

# Nanoscale Advances

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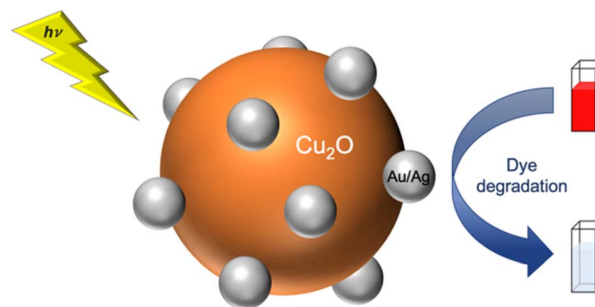
**Inside cover**  
See Maria Antonieta Ramirez-Morales, Maria Ada Malvindi *et al.*, pp. 5766–5773. Image reproduced by permission of Maria Ada Malvindi from *Nanoscale Adv.*, 2023, 5, 5766.

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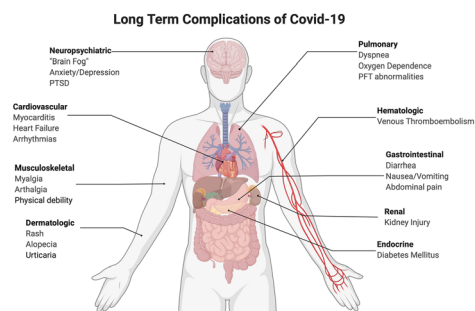
Enrico Daniel R. Legaspi and Michelle D. Regulacio\*



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Muhammad Abdullah, Amjed Ali, Muhammad Usman, Anam Naz, Javed Anver Qureshi, Majed A. Bajaber and Xiao Zhang\*



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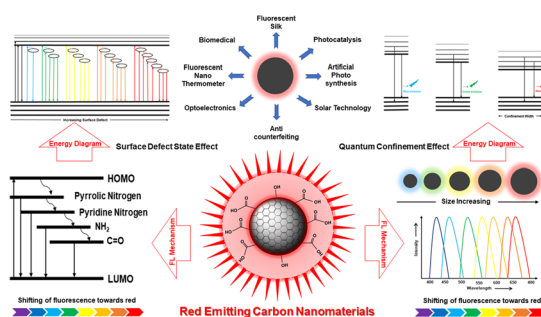


## REVIEWS

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## Comprehensive advances in the synthesis, fluorescence mechanism and multifunctional applications of red-emitting carbon nanomaterials

Tuhin Mandal, Shiv Rag Mishra and Vikram Singh\*

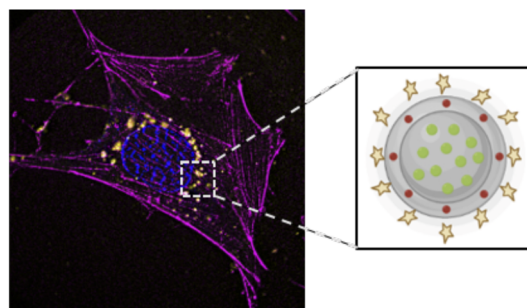


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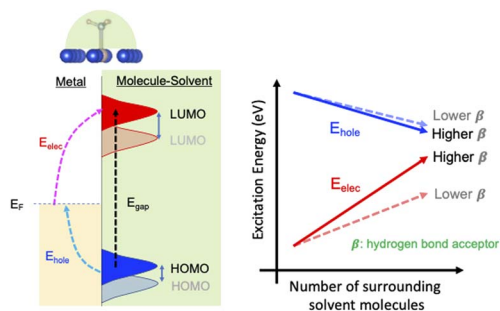
Maria Antonietta Ramirez-Morales,\* Elisa De Luca, Chiara Coricciati, Alberto Rainer, Giuseppe Gigli, Giuseppe Mele, Pier Paolo Pompa and Maria Ada Malvindi\*



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## Solvent-induced local environment effect in plasmonic catalysis

Tien Le and Bin Wang\*

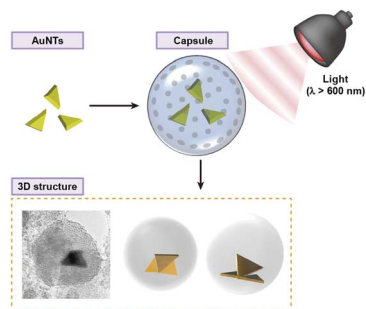


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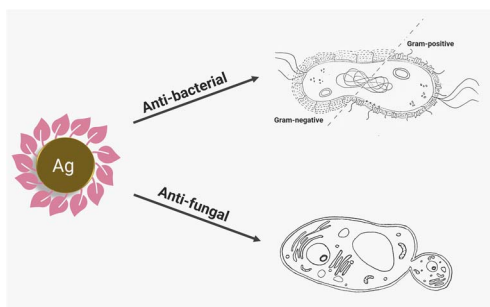
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## Three-dimensional building of anisotropic gold nanoparticles under confinement in submicron capsules

Ryuichi Yamada, Makoto Kuwahara and Shota Kuwahara\*



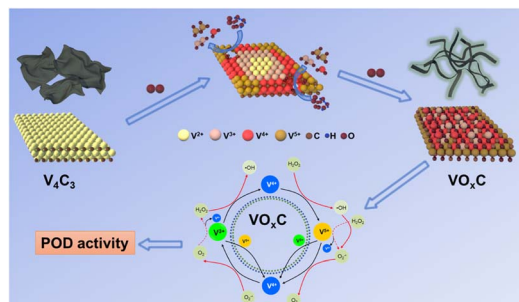
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### Enhancing the antimicrobial activity of silver nanoparticles against ESKAPE bacteria and emerging fungal pathogens by using tea extracts

Sada Raza, Mateusz Wdowiak, Mateusz Grotek, Witold Adamkiewicz, Kostiantyn Nikiforow, Pumza Mente and Jan Paczesny\*

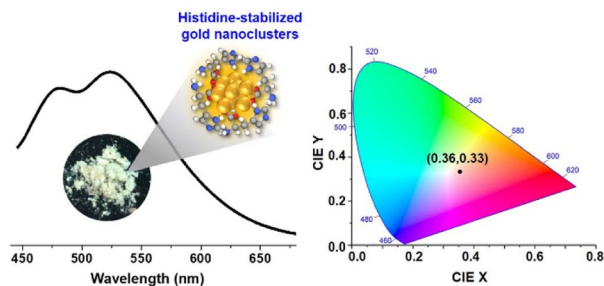
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### Oxidation engineering triggered peroxidase-like activity of $\text{VO}_x\text{C}$ for detection of dopamine and glutathione

Huimin Jia, Quan Liu, Jingjing Si, Yuyang Chen, Guo Zhou, Haihui Lan and Weiwei He\*

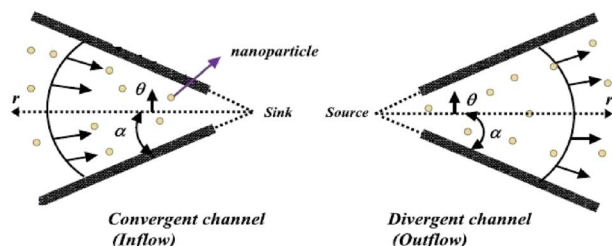
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### Dual-emissive solid-state histidine-stabilized gold nanoclusters for applications in white-light generation

Markus Zetes, Alexandru-Milentie Hada, Milica Todea, Luiza Ioana Gaina, Simion Astilean and Ana-Maria Craciun\*

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### Flow and heat transfer of $\text{Al}_2\text{O}_3$ and $\gamma\text{-Al}_2\text{O}_3$ through a channel with non-parallel walls: a numerical study

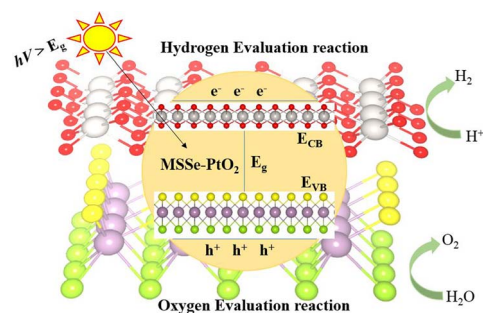
Abdul Hamid Ganie, Basharat Ullah, J. EL Ghoul, Kiran Zahoor and Umar Khan\*



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## Tunable electronic structures, Rashba splitting, and optical and photocatalytic responses of MSSe-PtO<sub>2</sub> (M = Mo, W) van der Waals heterostructures

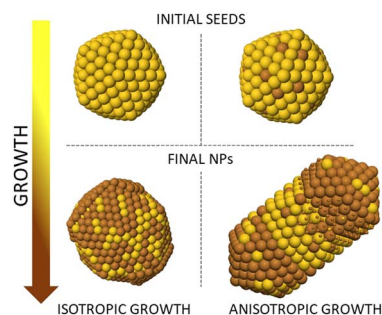
Sadia H. Gul, Tahani A. Alrebdi, M. Idrees and B. Amin\*



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## Growth pathways of Cu shells on Au and AuCu seeds: interdiffusion, shape transformations, strained shells and patchy surfaces

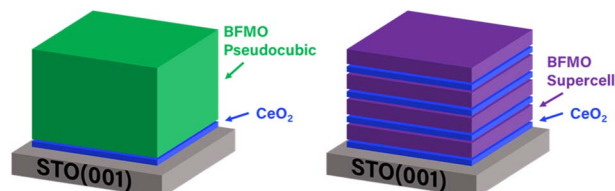
El yakout El koraychy and Riccardo Ferrando\*



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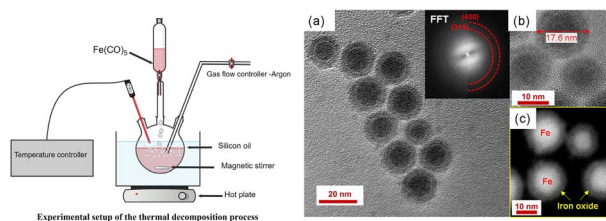
James P. Barnard, Jianan Shen, Yizhi Zhang, Juanjuan Lu, Jiawei Song, Aleem Siddiqui, Raktim Sarma and Haiyan Wang\*



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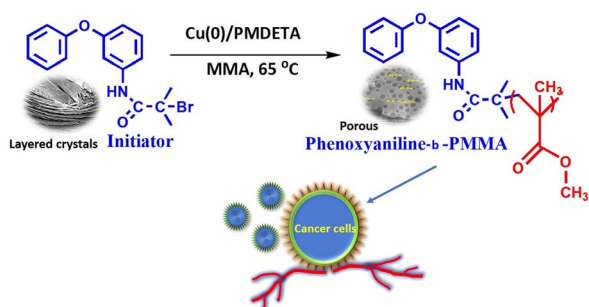
## Surfactant-driven optimization of iron-based nanoparticle synthesis: a study on magnetic hyperthermia and endothelial cell uptake

K. Riahi,\* I. Dirba, Y. Ablets, A. Filatova, S. N. Sultana, E. Adabifiroozjaei, L. Molina-Luna, U. A. Nuber and O. Gutfleisch





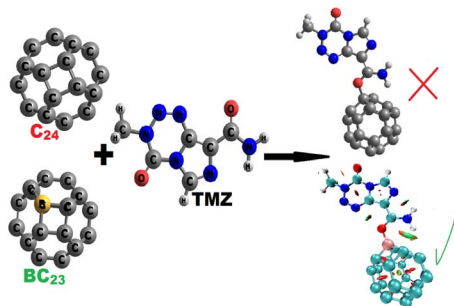
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### *In vitro* anti-prostate adenocarcinoma and lung cancer studies of phenoxyaniline-*block*-poly(methyl methacrylate) based nanocomposites *via* controlled radical polymerization

Sahariya Priya, Adhigan Murali,\* Sakar Mohan, A. Lakshminarayanan, S. Sekar, R. Ramesh,\* M. Devendiran and Sung Soo Han\*

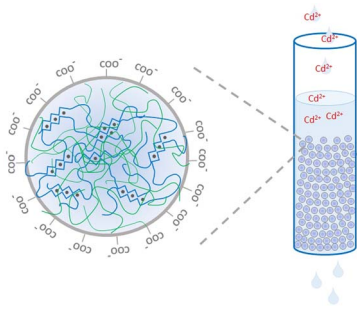
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### DFT investigation of temozolomide drug delivery by pure and boron doped C<sub>24</sub> fullerene-like nanocages

Aymard Didier Tamafo Fouegue,\* Vincent de Paul Zoua, Gervais Ndongou Kounou, Brice Laure Ndjopme Wandji, Julius Numbonui Ghogomu and Rahman Abdoul Ntieche\*

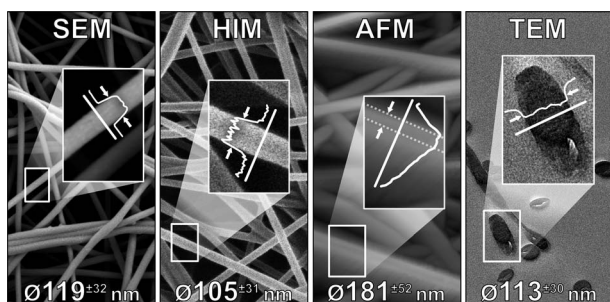
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### *In situ* modified nanocellulose/alginate hydrogel composite beads for purifying mining effluents

Dimitrios Georgouvelas, Hani Nasser Abdelhamid, Ulrica Edlund and Aji P. Mathew\*

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### Nanofibers are a matter of perspective: effects of methodology and subjectivity on diameter measurements

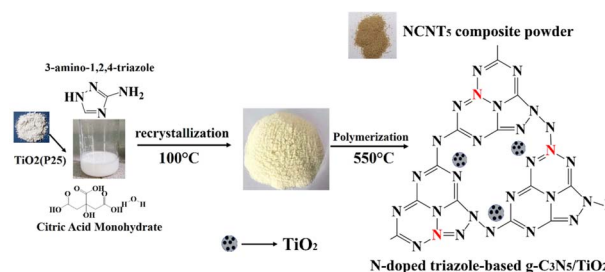
Martin Wortmann,\* Michael Westphal, Bernhard Kaltschmidt, Michaela Klöcker, Ashley S. Layland, Bennet Brockhagen, Andreas Hütten, Natalie Frese and Andrea Ehrmann



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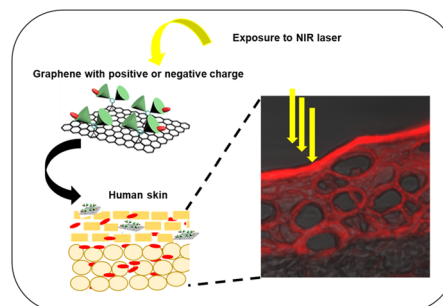
Saravanan Kamalakannan, Natarajan Balasubramaniyan,\* Neppolian Bernaudshaw and Ganesh Vattikondala



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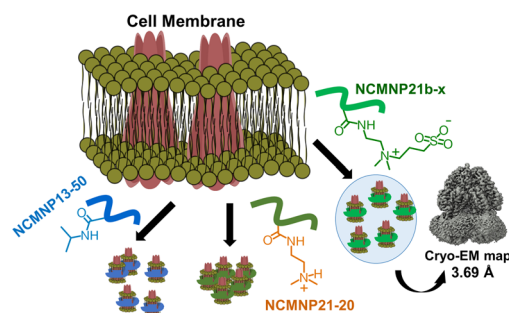
Fatemeh Zabihi,\* Zhaoxu Tu, Sabine Kaessmeyer, Fabian Schumacher, Fiorenza Rancan, Burkhard Kleuser, Christoph Boettcher, Kai Ludwig, Johanna Plendl, Sarah Hedtrich, Annika Vogt and Rainer Haag\*



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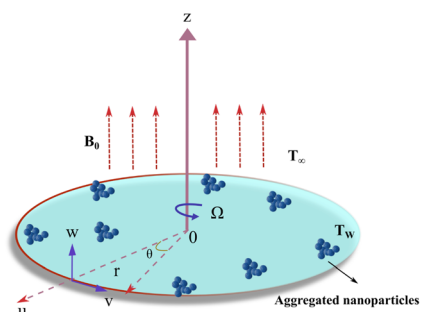
Thi Kim Hoang Trinh, Claudio Catalano and Youzhong Guo\*



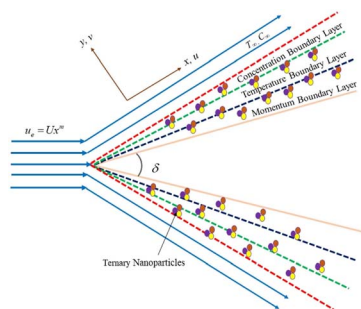
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Pudhari Srilatha, Madhu J, Umair Khan,\* R. Naveen Kumar, R. J. Punith Gowda, Samia Ben Ahmed and Raman Kumar



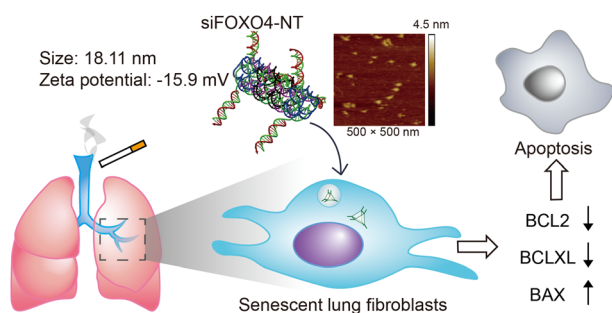
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### Thermal performance of $\text{Fe}_3\text{O}_4$ , SWCNT, MWCNT and $\text{H}_2\text{O}$ based on magnetohydrodynamic nanoflow across a wedge with significant impacts of Soret and Dufour

K. Vinutha, K. V. Nagaraja, Kiran Sajjan, Umair Khan,\*  
J. K. Madhukesh, Uma C. Kolli and Taseer Muhammad

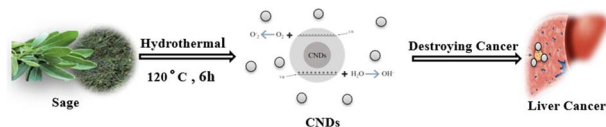
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### DNA nanoparticles targeting FOXO4 selectively eliminate cigarette smoke-induced senescent lung fibroblasts

Yaopin Han, Yixing Wu, Binfeng He, Di Wu, Jianlan Hua, Hang Qian\* and Jing Zhang\*

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### Green synthesis of fluorescent carbon nanodots from sage leaves for selective anticancer activity on 2D liver cancer cells and 3D multicellular tumor spheroids

Shadi Sawalha,\* Samer Abdallah, Amal Barham, Hala Badawi, Zeina Barham, Ahmad Ghareeb, Giuseppe Misia, Silvia Collavini, Alessandro Silvestri, Maurizio Prato and Mohyeddin Assali\*

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### Correction: Recent trends in carbon nanotube (CNT)-based biosensors for the fast and sensitive detection of human viruses: a critical review

Hicham Meskher,\* Hussain Chaudhery Mustansar, Amrit Kumar Thakur,\* Ravishankar Sathyamurthy, Iseult Lynch,\* Punit Singh, Tan Kim Han and Rahman Saidur\*

