

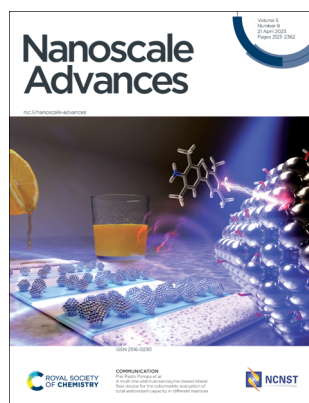
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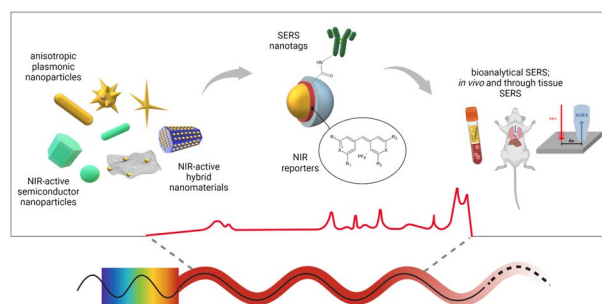
Inside cover
See John X. J. Zhang *et al.*, pp. 2180–2189. Image reproduced by permission of John X. J. Zhang from *Nanoscale Adv.*, 2023, 5, 2180.

REVIEW

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Challenges and opportunities for SERS in the infrared: materials and methods

Chiara Deriu,* Shaila Thakur, Olimpia Tamaro and Laura Fabris

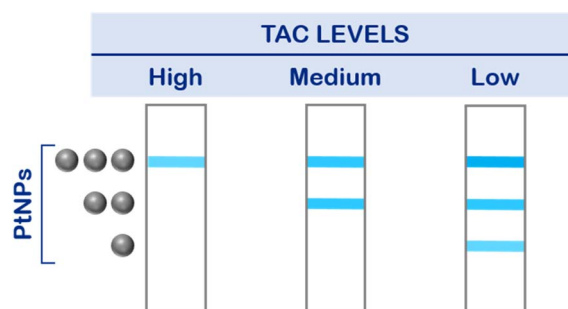


COMMUNICATIONS

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A multi-line platinum nanozyme-based lateral flow device for the colorimetric evaluation of total antioxidant capacity in different matrices

Anna Scarsi, Deborah Pedone and Pier Paolo Pompa*



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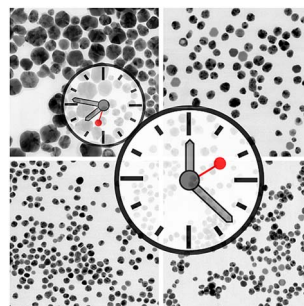


COMMUNICATIONS

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Time-domain Tollens reaction: synthesising silver nanoparticles with the formaldehyde clock

Ronny Kürsteiner, Maximilian Ritter, Alla Sologubenko, Laura Stricker and Guido Panzarasa*

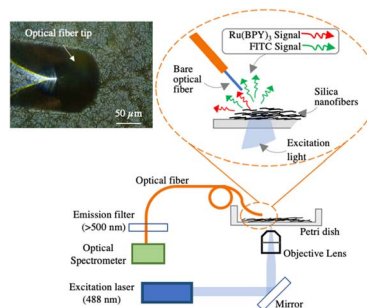


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Dual fluorescent hollow silica nanofibers for *in situ* pH monitoring using an optical fiber

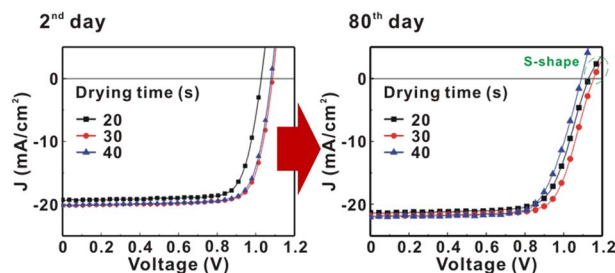
Junhu Zhou, Yundong Ren, Yuan Nie, Congran Jin, Jiyeon Park and John X. J. Zhang*



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Effects of drying time on the formation of merged and soft MAPbI₃ grains and their photovoltaic responses

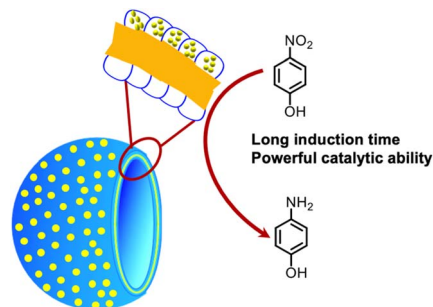
Anjali Chandel, Qi Bin Ke, Shou-En Chiang, Hsin-Ming Cheng* and Sheng Hsiung Chang*



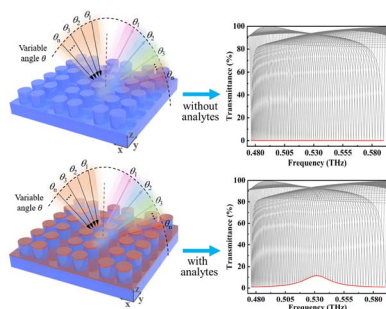
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Generation of sub-5 nm AuNPs in the special space of the loop-cluster corona of a polymer vesicle: preparation and its unique catalytic performance in the reduction of 4-nitrophenol

Wen-Li Wang, Ayaka Kanno, Amika Ishiguri and Ren-Hua Jin*



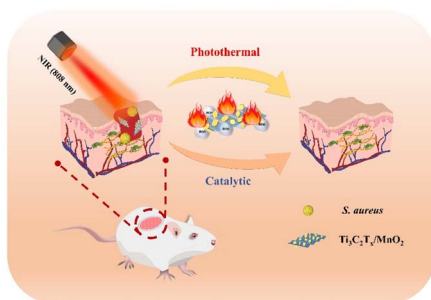
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A terahertz metasurface sensor with fingerprint enhancement in a wide spectrum band for thin film detection

Xuan Zhang, Jianjun Liu and Jianyuan Qin*

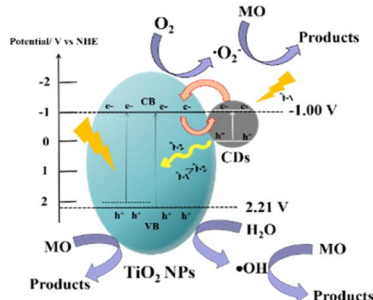
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Synthesis of $Ti_3C_2T_x/MnO_2$ composites for synergistic catalytic/photothermal-based bacterial inhibition

Ting Hu, Zhilong Xu, Peiying Zhang, Lei Fan,* Juqun Xi,* Jie Han and Rong Guo

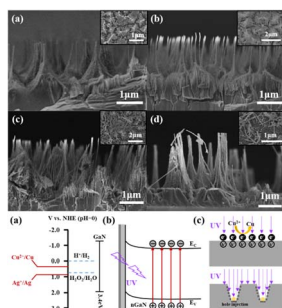
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Kilogram-scale fabrication of TiO_2 nanoparticles modified with carbon dots with enhanced visible-light photocatalytic activity

Jingjing Xu, Jiayan Zhang, Feifei Tao,* Pengfei Liang and Pingan Zhang

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GaN nanowires prepared by Cu-assisted photoelectron-chemical etching

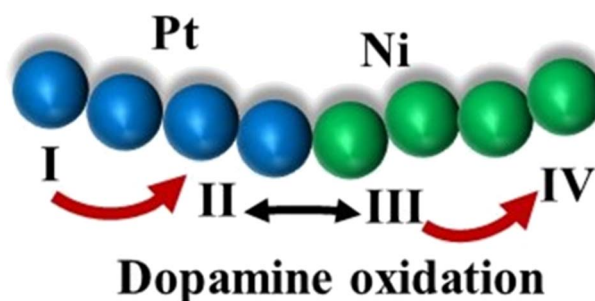
Qi Wang,* Wen Yang, Sheng Gao, Weizhong Chen, Xiaosheng Tang, Hongsheng Zhang, Bin Liu, Genquan Han and Yi Huang*



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Au–Pt–Ni nanochains as dopamine catalysts: role of elements and their spatial distribution

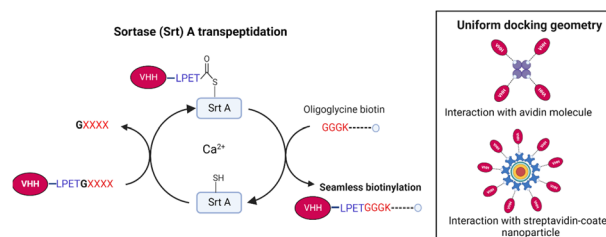
Hua Fan, William Le Boeuf and Vivek Maheshwari*



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Sortase A transpeptidation produces seamless, unbranched biotinylated nanobodies for multivalent and multifunctional applications

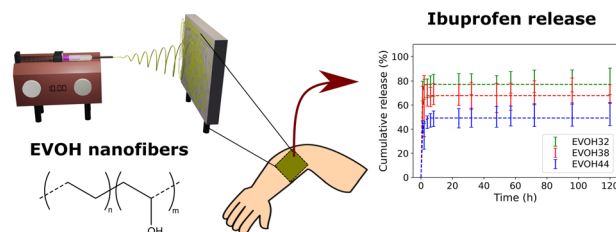
Eugene M. Obeng, David L. Steer, Alex J. Fulcher and Kylie M. Wagstaff*



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Ibuprofen-loaded electrospun poly(ethylene-co-vinyl alcohol) nanofibers for wound dressing applications

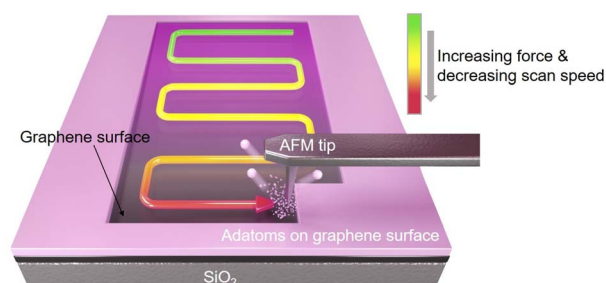
Jean Schoeller, Karin Wuertz-Kozak, Stephen J. Ferguson, Markus Rottmar, Jonathan Avaro, Yvonne Elbs-Glatz, Michael Chung and René M. Rossi*



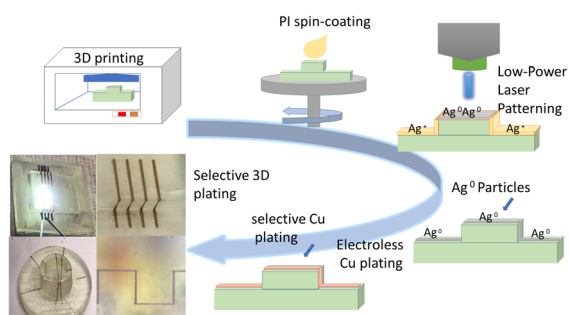
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Chemical gradients on graphene *via* direct mechanochemical cleavage of atoms from chemically functionalized graphene surfaces

Hyeonsu Kim, Dong-Hyun Kim, Yunjo Jeong, Dong-Su Lee, Jangyup Son* and Sangmin An*



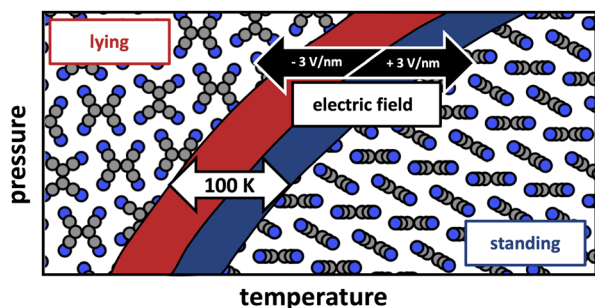
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Low-power laser manufacturing of copper tracks on 3D printed geometry using liquid polyimide coating

Mansour Abdulrhman, Adarsh Kaniyoor, Carmen M. Fernández-Posada, Pablo Acosta-Mora, Ian McLean, Nick Weston, Marc P. Y. Desmulliez and Jose Marques-Hueso*

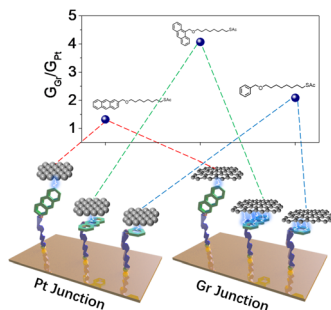
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Polymorphism mediated by electric fields: a first principles study on organic/inorganic interfaces

Johannes J. Cartus, Andreas Jeindl, Anna Werkovits, Lukas Hörmann and Oliver T. Hofmann*

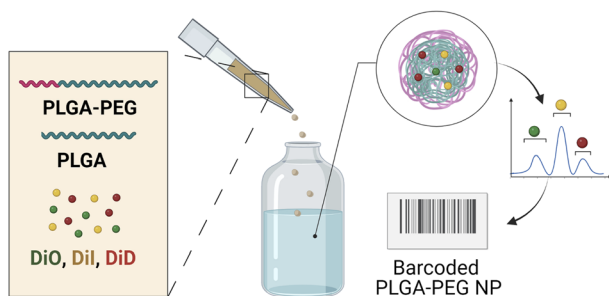
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Planar aromatic anchors control the electrical conductance of gold|molecule|graphene junctions

Luke J. O'Driscoll, Michael Jay, Benjamin J. Robinson, Hatem Sadeghi, Xintai Wang, Becky Penhale-Jones, Martin R. Bryce* and Colin J. Lambert*

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Identification of fluorescently-barcoded nanoparticles using machine learning

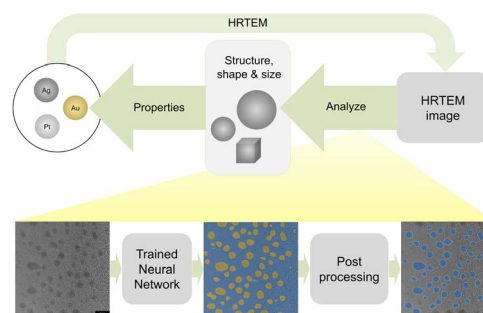
Ana Ortiz-Perez, Cristina Izquierdo-Lozano, Rens Meijers, Francesca Grisoni and Lorenzo Albertazzi*



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Automated analysis of transmission electron micrographs of metallic nanoparticles by machine learning

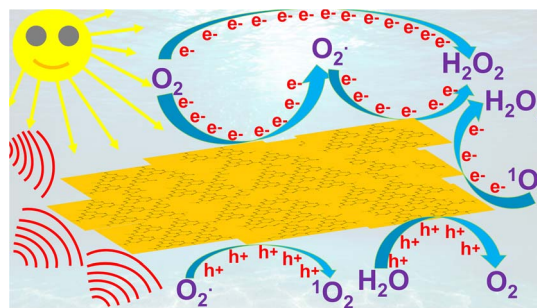
Nina Gumbiowski, Kateryna Loza, Marc Heggen and Matthias Eppe^{*}



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Revisiting the roles of dopants in g-C₃N₄ nanostructures for piezo-photocatalytic production of H₂O₂: a case study of selenium and sulfur

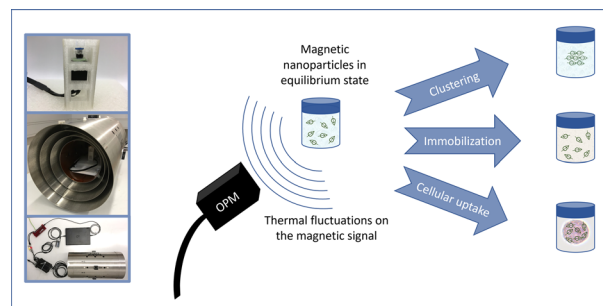
Dat Do Tran, Hoai-Thanh Vuong, Duc-Viet Nguyen, Pho Phuong Ly, Pham Duc Minh Phan, Vu Hoang Khoi, Phong Thanh Mai and Nguyen Huu Hieu^{*}



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Monitoring magnetic nanoparticle clustering and immobilization with thermal noise magnetometry using optically pumped magnetometers

Katrijn Everaert,^{*} Tilmann Sander, Rainer Körber, Norbert Löwa, Bartel Van Waeyenberge, Jonathan Leliaert and Frank Wiekhorst



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Exploring the untapped catalytic application of a ZnO/CuI/PPy nanocomposite for the green synthesis of biologically active 2,4,5-trisubstituted imidazole scaffolds

Sahil Kohli, Nisha, Garima Rathee, Sunita Hooda^{*} and Ramesh Chandra^{*}

