Nanoscale Advances

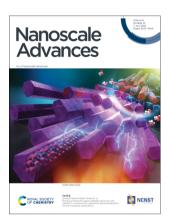
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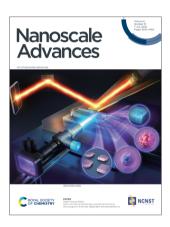
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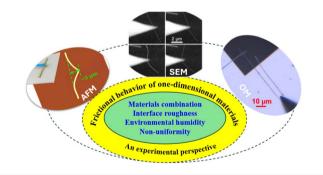
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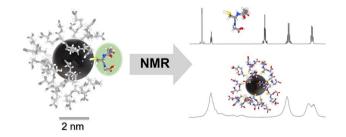


MINIREVIEW

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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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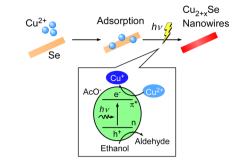
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Fundamental questions Elemental answers

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

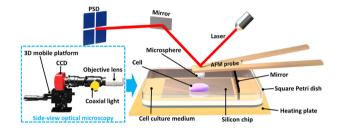
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Side-view optical microscopy-assisted atomic force microscopy for thickness-dependent nanobiomechanics

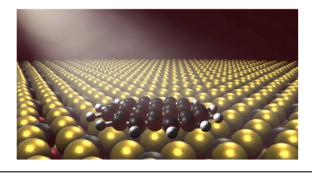
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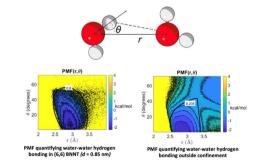
Alberto M. Ruiz, Gonzalo Rivero-Carracedo, Andrey Rybakov, Sourav Dey and José J. Baldoví*



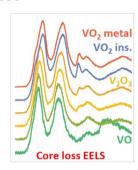
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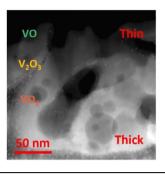
Strength, number, and kinetics of hydrogen bonds for water confined inside boron nitride nanotubes

Bhargav Sai Chava and Siddhartha Das*



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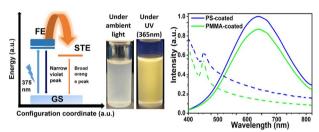




Analytical electron microscopy analysis of insulating and metallic phases in nanostructured vanadium dioxide

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

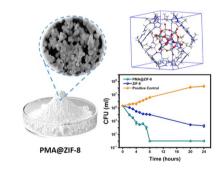
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Steevanson Bayer, Jason Ho Yin Yu and Stefan Nagl*

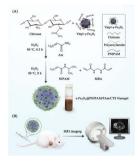
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Zeolitic imidazolate framework-8 encapsulated with Mo-based polyoxometalates as surfaces with antibacterial activity against Escherichia coli

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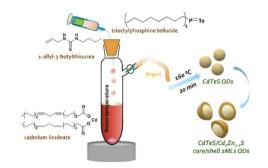
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Jinfeng Liao, Liangyu Zhou, Yongzhi Wu, Zhiyong Qian and Pei Li*

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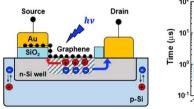
Liudmila Loghina,* Jakub Houdek, Stanislav Slang, Bozena Frumarova, Miroslav Cieslar and Miroslav Vlcek

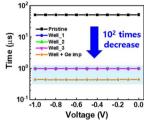


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Demonstration of a low power and high-speed graphene/silicon heterojunction near-infrared photodetector

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

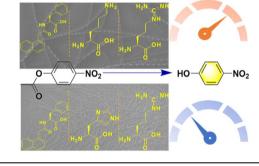




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1-Naphthylacetic acid appended amino acids-based hydrogels: probing of the supramolecular catalysis of ester hydrolysis reaction

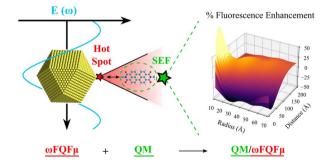
Ruchika Bassan, Biplab Mondal, Mayank Varshney and Subhasish Roy*



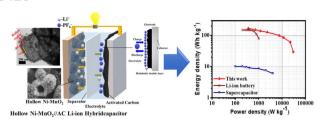
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Multiscale modeling of surface enhanced fluorescence

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



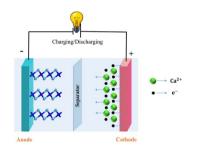
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Hierarchical hollow porous structures of nickel-doped $\lambda\text{-MnO}_2$ anodes for Li-ion energy storage systems

Venugopal Nulu, Arunakumari Nulu and Keun Yong Sohn*

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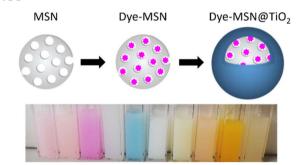


Charging and discharging process of Calcium ion storage battery

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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