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See Shunya Sakane, Hideki Tanaka *et al.*, pp. 3299–3305. Image reproduced by permission of Shunya Sakane and Hideki Tanaka from *Nanoscale Adv.*, 2024, 6, 3299. Image created by Takashi Tsujino.



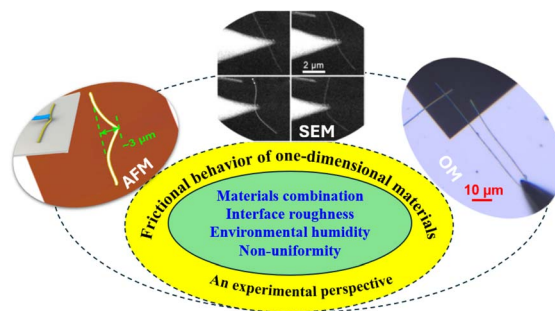
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Tursunay Yibibulla, Lizhen Hou,* James L. Mead, Han Huang, Sergej Fatikow and Shiliang Wang*

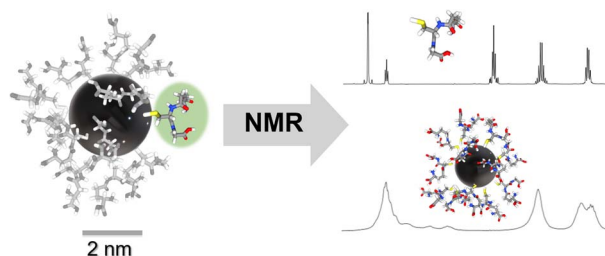


MINIREVIEW

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Possibilities and limitations of solution-state NMR spectroscopy to analyze the ligand shell of ultrasmall metal nanoparticles

Natalie Wolff, Christine Beuck, Torsten Schaller and Matthias Epple*



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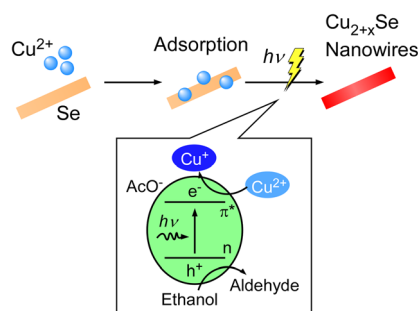
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Fundamental questions
Elemental answers

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Precise synthesis of copper selenide nanowires with tailored Cu vacancies through photo-induced reduction for thermoelectric applications

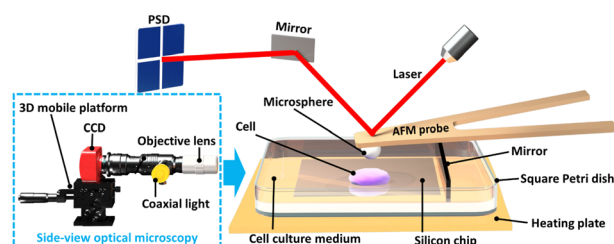
Shunya Sakane,* Tatsuki Miura, Kazuki Munakata, Yusuke Morikawa, Shunichiro Miwa, Riku Yamanaka, Toshiki Sugai, Akito Ayukawa, Haruhiko Udono and Hideki Tanaka*



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Side-view optical microscopy-assisted atomic force microscopy for thickness-dependent nanobiomechanics

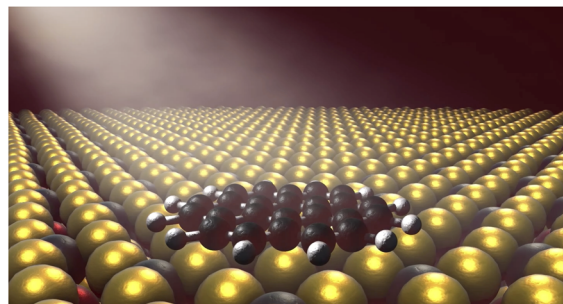
Yanqi Yang and Mi Li*



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Towards molecular controlled magnonics

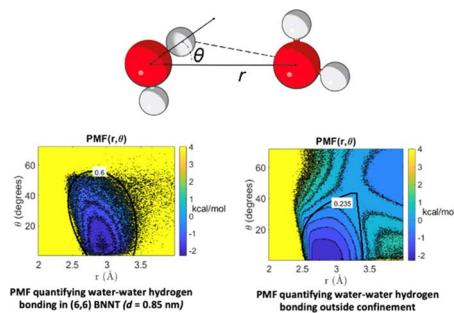
Alberto M. Ruiz, Gonzalo Rivero-Carracedo, Andrey Rybakov, Sourav Dey and José J. Baldovi*



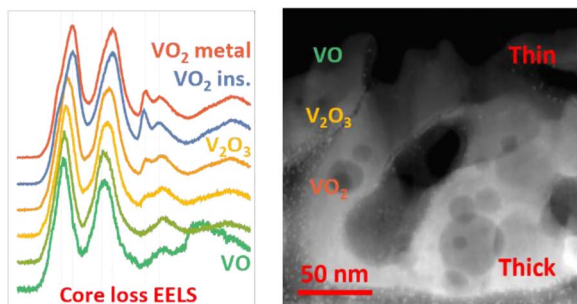
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Strength, number, and kinetics of hydrogen bonds for water confined inside boron nitride nanotubes

Bhargav Sai Chava and Siddhartha Das*



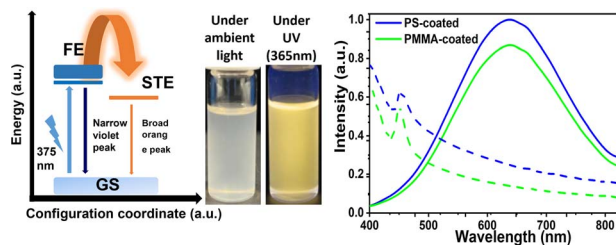
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Analytical electron microscopy analysis of insulating and metallic phases in nanostructured vanadium dioxide

Jan Krpenský, Michal Horák, Jiří Kabát, Jakub Planer, Peter Kepič, Vlastimil Křápek* and Andrea Konečná*

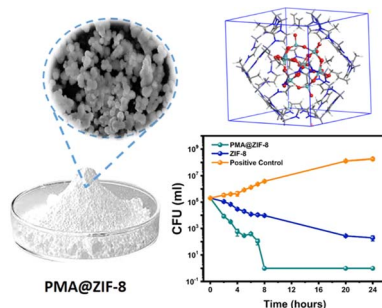
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Room temperature synthesis of nanocomposite thin films with embedded $\text{Cs}_2\text{AgIn}_{0.9}\text{Bi}_{0.1}\text{Cl}_6$ lead-free double perovskite nanocrystals with long-term water stability, wide range pH tolerance, and high quantum yield

Stevanson Bayer, Jason Ho Yin Yu and Stefan Nagl*

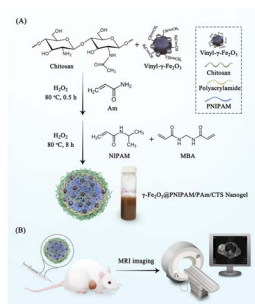
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Zeolitic imidazolate framework-8 encapsulated with Mo-based polyoxometalates as surfaces with antibacterial activity against *Escherichia coli*

Mariam M. Abdelkhalak, Aya M. Mohamed, Rehab Z. Abdallah, Ghada E. Khedr, Rania Siam and Nageh K. Allam*

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Enhancing MRI through high loading of superparamagnetic nanogels with high sensitivity to the tumor environment

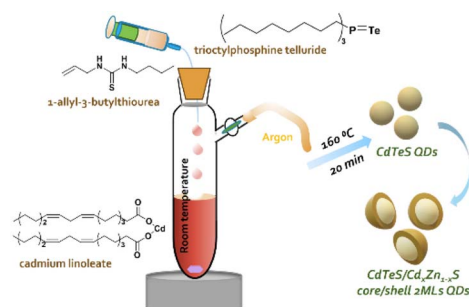
Jinfeng Liao, Liangyu Zhou, Yongzhi Wu, Zhiyong Qian and Pei Li*



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Disubstituted thiourea as a suitable sulfur source in the gram-scale synthesis of yellow- and red-emitting CdTeS/Cd_xZn_{1-x}S core/shell quantum dots

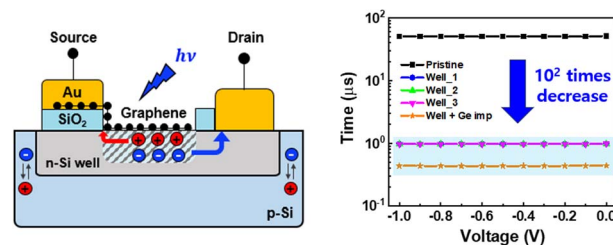
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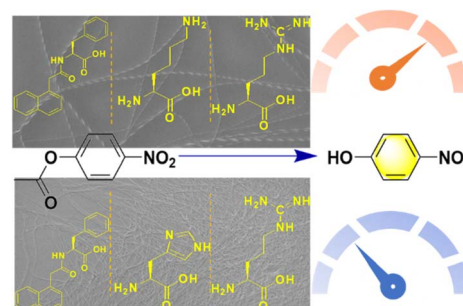
Min Gyu Kwon, Cihyun Kim, Seung-Mo Kim, Tae Jin Yoo, Yongsu Lee, Hyeon Jun Hwang, Sanghan Lee* and Byoung Hun Lee*



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1-Naphthylacetic acid appended amino acids-based hydrogels: probing of the supramolecular catalysis of ester hydrolysis reaction

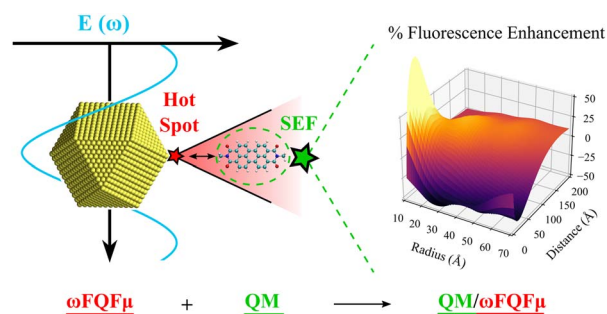
Ruchika Bassan, Biplab Mondal, Mayank Varshney and Subhasish Roy*



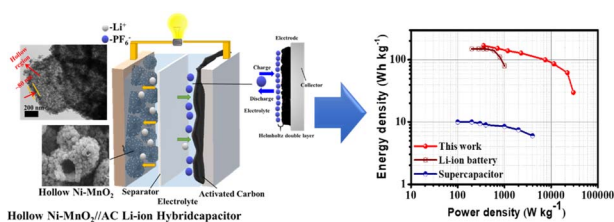
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Multiscale modeling of surface enhanced fluorescence

Pablo Grobas Illobre, Piero Lafiosca, Teresa Guidone, Francesco Mazza, Tommaso Giovannini* and Chiara Cappelli*



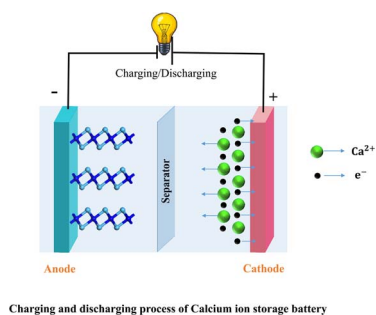
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Hierarchical hollow porous structures of nickel-doped λ - MnO_2 anodes for Li-ion energy storage systems

Venugopal Nulu, Arunakumari Nulu and Keun Yong Sohn*

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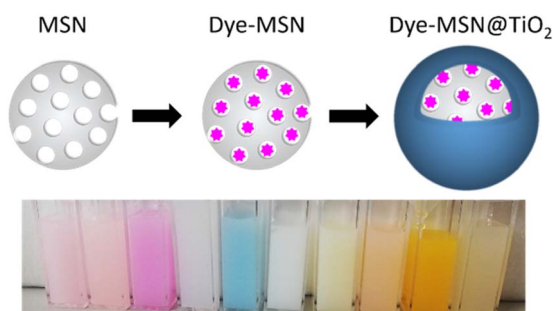


Charging and discharging process of Calcium ion storage battery

Recent advances in Zr and Hf-based MXenes and their hetero-structure as novel anode materials for Ca-ion batteries: theoretical insights from DFT approach

Tanvir Ahmed, Afiya Akter Piya and Siraj Ud Daula Shamim*

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Titania-mediated stabilization of fluorescent dye encapsulation in mesoporous silica nanoparticles

Laura Spitzmüller,* Jonathan Berson, Fabian Nitschke, Thomas Kohl and Thomas Schimmel

