
Fundamental questions
Elemental answers

COMMUNICATIONS

1837

Experimental and theoretical evidence for unprecedented strong interactions of gold atoms with boron on boron/sulfur-doped carbon surfaces

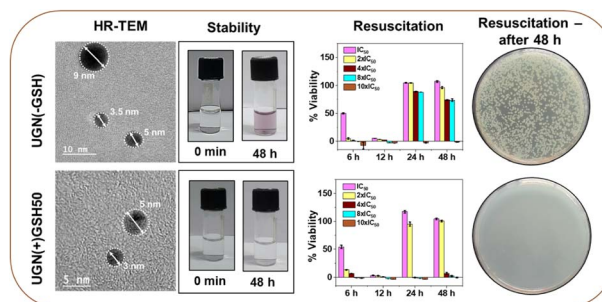
Samya Banerjee,* Juliusz A. Wolny,* Mohsen Danaie,* Nicolas P. E. Barry, Yisong Han, Houari Amari, Richard Beanland, Volker Schünemann and Peter J. Sadler*



1847

Overcoming microbial resuscitation using stable ultrafine gold nanosystems

Anindita Thakur, Pranay Amruth Maroju, Ramakrishnan Ganesan* and Jayati Ray Dutta*

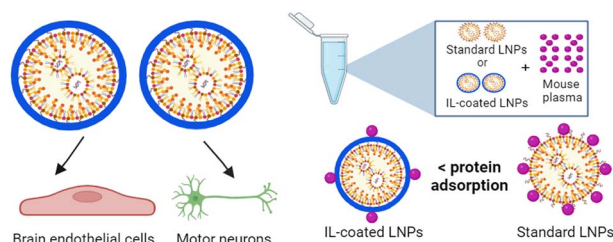


PAPERS

1853

Ionic liquid-coated lipid nanoparticles increase siRNA uptake into CNS targets

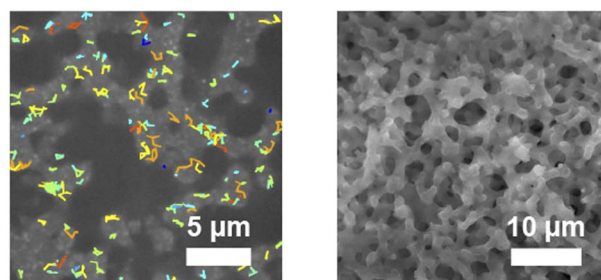
Purva Khare, Sara X. Edgecomb, Christine M. Hamadani, James F. Conway, Eden E. L. Tanner and Devika S Manickam*



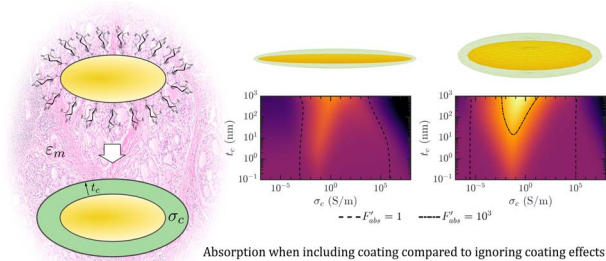
1874

Nano-particle motion in a monolithic silica column using the single-particle tracking method

Yusaku Abe,* Naoki Tomioka and Yu Matsuda*



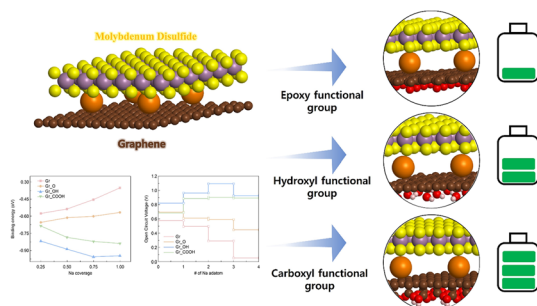
1880



Radiofrequency absorption of coated ellipsoidal gold nanoparticles in human tissue

Brage Bøe Svendsen,^{*} Olle Hennert, Robert Themptander and Mariana Dalarsson

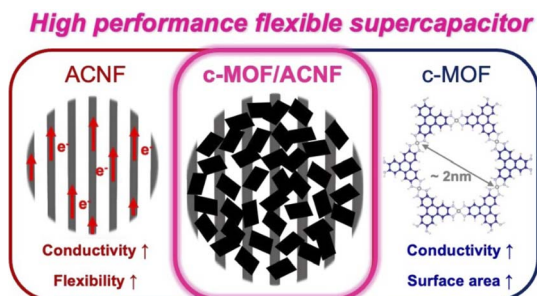
1892



First-principles evaluation of transition metal dichalcogenide-graphene pairs functionalized with oxygen-containing groups for sodium-ion battery anodes

Wonmyung Choi, Sung Jun Hong, Hoejeong Jeong and Byungchan Han^{*}

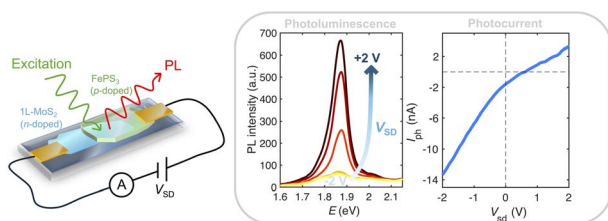
1900



Rational design of conductive metal-organic frameworks and aligned carbon nanofibers for enhancing the performance of flexible supercapacitors

Dongyeon Kim, Tae Gwang Yun, Ji Hyun Lee, Ki Ro Yoon^{*} and Kyunghoon Kim^{*}

1909



Tunable, multifunctional opto-electrical response in multilayer FePS₃/single-layer MoS₂ van der Waals p-n heterojunctions

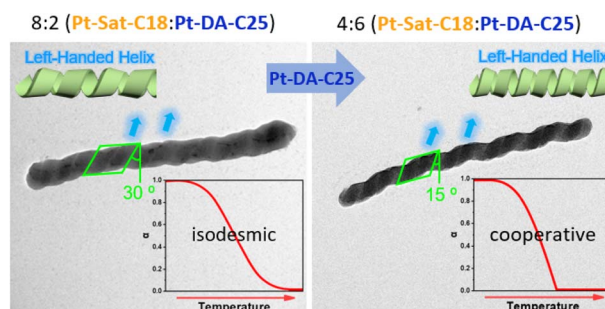
Maria Ramos, Marcos Gadea, Samuel Mañas-Valero, Carla Boix-Constant, Eudomar Henríquez-Guerra, María A. Díaz-García, Eugenio Coronado and M. Reyes Calvo^{*}



1917

Controlling supramolecular copolymerization of alkynylplatinum(II) terpyridine complexes: from isodesmic to cooperative mechanisms

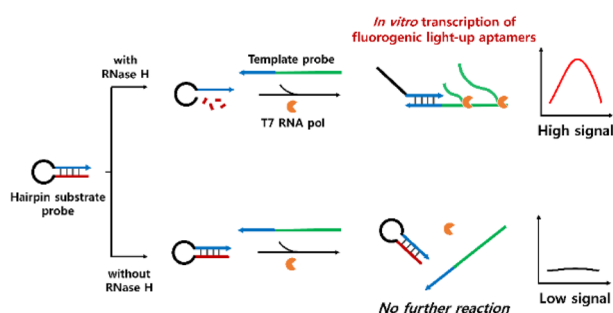
Sehee Kim, Minhye Kim, Seojeong Woo, Juyeong Kim, Sung Ho Jung* and Jong Hwa Jung*



1926

An ultrasensitive label-free RNase H assay based on *in vitro* transcription of fluorogenic light-up aptamer

Jinhwan Lee, Hansol Kim, Yan Li, Seoyoung Lee and Hyun Gyu Park*



1932

A new neodymium complex on renewable magnetic biochar nanoparticles as an environmentally friendly, recyclable and efficient nanocatalyst in the homoselective synthesis of tetrazoles

Bahman Tahmasbi,* Parisa Moradi and Mitra Darabi

