

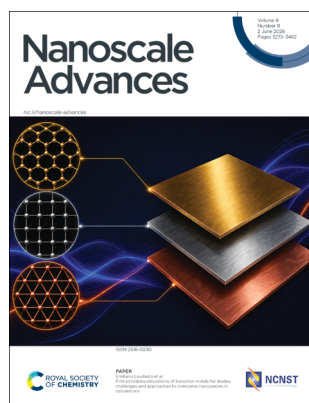
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Cover
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EDITORIAL

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Introduction to high throughput synthesis, characterisation and optimisation of nanomaterials

Philip D. Howes, Caterina Minelli, Michael R. Thomas and Catherine S. Hansel

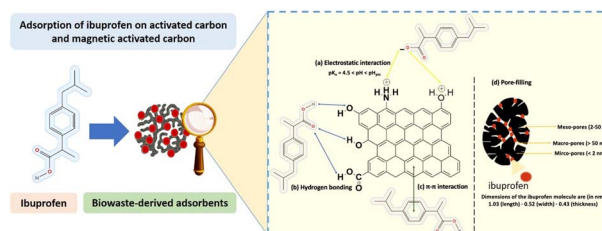


REVIEW

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Synthesis of activated carbons and nanoparticle-loaded activated carbons derived from bio-wastes for the removal of ibuprofen drug from water

Ngoc Dung Lai and Thuan Van Tran*



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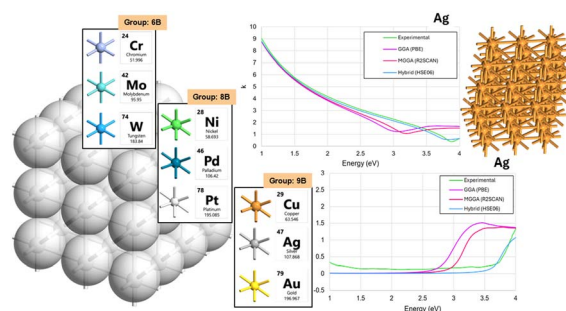
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Fundamental questions
Elemental answers

3310

First principles simulations of transition metals for diodes: challenges and approaches to overcome inaccuracies in calculations

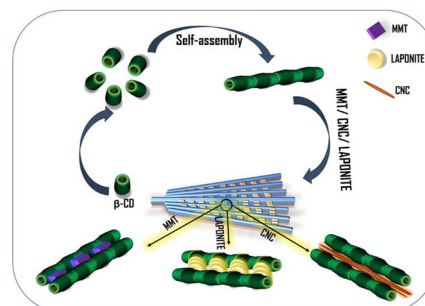
Marina Petroselli, Elaheh Mohebbi, Eleonora Pavoni, Pierluigi Stipa, Davide Mencarelli, Emiliano Laudadio* and Luca Pierantoni



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Engineering β -cyclodextrin gels with nanoparticles: tunable assembly and multifunctional applications

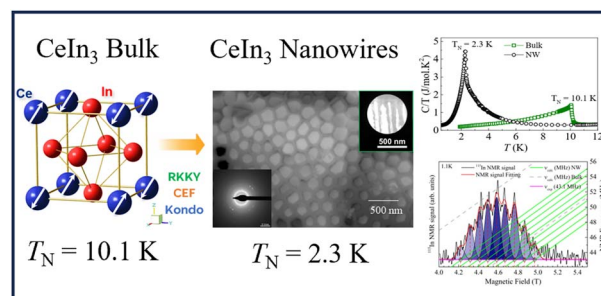
Sagar Kumar Pathak, Aiswarya Sukumaran, Ioanna Chazapi, Claire Hotton, Erwan Paineau and Ravi Kumar Pujala*



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Dramatic suppression of antiferromagnetic ordering in CeIn_3 nanowires

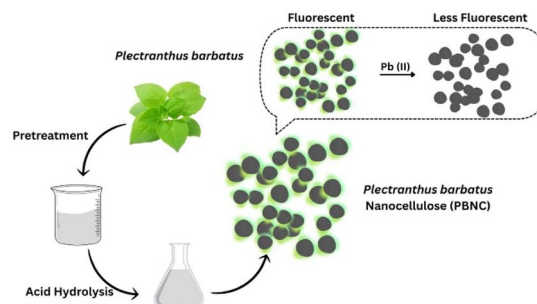
Maria H. Carvalho,* Davi Zau, Arnel P. Reyes, Rong Cong, Stephen D. House, Henrique B. Pizzi, Ana M. Caffer, Derick S. Passos, Rodolfo C. Santos, Gabriel S. Freitas, Kleber R. Pirota, Ricardo R. Urbano and Pascoal G. Pagliuso



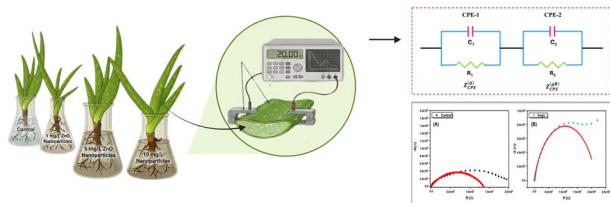
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Fluorescent nanocellulose derived from *Plectranthus barbatus* for the selective detection of Pb(II) ions in aqueous solutions

Joshua Jose,* Aishwarya Joji Mathew, Elizabeth Gabriel, Ancilin James and T. P. Vinod*



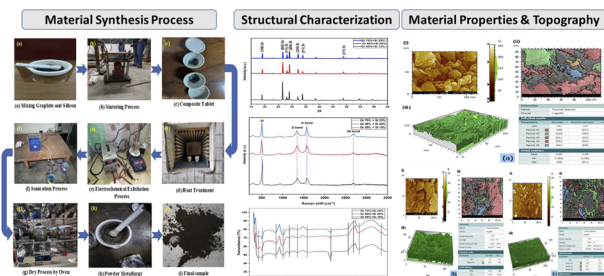
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ZnO nanoparticle induced electrical modulation and charge storage in *Aloe vera* leaves

Kajal Gautam,* Mohit Bhatt,* Archana Sagdeo and Anil Kumar Sinha*

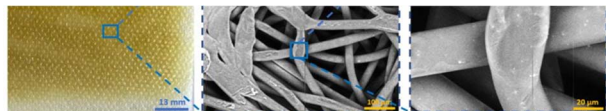
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A novel electrochemical exfoliation route to tailor the graphene bandgap through silicon incorporation: semi-metallic to semiconducting transition

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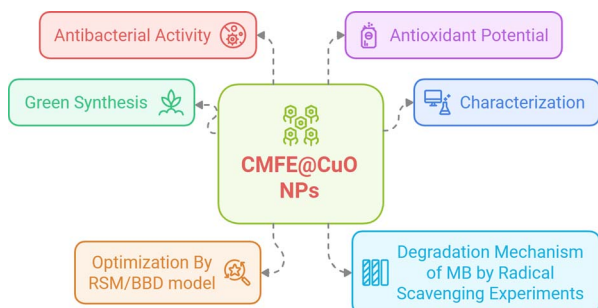
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Robust, conformal Cu₂O coatings on polypropylene fabrics *via* atmospheric-pressure spatial atomic layer deposition

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Green synthesis of cubic CuO nanoparticles for biomedical applications and the photodegradation of methylene blue: RSM-BBD optimization of the reaction parameters and stability studies

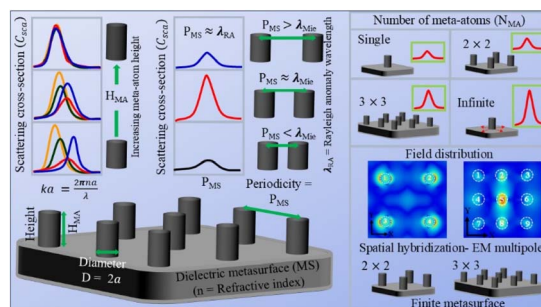
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A comprehensive design framework for all-dielectric metasurfaces by harnessing the interplay of controlled multiple multipole excitation, Rayleigh anomaly, Mie and lattice resonances

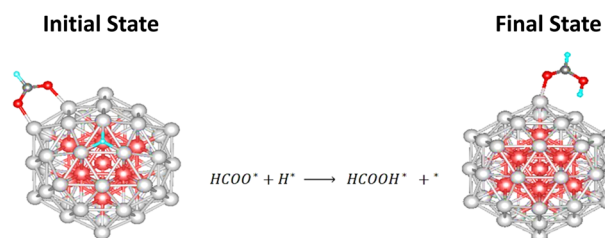
Tummaluru Khadar Basha, Faraz A. Inam and Junaid Masud Laskar*



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Selective CO₂ hydrogenation to formic acid on Cu₅₅ and Cu₁₃@Ni₄₂ nanoclusters: a DFT and artificial bee colony optimization study

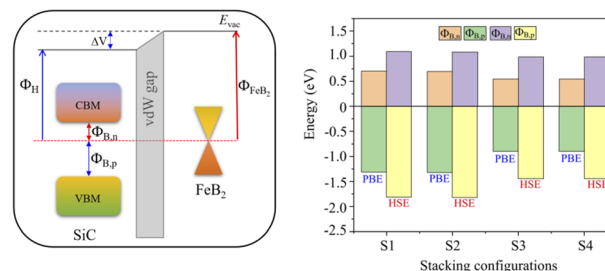
Norah O. Alotaibi, Shatha M. Alruwaythi and Heider A. Abdulhussein*



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Nguyen Q. Cuong, Le Phuong Long, Huynh V. Phuc* and Nguyen D. Hien



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Electric-field-driven magnetic domain wall dynamics: a multiferroic route toward scalable and low-power spintronic logic

Peng Zhang, Jinghang Weng, Zhiyi Sun, Chuncheng Wang, Shuaitong He, Jingjing Lu, Zi Qiang Qiu and Jeongmin Hong*

