

# Materials Advances

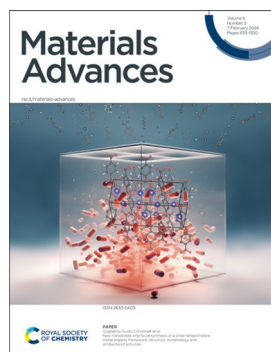
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### Cover

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### Inside cover

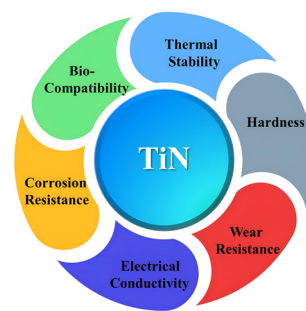
See D. P. Halliday *et al.*, pp. 1045–1055. Image reproduced by permission of Greg Robson.

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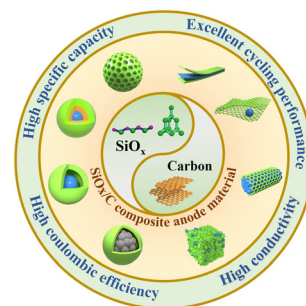
Ujjwal Mahajan, Mahesh Dhonde,\* Kirti Sahu,\* Pintu Ghosh and Parasharam M. Shirage\*



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Yuanteng Yang, Yanxia Liu, Xiaoli Jiang, Lin Zhao, Penglei Wang\* and Yagang Zhang\*



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Fundamental questions  
Elemental answers

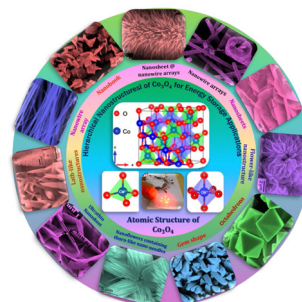


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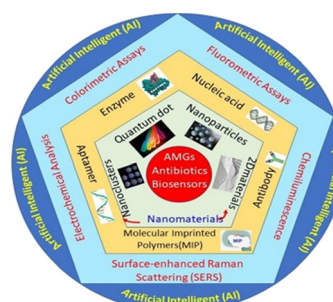
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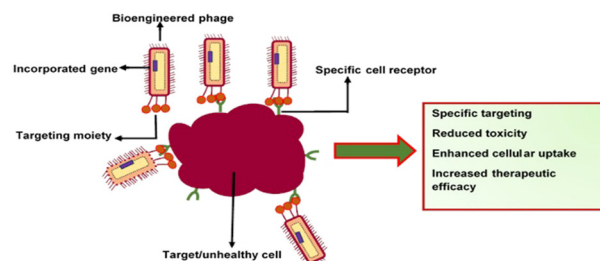
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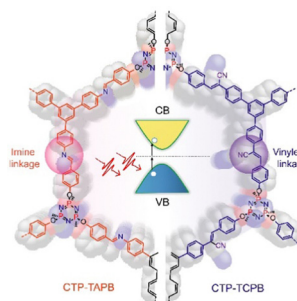


## COMMUNICATIONS

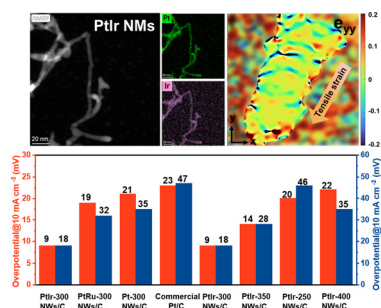
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Suresh Bommakanti, Satyapriya Nath, Rudrashish Panda, Ritwick Das\* and Bishnu P. Biswal\*



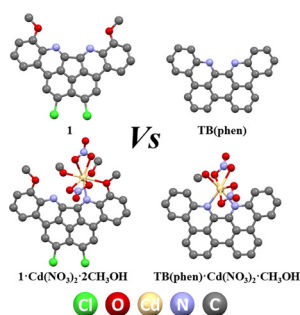
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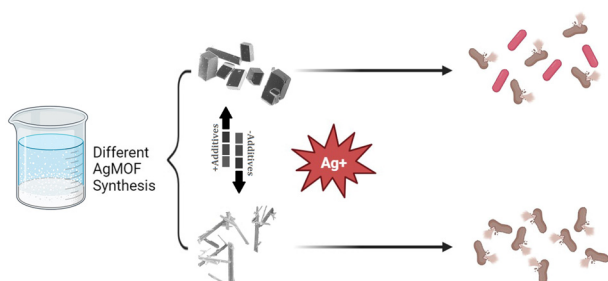


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Jinku Bai, Xiao Xu, Xin-Yue Wang, Xin Sun, Jiaqi Liang, Tongling Liang and Han-Yuan Gong\*

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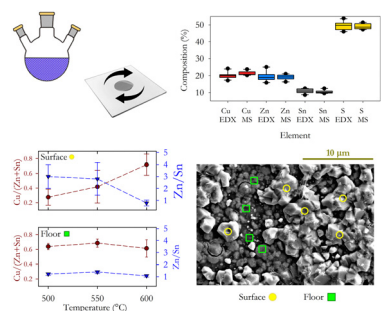
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### Variability of Cu<sub>2</sub>ZnSnS<sub>4</sub> nanoparticle hot injection synthesis and modifications by thin film annealing

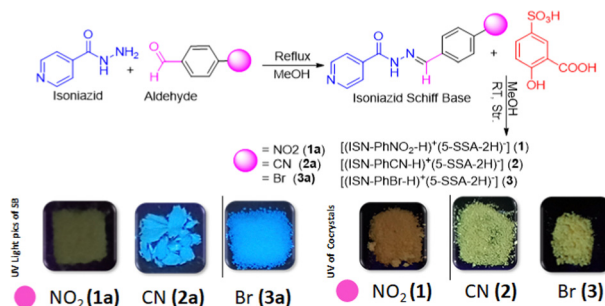
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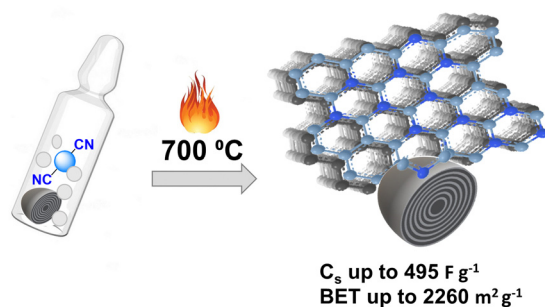
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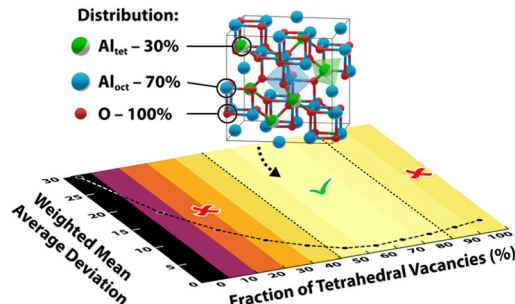
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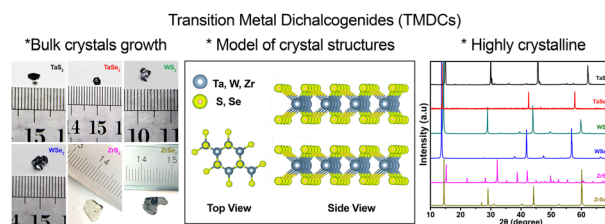
Henry O. Ayoola, Cheng-Han Li, Stephen D. House, Matthew P. McCann, Joshua J. Kas, Joerg R. Jinschek, John J. Rehr, Wissam A. Saidi\* and Judith C. Yang\*



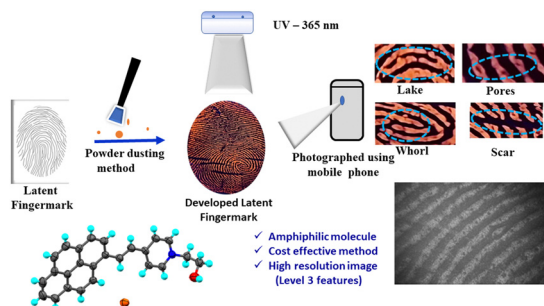
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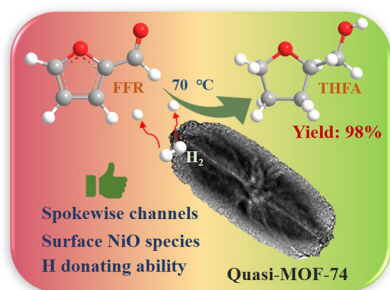
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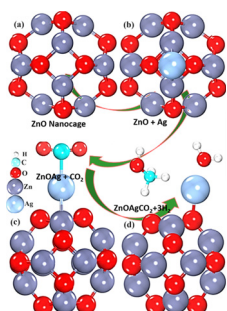
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### Synthesis of Quasi-MOFs featuring special hub-and-spoke channels and surface NiO species for enhanced total hydrogenation of furfural

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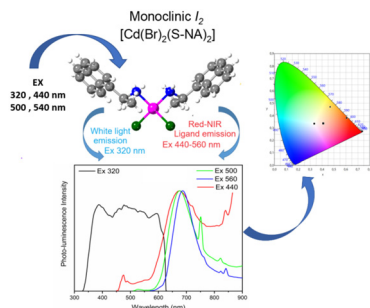
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### Assembly of a cadmium(II)-based chiral complex: crystal structure and optical properties for solid state white-light emission applications

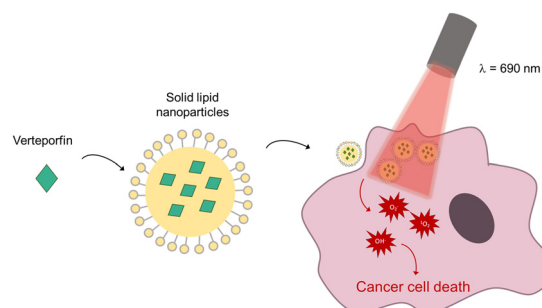
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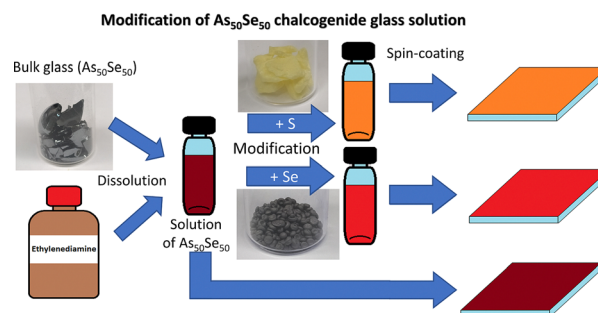
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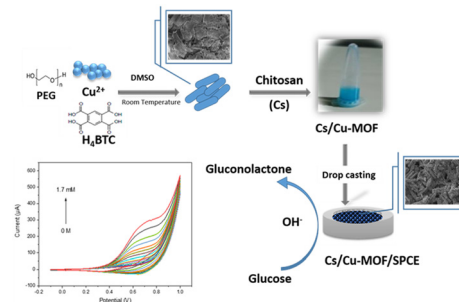
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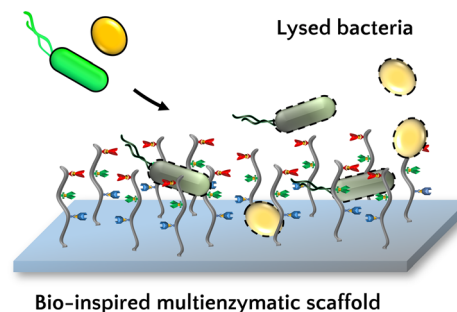
Sondes Guesmi, Kaveh Moulaei, Viviana Bressi, Hamza Kahri, Amani Khaskhoussi, Claudia Espro, Houcine Barhoumi and Giovanni Neri\*



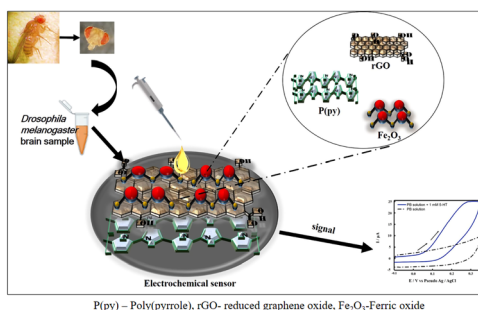
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### Simultaneous enzyme grafting on bio-inspired scaffolds for antibacterial protection

Baptiste Arbez, Chloé Retourney, Fabienne Quilès, Gregory Francius, Henri-Pierre Fierobe and Sofiane El-Kirat-Chatel\*



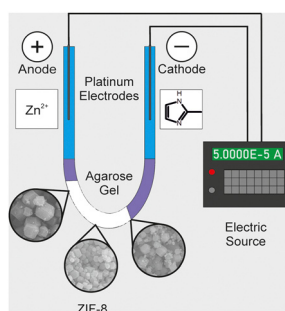
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Sharmila Prashanth, Raifa Abdul Aziz, Shamprasad Varija Raghu, Yoon-Bo Shim, K. Sudhakara Prasad\* and Airody Vasudeva Adhikari\*

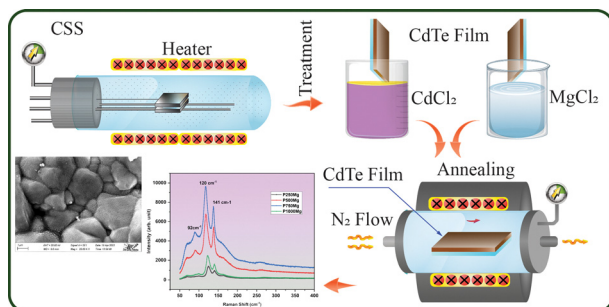
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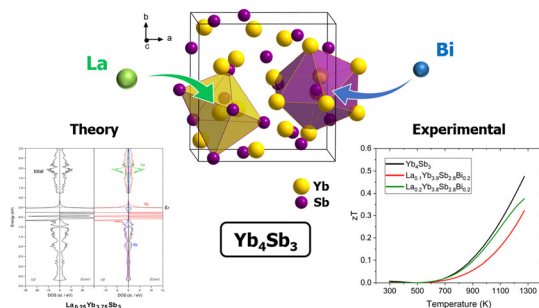
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Afrina Sharmin, Syed Shafquat Mahmood, Munira Sultana, Md Aftab Ali Shaikh and Muhammad Shahriar Bashar\*

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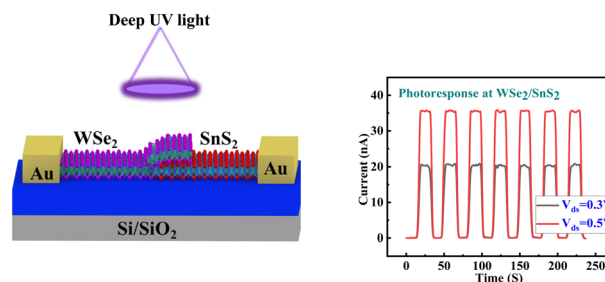
Hugo Bouteiller,\* Vincent Pelletier, Sylvain Le Tonquesse, Bruno Fontaine, Takao Mori, Jean-François Halet, Régis Gautier,\* David Berthebaud\* and Franck Gascoin



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### Gate-controlled rectification and broadband photodetection in a P–N diode based on TMDC heterostructures

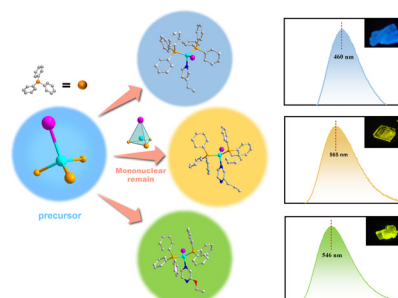
Ehsan Elahi,\* Sobia Nisar, Muhammad Rabeel, Malik Abdul Rehman, Mohamed Ouladsamne, Ahmad Irfan, Muhammad Abubakr, Jamal Aziz, Muhammad Asim and Ghulam Dastgeer\*



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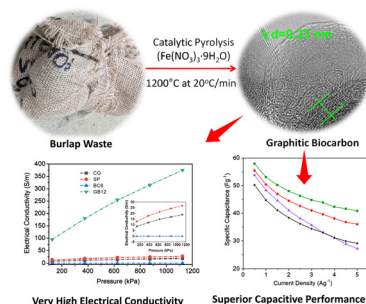
Yi Lv, Jing Yang, Haibo Li, Wei Liu\* and Gangfeng Ouyang\*



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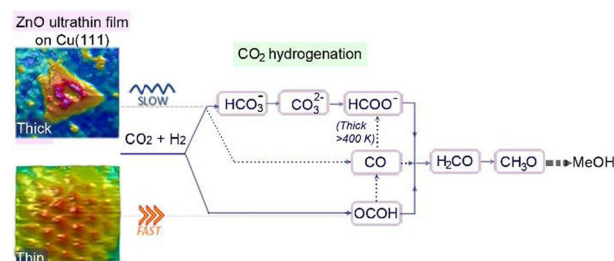
Haftom Weldekidan, Singaravelu Vivekanandhan, Neelima Tripathi, Amar Mohanty\* and Manjusri Misra



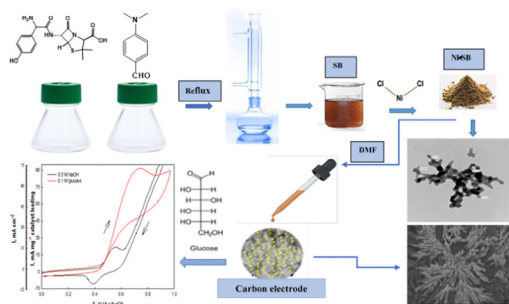
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Sonia Hadaoui, Hang Liu, Zhang Lei, Sébastien Lebègue, Rabah Benbalagh, Alexa Courty\* and Ahmed Naitabdi\*



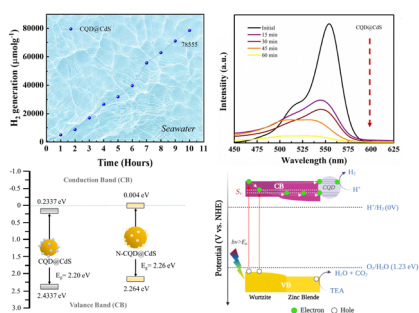
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M. A. Sultan,\* Safaa S. Hassan, K. A. Omran and H. B. Hassan

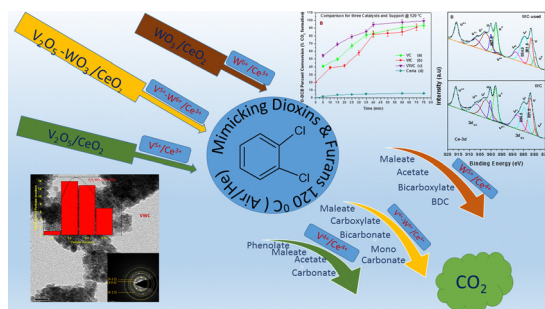
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Bishal Kumar Nahak and Fan Gang Tseng\*

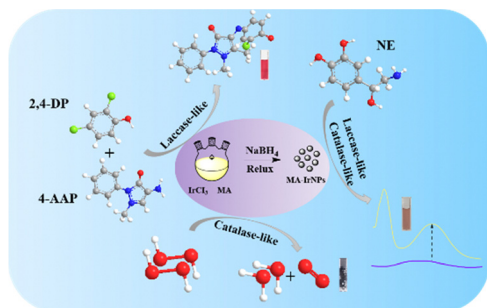
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Adarsh Kumar, Deepak Tyagi, Salil Varma, Hushan Chand, V. Krishnan, K. Bhattacharyya\* and A. K. Tyagi\*

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Xuan Chen, Lin Zhou, Zhanghong Guo and Qijun Song\*



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