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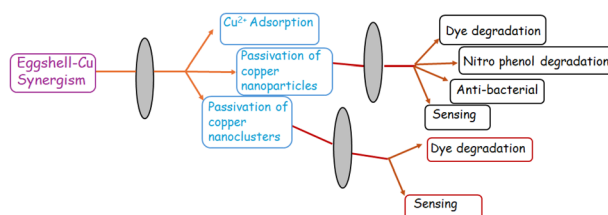


See Naveed Ahmed,
Daniel Jaque Garcia,
Mubashar Rehman *et al.*,
pp. 4024–4038. Image
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Nanoscale Adv., 2025, 7, 4024.

3914

Application of the synergism between eggshells and copper in nanotechnology

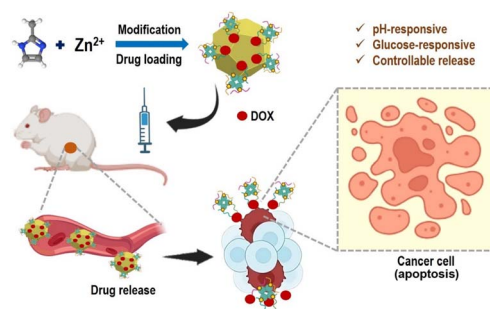
Priyanka Sharma, Mainak Ganguly* and Ankita Doi



3941

Synthesis methods, structure, and recent trends of ZIF-8-based materials in the biomedical field

Thuan Van Tran,* Hoang Huy Dang, Huy Nguyen,
Ngoan Thi Thao Nguyen, Dai Hai Nguyen
and Thuy Thi Thanh Nguyen*



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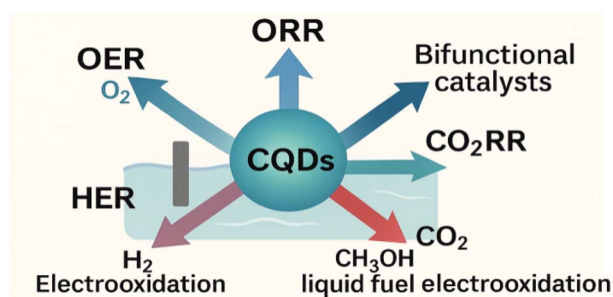
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REVIEWS

3961

Carbon quantum dots for sustainable energy: enhancing electrocatalytic reactions through structural innovation

Fadhel F. Sead, Yashwantsinh Jadeja, Anjan Kumar, Rekha M. M., Mayank Kundlas, Suman Saini, Kamal Kant Joshi and Hadi Noorizadeh*

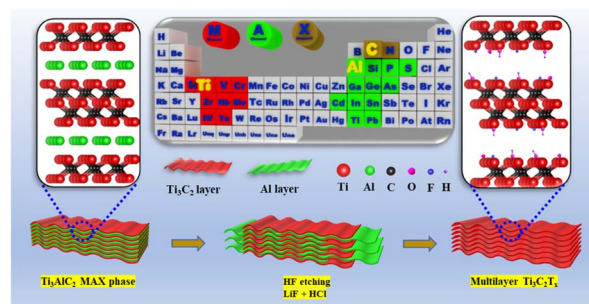


MINIREVIEW

3999

Recent progress in the synthesis of nanostructured $\text{Ti}_3\text{C}_2\text{T}_x$ MXene for energy storage and wastewater treatment: a review

Qui Thanh Hoai Ta, Jianbin Mao, Ngo Thi Chau, Ngoc Hoi Nguyen, Dieu Linh Tran, Thi My Huyen Nguyen, Manh Hoang Tran, Hoang Van Quy, Soonmin Seo* and Dai Hai Nguyen*

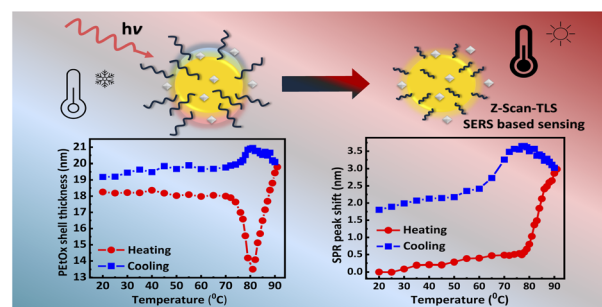


COMMUNICATION

4018

Plasmonic behaviour of poly(2-ethyl-2-oxazoline)-coated gold nanoparticles for sensing and temperature-control applications

Oleg Yeshchenko,* Léa Daoud, Pavlo Khort, Oles Fedotov, Julien-Bilal Zinoune, Georges Boudebs, Tony Breton, Catherine Passirani, Patrick Saulnier and Oksana Krupka*

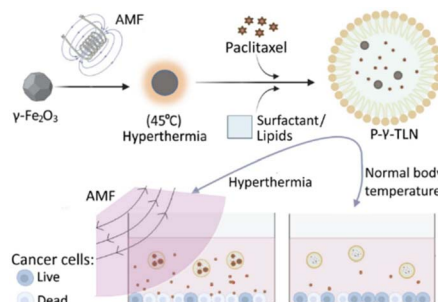


PAPERS

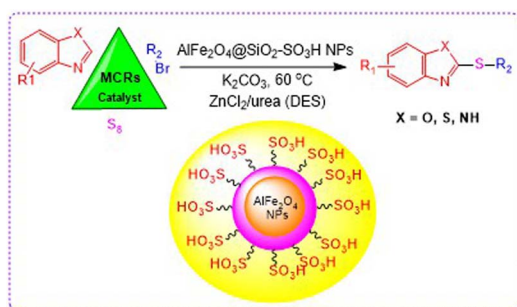
4024

Magnetic hyperthermia-triggered multi-functional thermo-responsive lipid nanoparticles for enhanced paclitaxel release and cytotoxicity

Muhammad Tayyab, Naveed Ahmed,* Muhammad Hisham Al Nasir, Ayesha Ihsan, Asim Ur Rehman, Khurram Shahzad Munawar, Daniel Jaque Garcia,* Maria del Carmen Iglesias de la Cruz and Mubashar Rehman*



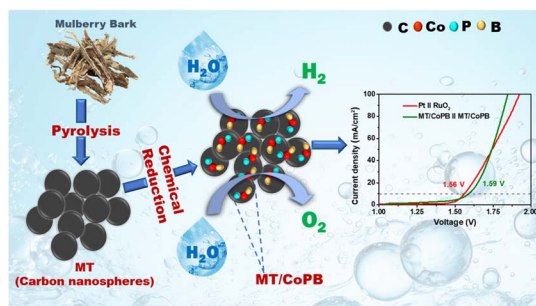
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An $\text{AlFe}_2\text{O}_4@\text{SiO}_2\text{-SO}_3\text{H}$ innovative nanocatalyst: a sustainable approach for the A3 coupling reaction in a DES for 2-thioarylbenzimidazoles

Ahmad Sajjadi,* Suranjana V. Mayani, Suhas Ballal, Shaker Al-Hasnaawei, Abhayveer Singh, Kattela Chennakesavulu and Kamal Kant Joshi

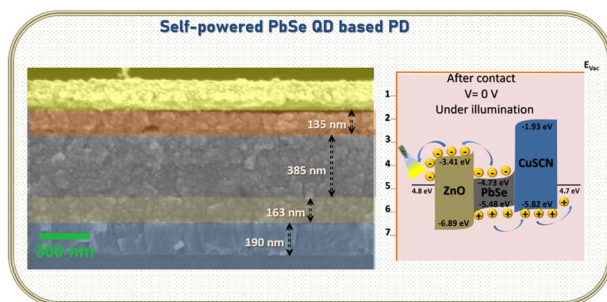
4056



Biomass-derived carbon supported cobalt-phosphoride as a bifunctional electrocatalyst for enhanced alkaline water splitting

B. Sirichandana, R. Silviya, S. Venkataprasad Bhat, Nainesh Patel and Gurumurthy Hegde*

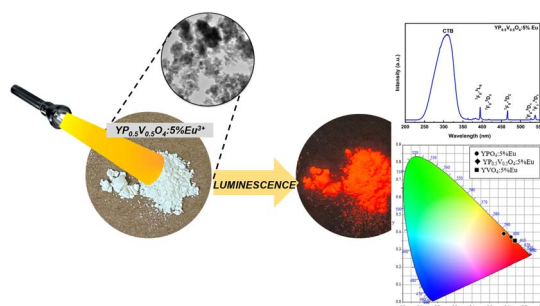
4067



Self-powered, ultrabroad band photodetectors with large open circuit voltage using colloidal PbSe QDs

Yuquan Chen, Chandrasekar Perumalveeramalai, Chuanbo Li, S. V. N. Pammi, Jagadeesh Babu Bellam, Xiaoming Zhang* and Peipei Ma*

4077



Structure, morphology, optical properties, and Judd–Ofelt analysis of $\text{YP}_{(1-x)}\text{V}_x\text{O}_4:\text{Eu}^{3+}$ materials synthesized by the combustion method

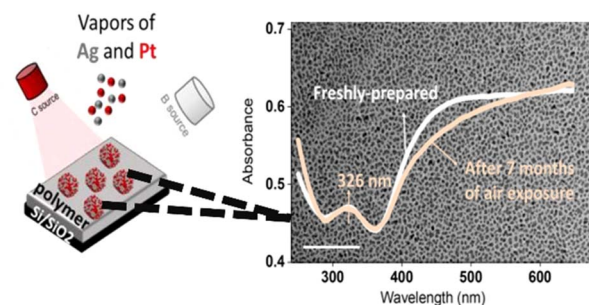
Nguyen Vu,* Ngo Khac Khong Minh, Thai Thi Dieu Hien, Pham Duc Roan, Lam Thi Kieu Giang, Nguyen Thanh Huong, Hoang Thi Khuyen, Pham Thi Lien, Dinh Manh Tien, Nguyen Trung Kien* and Dao Ngoc Nhiem



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Polymer/AgPt bimetallic nanoparticle synergy: optimizing plasmonic durability through controlled synthesis and matrix integration

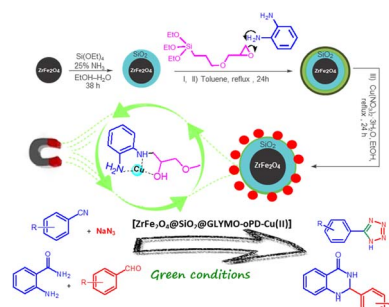
Abeer Fahes,^{*} Lavinia Balan, Caroline Andreazza-Vignolle, Claudia de Melo, Didier Zanghi and Pascal Andreazza^{*}



4104

Copper(II) complex-decorated ZrFe₂O₄ nanoparticles as a recyclable magnetic nanocatalyst for synthesis of N-containing heterocycles

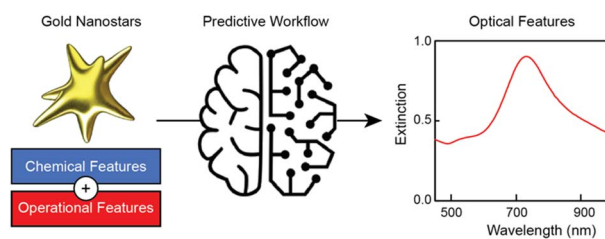
Tara Miladi and Masoomah Norouzi^{*}



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Machine learning to predict gold nanostar optical properties

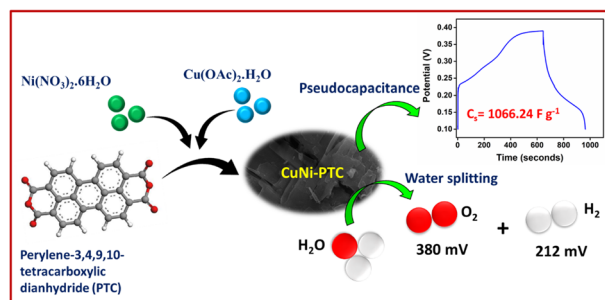
Peiying Wu, Rui Zhang, Céline Porte, Fabian Kiessling, Twan Lammers, Sima Rezvantab,^{*} Sara Mihandoost^{*} and Roger M. Pallares^{*}



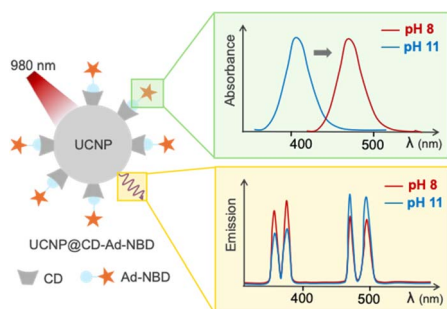
4129

CuNi–PTC metal–organic framework: unveiling pseudocapacitive energy storage and water splitting capabilities

Samika Anand and Kalathiparambil Rajendra Pai Sunajadevi^{*}



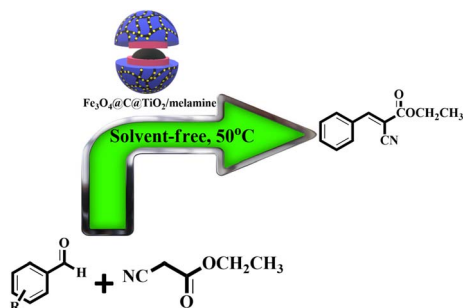
4142



A host–guest approach to ratiometric pH sensing using upconversion nanoparticles

Ivo Rosenbusch, Marylyn Setsuko Arai, Fabio Rizzo,*
Andrea S. S. de Camargo* and Bart Jan Ravoo*

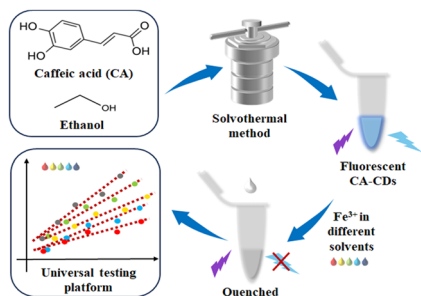
4152



A melamine supported on TiO₂ coated Fe₃O₄@C nanocomposite as a bifunctional, effective and reusable catalyst for the Knoevenagel condensation reaction

Somayeh Abaezadeh, Alireza Salimi Beni*
and Aliyeh Barzkar

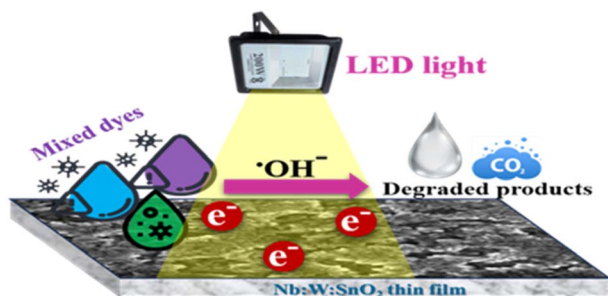
4161



Sensitive, selective, and pretreatment-free detection of ferric ions in different solvents based on organic-soluble carbon dots

Jingfang Shangguan, Chengjie Qiao, Yuyang Zhang,
Na Liu, Tongkun Wei, Zhuo Chen, Yuan Yuan, Qilu Li, Lin Li
and Wei Liu*

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Photodegradation of mixed organic dyes using Nb and W co-doped spray coated transparent conducting SnO₂ thin films

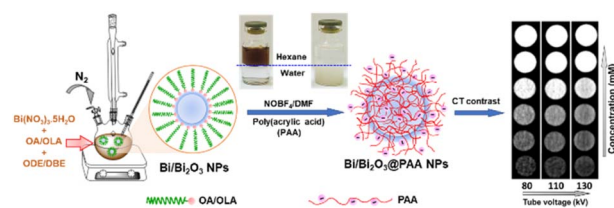
Gouranga Maharana, Yuvashree Jayavelu,
Manavalan Kovendhan and D. Paul Joseph*



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Ultrasmall Bi/Bi₂O₃ nanoparticles as biocompatible and efficient CT imaging contrast agents

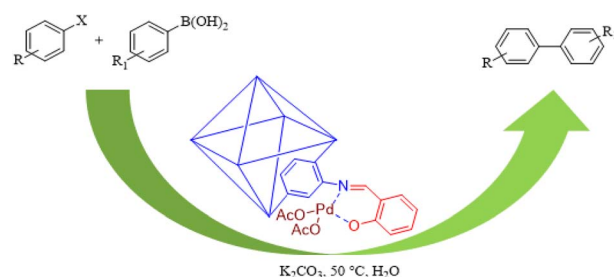
Le T. T. Tam, Duong T. Ngoc, Nguyen T. N. Linh, Le T. Tam, Nguyen V. Dong, Nguyen T. Yen, Nguyen T. Suong, Ngo T. Dung* and Le T. Lu



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UiO-66-NH₂ metal–organic framework supported palladium/Schiff-base complex as a highly efficient and robust catalyst for the Suzuki reaction

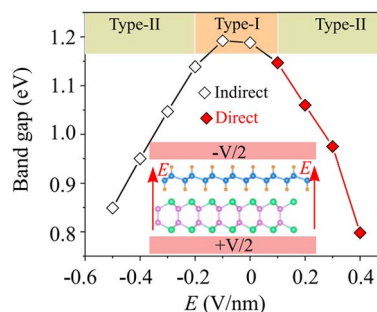
Shiva Kargar and Dawood Elhamifar*



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First-principles exploration of the electronic versatility of the GeH/SiSb heterostructure through stacking and electric fields

Nguyen Xuan Sang and Khang D. Pham*



4214

Giving new life to an outdated spectrofluorometer for static and time-resolved UCNP optical characterization

Tomás Di Napoli, Juan M. Bujjamer, Marcos Illescas, Beatriz Barja and Hernán E. Grecco*

