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Sensors & Diagnostics

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See Aidana Beisenova *et al.*, pp. 1186–1198.
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See Sankarasekaran Shanmugaraju *et al.*, pp. 1158–1175.
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CRITICAL REVIEWS

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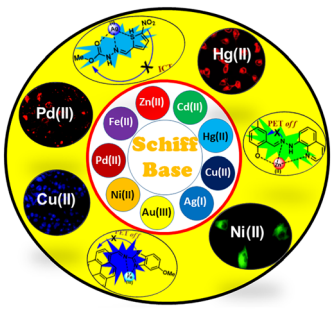
An overview of Schiff base-based fluorescent turn-on probes: a potential candidate for tracking live cell imaging of biologically active metal ions

A. Afrin, Anjitha Jayaraj, M. S. Gayathri and Chinna Ayya Swamy P.*



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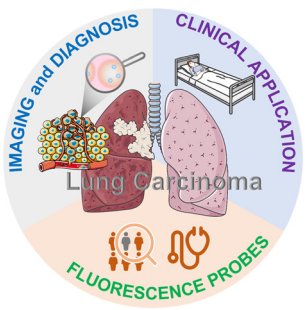
Fluorescence probes for lung carcinoma diagnosis and clinical application

Xiaoyu Zhang, Feifei Yu, Zhenkai Wang, Tongmeng Jiang, Xinyu Song* and Fabiao Yu*



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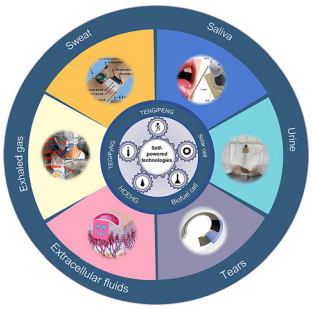
Self-powered sensors for biomarker detection

Jiaxuan Li, Lingling Xu, Yang Zou and Zhou Li*



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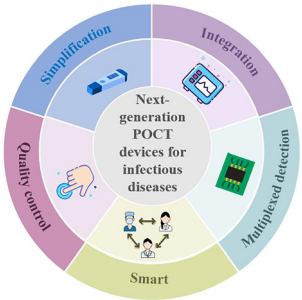
Point-of-care testing of infectious diseases: recent advances

Meiyun Shang, Jiuchuan Guo and Jinhong Guo*



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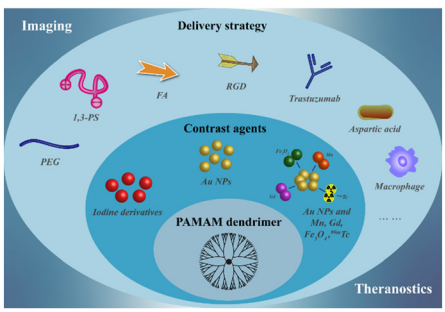
Recent advances in PAMAM dendrimer-based CT contrast agents for molecular imaging and theranostics of cancer

Tianyu Huang, Gaoming Li, Yunqi Guo, Guixiang Zhang,* Dzmitry Shchabin, Xiangyang Shi* and Mingwu Shen*



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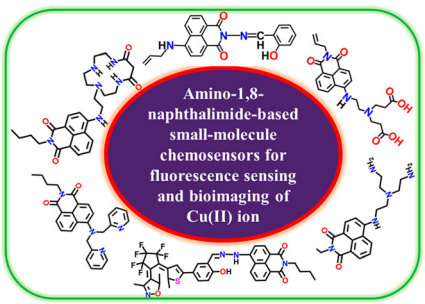
Fluorescence sensing and bioimaging of Cu(II) ions using amino-1,8-naphthalimide-based small-molecule chemosensors

Binduja Mohan, Noushija Mannanthara Kunhumon and Sankarasekaran Shanmugaraju*



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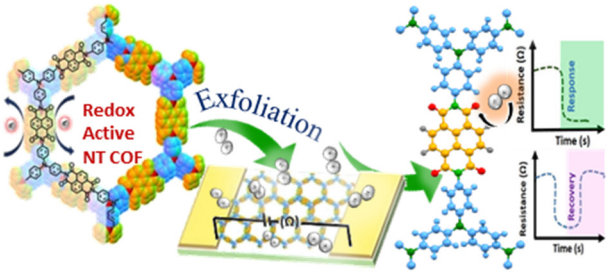

An exfoliated redox active imide covalent organic framework for metal free hydrogen gas sensing

Nany Thokala, Kiran Vankayala, Asmita Dileep Gaonkar, Ganga Periyasamy, Kashifa Fazl-Ur-Rahman, Krishnaveni Valle, Marilyn Esclance DMello, Keloth Basavaiah and Suresh Babu Kalidindi*

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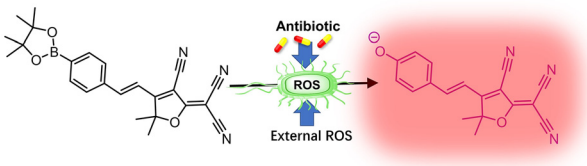

Repurposing a long-wavelength fluorescent boronate probe for the detection of reactive oxygen species (ROS) in bacteria

Kai-Cheng Yan, Naing Thet, Rachel A. Heylen, Adam C. Sedgwick,* Tony D. James,* A. Toby A. Jenkins* and Xiao-Peng He*

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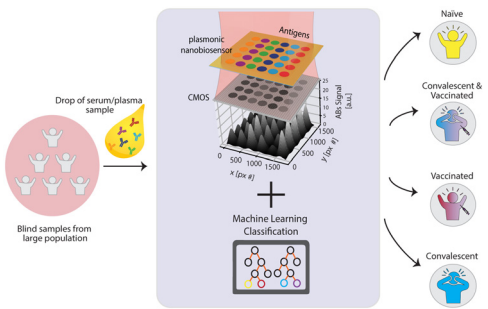

Machine-learning-aided multiplexed nanoplasmonic biosensor for COVID-19 population immunity profiling

Aidana Beisenova, Wihan Adi, S. Janna Bashar, Monniiesh Velmurugan, Kenzie B. Germanson, Miriam A. Shelef and Filiz Yesilkoy*

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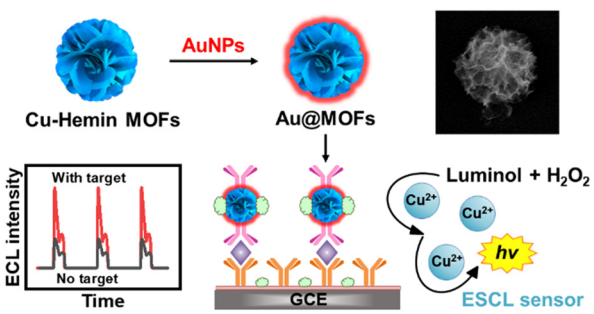

Functionalized metal–organic frameworks based on multi-catalyst ordered assembly for electrochemical stripping chemiluminescent immunoassay

Xu Liang, Yuecong Hu, Xinhe Zheng, Yi Shao, Yutong Hua, Junjie Liu, Zhiwei Zhu and Yuanhua Shao*

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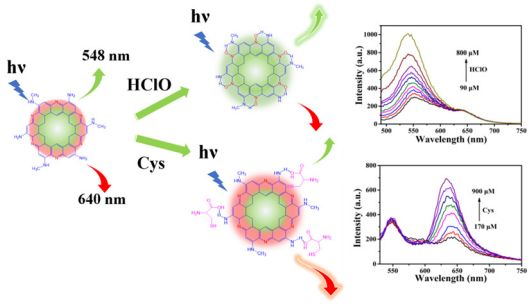
A fluorescence "turn-on" probe for the respective ratiometric detection of hypochlorite and cysteine

Zhizhen Wu, Muzi Cai, Wenjuan Lv, Cancan Lu, Bingyan Wu, Cuiling Ren,* Yalei Dong,* Hongli Chen and Xingguo Chen



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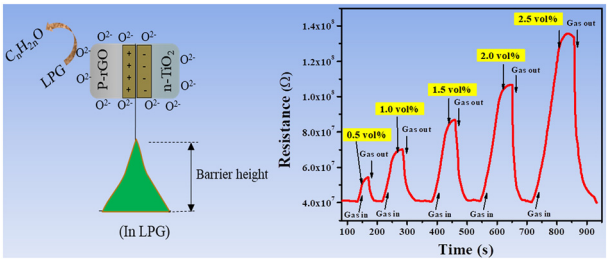
A highly sensitive room temperature liquefied petroleum gas (LPG) sensor with fast response based on a titanium dioxide (TiO_2)–reduced graphene oxide (r-GO) composite

Navin Chaurasiya, Ajeet Singh, Kuldeep Kumar, Bal Chandra Yadav, Pramod Kumar Yadawa,* Sandip Kumar Singh and Kajal Kumar Dey*



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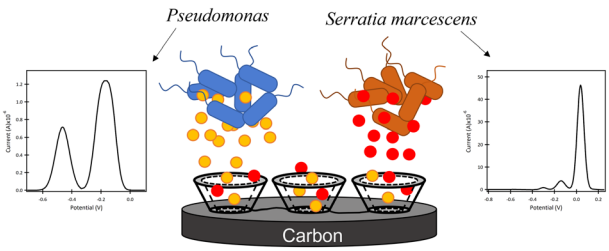
Rapid fingerprinting of bacterial species using nanocavities created on screen-printed electrodes modified by β-cyclodextrin

Niloofar Haghighian and Ritu Kataky*



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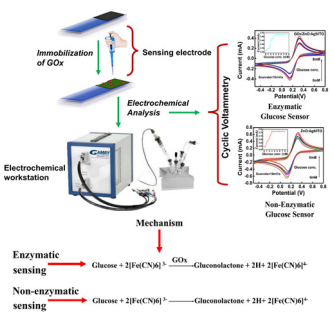
Effect of doping mediated oxygen vacancies on the charge transfer ability of zinc oxide nanosheets for electrochemical glucose sensing

Saptaka Baruah, Bidyarani Maibam, Jyoti Jaiswal, Ankit Kumar and Sanjeev Kumar*



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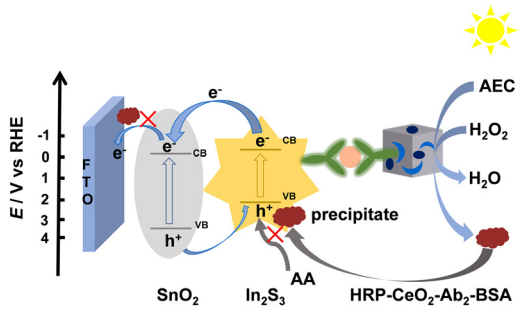

Photoelectrochemical immunoassay of alpha-fetoprotein based on a SnO_2/In_2S_3 heterojunction and an enzyme-catalyzed precipitation strategy

Lu Li, Yaqing Weng, Chenglong Sun, Yueyi Peng* and Qingji Xie*

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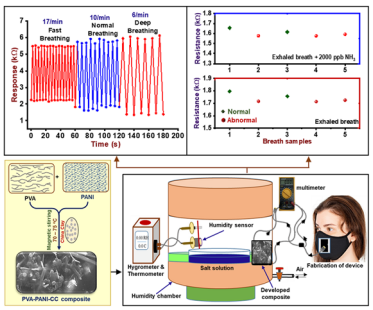

Chemiresistive sensor for breath frequency and ammonia concentration in exhaled gas over a PVA/PANI/CC composite film

Sandeep Kumar, Chandra Shekhar Kushwaha, Pratibha Singh, Kritika Kanojia and Saroj Kr Shukla*

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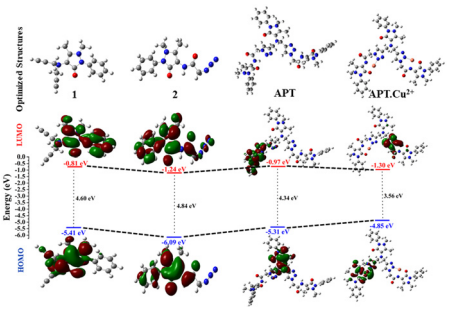

A selective chemosensor *via* click chemistry for Cu^{2+} and Hg^{2+} ions in organic media

Sachin Kumar, Bajrang Lal, Ram Kumar Tittal,* Gurleen Singh, Jandeep Singh, Ghule Vikas D., Renu Sharma and Jagjivan K. Sabane

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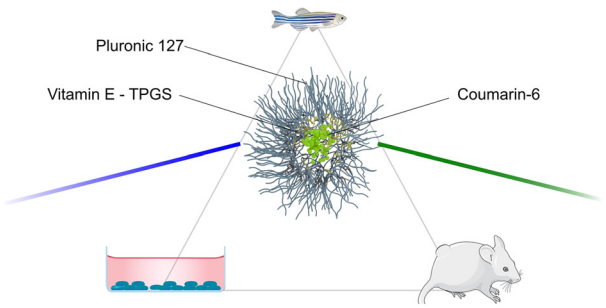

Photophysical and biological assessment of coumarin-6 loaded polymeric nanoparticles as a cancer imaging agent

Yiota Gregoriou,* Gregoria Gregoriou, Andreas Manoli, Paris Papageorgis, Benedict Mc Larney, Despoina Vangeli, Sarah McColman, Vural Yilmaz, Hsiao-ting Hsu, Magdalena Skubal, Anuja Ogirala, Evangelia Athanasiou, David T. Cramb, Nikolas Dietis, Katerina Strati, Grigorios Itskos, Andreas I. Constantinou and Chrysafis Andreou*

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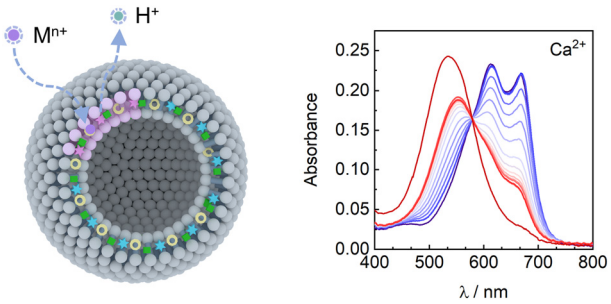
Polymersome-based ion-selective nano-optodes containing ionophores

Yunxin Cui, Jingying Zhai, Yifu Wang and Xiaojiang Xie*



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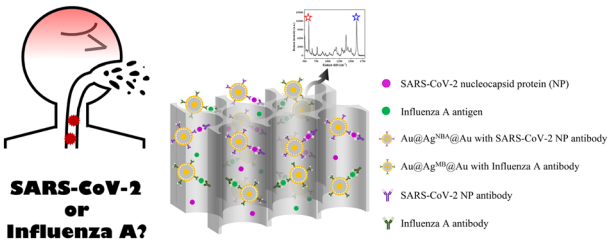
Rapid and simultaneous detection of SARS-CoV-2 and influenza A using vertical flow assay based on AAO and SERS nanotags

Yu Lu, Ruihua Fei, Jiahe Zhang, Geng Zhu, Xiufang Mo, Yu Wan, Yan Huang, Qingjiang Sun, Dianhuai Meng* and Xiangwei Zhao*



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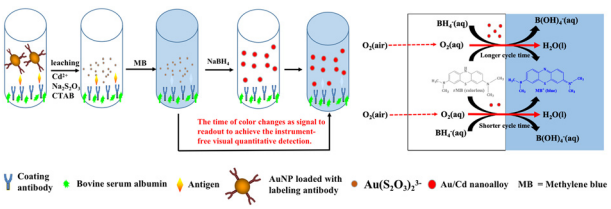
A new detection mode for gold nanoparticle-linked immunosorbent assay (GNLISA) based on a clock reaction: instrument- and enzyme-free visual quantitative detection of prostate-specific antigen (PSA)

Tianxiang Wu* and Xiao-Yuan Li



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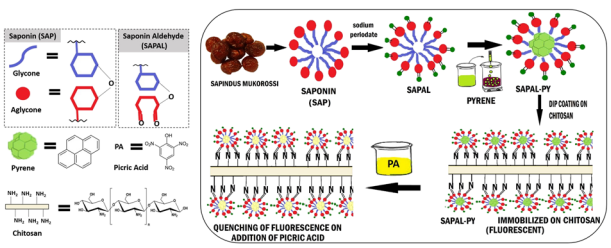
A water soluble fluorescent probe for selective and sensitive detection of picric acid – a nitroexplosive

Porchezhiyan Vadivel, Kalaivani Dayanidhi and Noorjahan Sheik Eusuff*