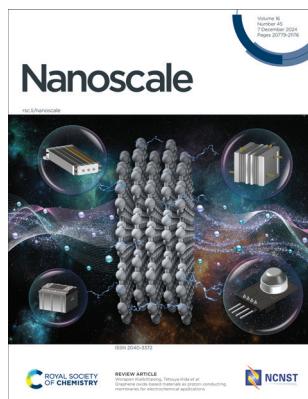


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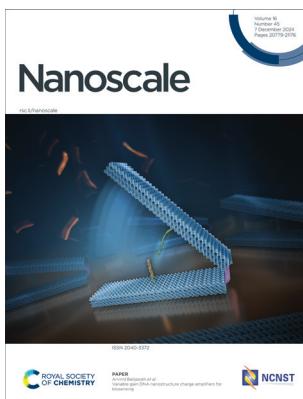
ISSN 2040-3372 CODEN NANOHL 16(45) 20779–21176 (2024)



### Cover

See Worapon Kiatkittipong, Tetsuya Kida et al., pp. 20791–20810.

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### Inside cover

See Arvind Balijepalli et al., pp. 20893–20902.

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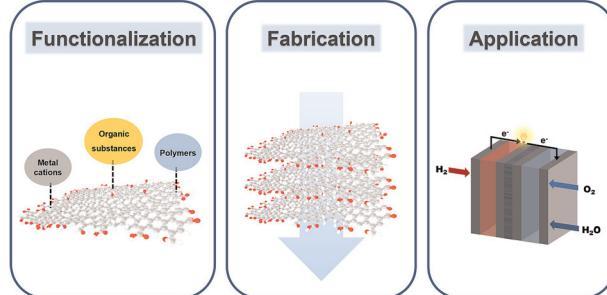
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20791

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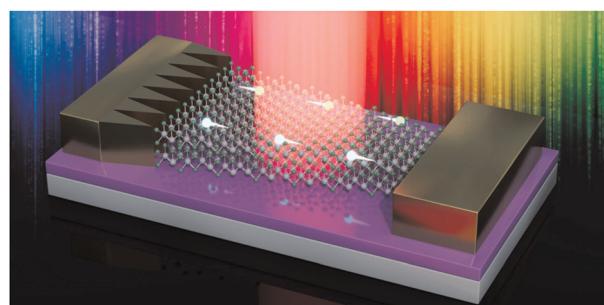
Itthipon Moonnee, Muhammad Sohail Ahmad, Yusuke Inomata, Worapon Kiatkittipong\* and Tetsuya Kida\*



20811

### New paradigms of 2D layered material self-driven photodetectors

Xinyi Guan, Yu Chen, Yuhang Ma, Huanrong Liang, Zhaoqiang Zheng, Churong Ma, Chun Du, Jiandong Yao\* and Guowei Yang



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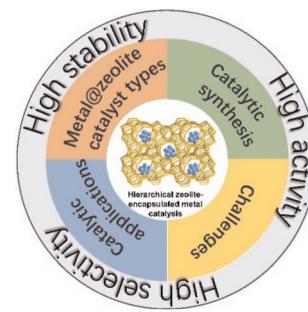
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20842

**Hierarchical zeolite-encapsulated metal nanoparticles for heterogeneous catalysis**

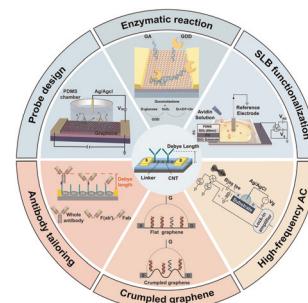
Xingxu Liu, Shufang Zhao, Wenjie Yang and Jun Huang\*



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**Overcoming Debye screening effect in field-effect transistors for enhanced biomarker detection sensitivity**

Qi Meng, Huimin Li, Weilong Zhao, Ming Song, Wenhong Zhang, Xinyu Li, Jun Chen\* and Li Wang\*

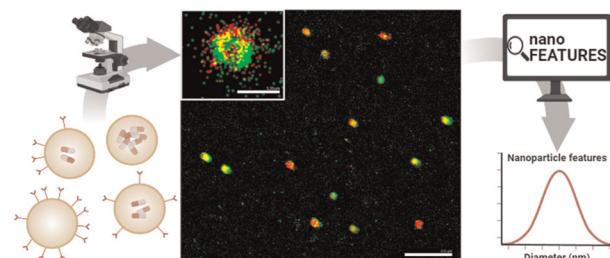


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**nanoFeatures: a cross-platform application to characterize nanoparticles from super-resolution microscopy images**

Cristina Izquierdo-Lozano, Niels van Noort, Stijn van Veen, Marrit M. E. Tholen, Francesca Grisoni\* and Lorenzo Albertazzi\*

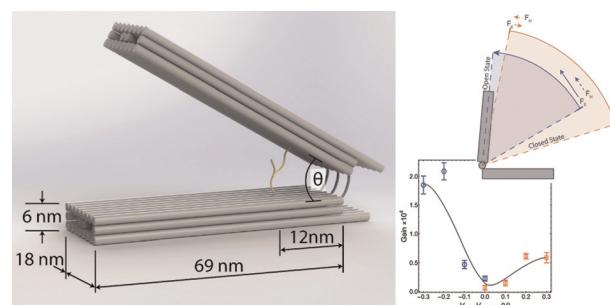


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20893

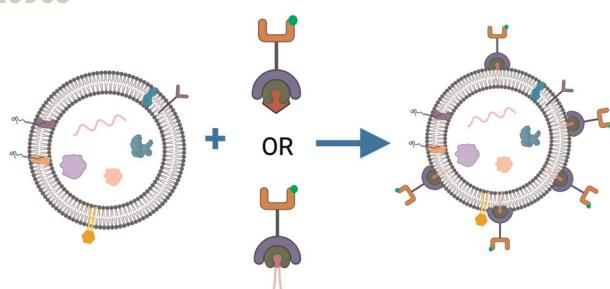
**Variable gain DNA nanostructure charge amplifiers for biosensing**

Jacob M. Majikes, Seulki Cho, Thomas E. Cleveland, IV, J. Alexander Liddle and Arvind Balijepalli\*



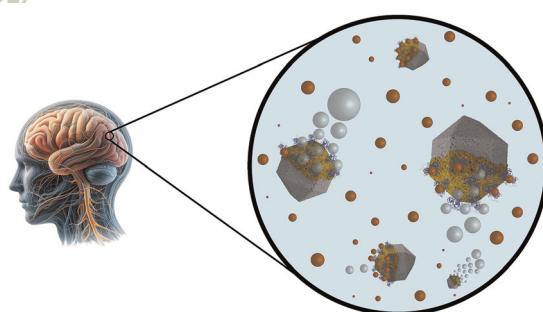
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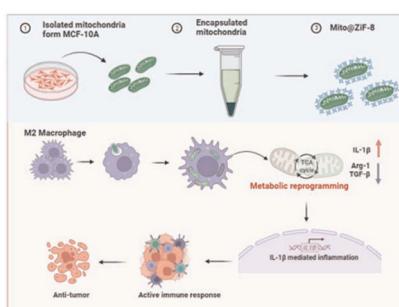
Leora Goldbloom-Helzner, Harjn Bains, Emma G. Loll, Tanner Henson, Rachel R. Mizenko, Priyadarsini Kumar, Cheemeng Tan, Diana L. Farmer, Randy P. Carney and Aijun Wang\*

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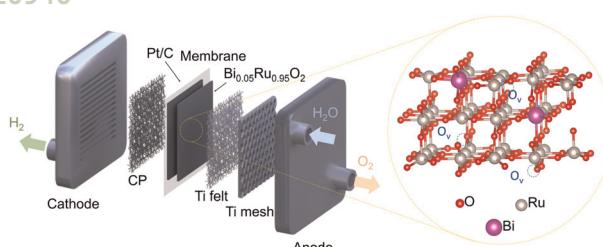
J. Bujalance-Fernández, E. Carro, B. Jurado-Sánchez\* and A. Escarpa\*

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**Encapsulated mitochondria to reprogram the metabolism of M2-type macrophages for anti-tumor therapy**

Yonghui Wang, Chang Liu, Xiaodong Ma, Anne Filppula, Youbin Cui, Jiangbin Ye\* and Hongbo Zhang\*

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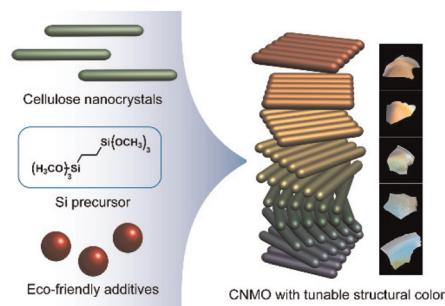
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Shiying Chen, Hai Liu, Bichen Yuan, Wenhui Xu, Aiqing Cao, Marshet Getaye Sendeku, Yaping Li,\* Xiaoming Sun\* and Fengmei Wang\*

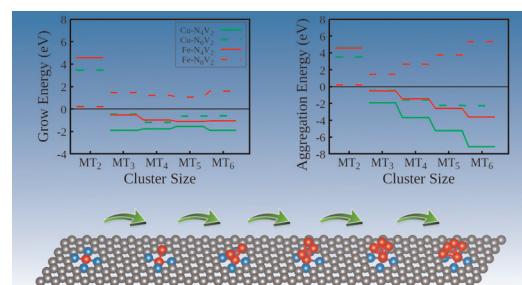


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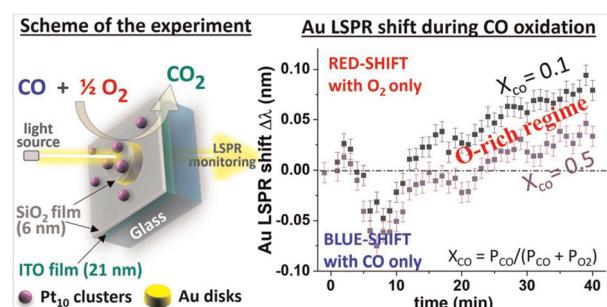
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**Controlling the optical properties of chiral nematic mesoporous organosilica films with bioadditives**Joanna K. Szymkowiak, Lucas J. Andrew,  
Wadood Y. Hamad and Mark J. MacLachlan\*

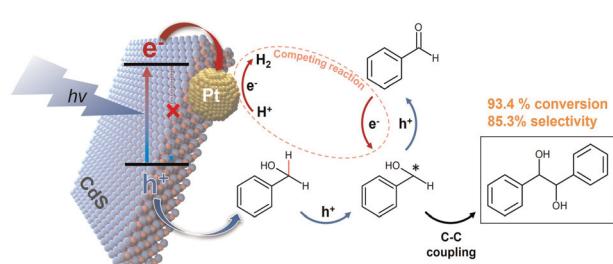
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**Exploring nitrogen-mediated effects on Fe and Cu cluster development in graphene: a DFT study**L. A. Alvarado-Leal,\* J. I. Paez-Ornelas,  
M. A. Ruiz-Robles, J. Guerrero-Sánchez,  
J. M. Romo-Herrera,\* H. N. Fernández-Escamilla,  
Noboru Takeuchi and E. G. Perez-Tijerina

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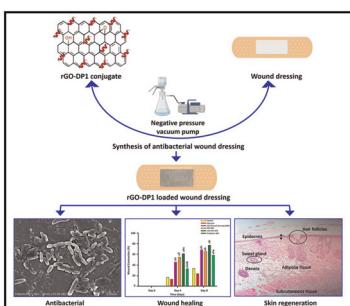
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Claude R. Henry

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**Selective photocatalytic C–C coupling of benzyl alcohol into hydrobenzoin using Pt-deposited CdS nanosheets passivated with cysteamine**Pan Lu, Gui-Min Kim, Nianfang Wang,  
Joongjai Panpranot, Whi Dong Kim\* and Doh C. Lee\*

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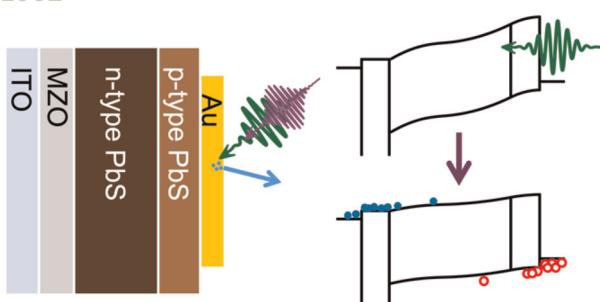
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## Development of a two-dimensional peptide functionalized-reduced graphene oxide biomaterial for wound care applications

Shubhi Joshi, Panchali Barman, Mayank Maan, Hemant Goyal, Sheetal Sharma, Rajesh Kumar, Gaurav Verma and Avneet Saini\*

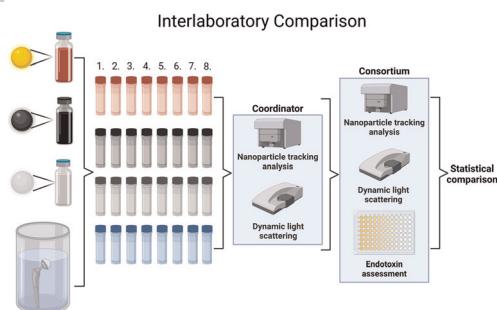
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Tamara Sloboda, Birgit Kammlander, Elin Berggren, Stefania Riva, Erika Giangrisostomi, Ruslan Ovsyannikov, Håkan Rensmo, Andreas Lindblad and Ute B. Cappel\*

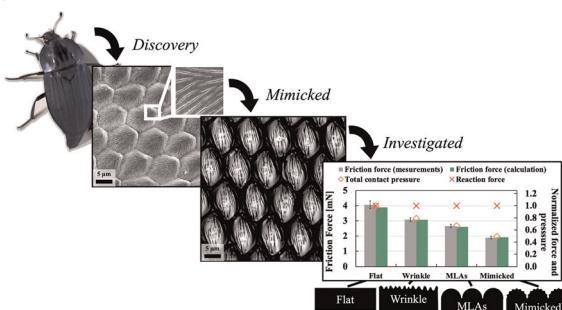
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Kazuma Tsujioka, Yuji Hirai, Masatsugu Shimomura and Yasutaka Matsuo\*

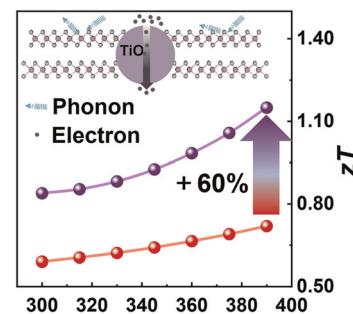


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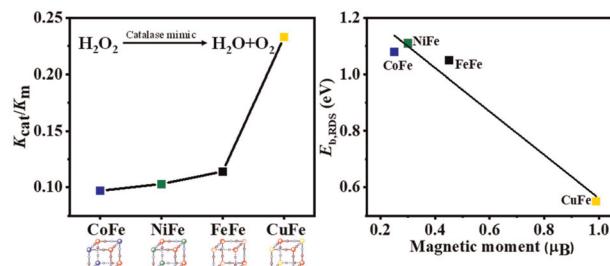
Hanwen Hu, Yiyan Liao, Shanshan Tan, Chen Li, Jun Tang, Kun Zheng\* and Lei Yang\*



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**Insights into the mechanism of a substituted metal center regulating the enzymatic activity of Prussian blue analogues for catalytic antioxidation**

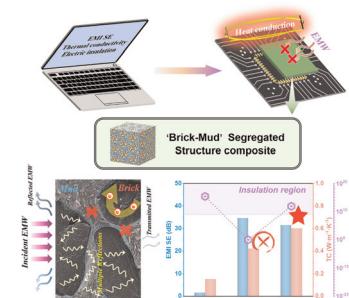
Genxiu Zhou, Qingrong Dong, Zhi Li, Feifei Yang, Xiaomei Shen,\* Quan Liu, Ge Fang\* and Cuicui Ge\*



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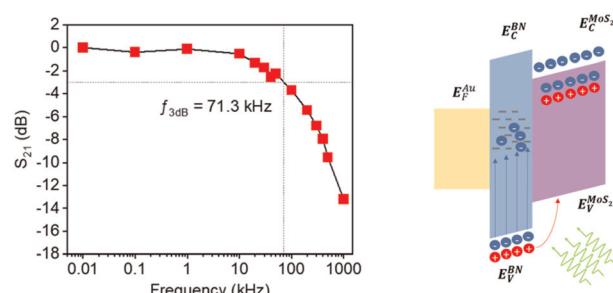
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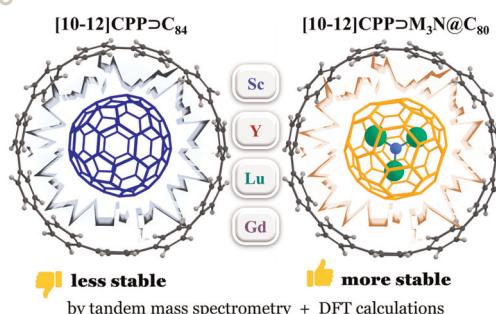
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Wangheng Pan, Anran Wang, Xinguang Wu, Xialian Zheng, Hu Chen, Shuchao Qin, Zheng Vitto Han, Siwen Zhao,\* Rong Zhang and Fengqiu Wang\*



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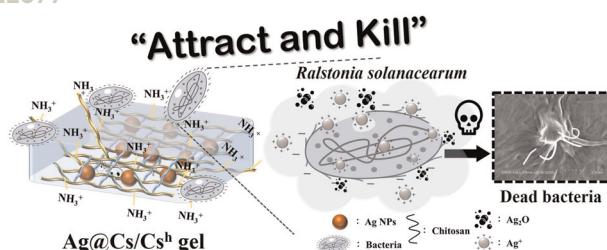
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### Stability of [10–12]cycloparaphenylenes complexes with pristine fullerenes C<sub>76,78,84</sub> and endohedral metallofullerenes M<sub>3</sub>N@C<sub>78,80</sub>

Markus Freiberger, Olga A. Stasyuk, M. Eugenia Pérez-Ojeda, Luis A. Echegoyen, Miquel Solà\* and Thomas Drewello\*

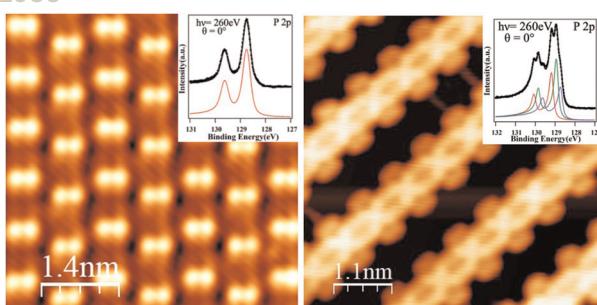
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### The attract–kill inhibition mechanism in Ag/chitosan hydrogel for long-acting control of *Ralstonia solanacearum*

Yi-Hsin Chien,\* Bo-Yan Lin, Han-Hsiang Shih, Chun-Yu Chen and Peng-Chieh Chen

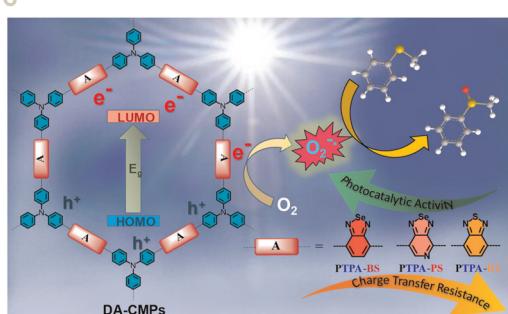
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### Synthesis and properties of phosphorus nanostructures on Au(110)

Xiao Zhang, Hamza El kari, Hanna Enriquez, Azzedine Bendounan, Abdelkader Kara, Yannick J. Dappe and Hamid Oughaddou\*

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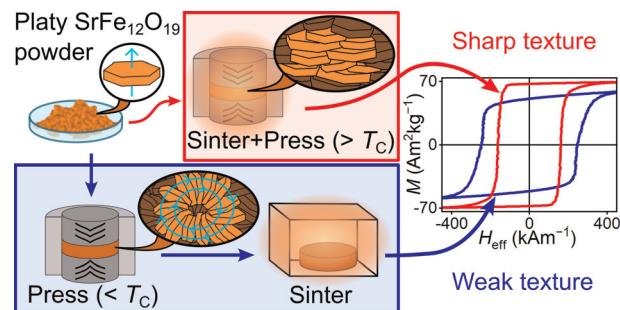
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Soumitra Sau, Suman Karmakar, Flora Banerjee and Suman Kalyan Samanta\*

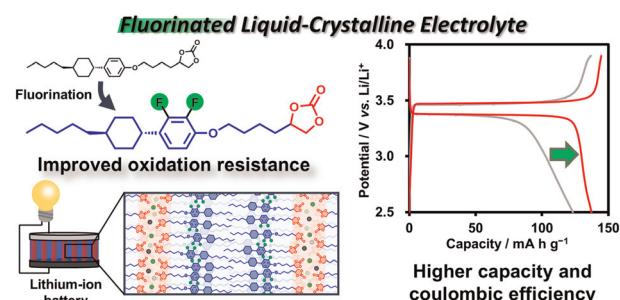


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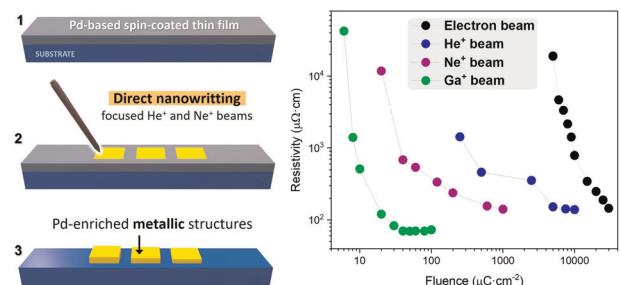
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Shunsuke Sato, Go Watanabe, Junya Uchida and  
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Gregor Hlawacek, Pilar Cea and José María De Teresa\*

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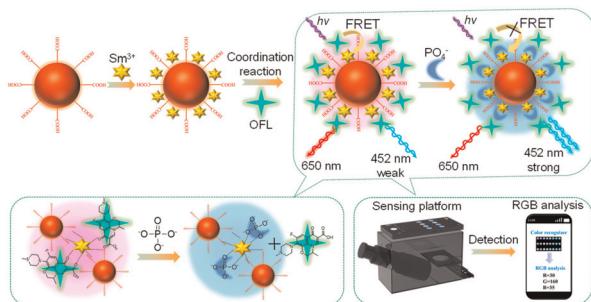
**Rapid fabrication of tunable structural color patterns by spray-coating**

Jingran Huang, Guiwu Liu, Ting Lü\* and Ling Bai\*

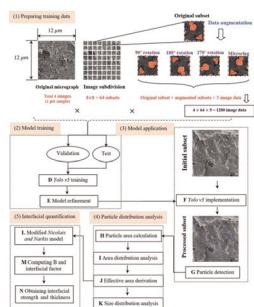


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Shengnan Yin and Zheng Li\*

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R. Mohsenzadeh,\* B. H. Soudmand, A. H. Najafi, F. Hazzazi and M. Fattahi\*

