

# Sensors & Diagnostics

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### Cover

See Aidana Beisenova *et al.*, pp. 1186–1198.  
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### Inside cover

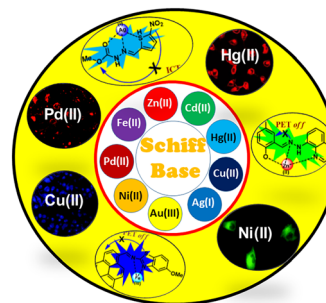
See Sankarasekaran Shanmugaraju *et al.*, pp. 1158–1175.  
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### An overview of Schiff base-based fluorescent turn-on probes: a potential candidate for tracking live cell imaging of biologically active metal ions

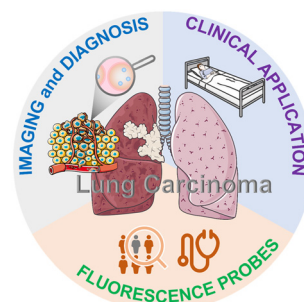
A. Afrin, Anjitha Jayaraj, M. S. Gayathri and Chinna Ayya Swamy P.\*



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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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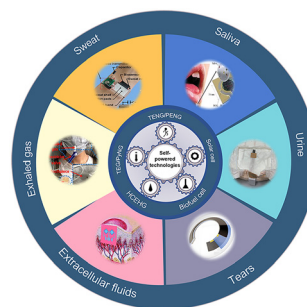


## CRITICAL REVIEWS

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**Self-powered sensors for biomarker detection**

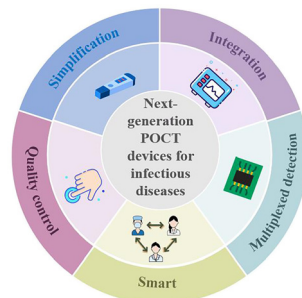
Jiaxuan Li, Lingling Xu, Yang Zou and Zhou Li\*



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

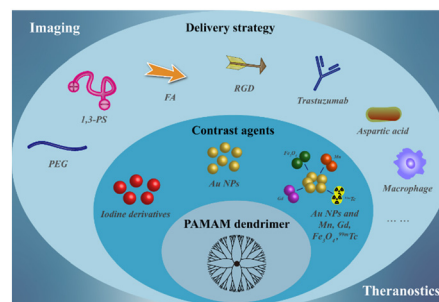
Meiyun Shang, Jiuchuan Guo and Jinhong Guo\*



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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\*

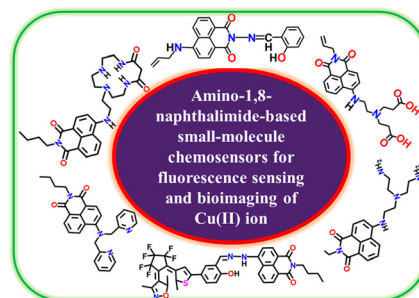


## TUTORIAL REVIEW

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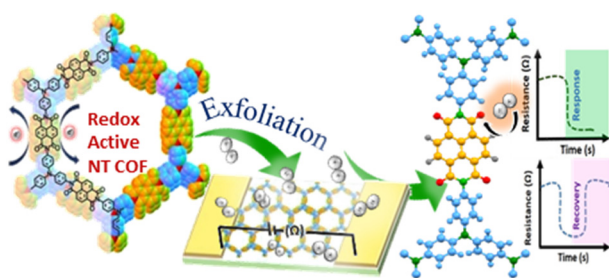
**Fluorescence sensing and bioimaging of Cu(II) ions using amino-1,8-naphthalimide-based small-molecule chemosensors**

Binduja Mohan, Noushija Mannanthara Kunhumon and Sankarasekaran Shanmugaraju\*



## COMMUNICATIONS

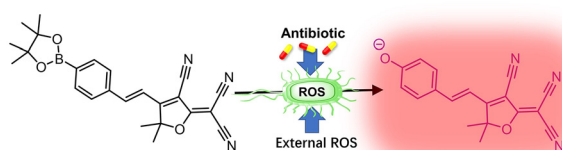
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### An exfoliated redox active imide covalent organic framework for metal free hydrogen gas sensing

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

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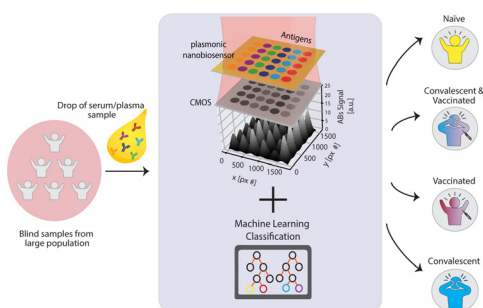


### Repurposing a long-wavelength fluorescent boronate probe for the detection of reactive oxygen species (ROS) in bacteria

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

## PAPERS

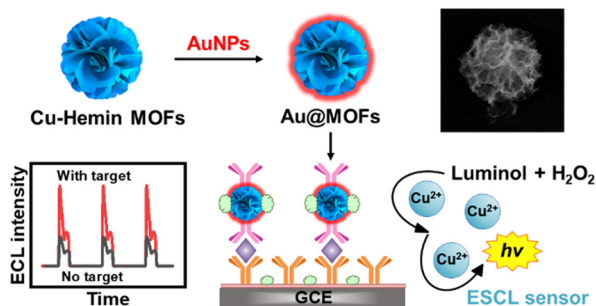
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### Machine-learning-aided multiplexed nanoplasmonic biosensor for COVID-19 population immunity profiling

Aidana Beisenova, Wihan Adi, S. Janna Bashar, Monniresh 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\*

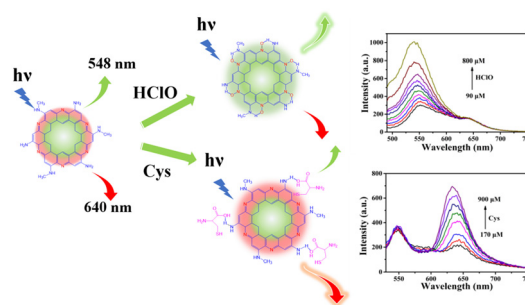


## PAPERS

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# A fluorescence “turn-on” probe for the respective ratiometric detection of hypochlorite and cysteine

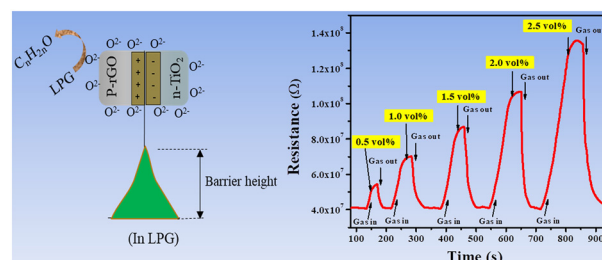
Zhizhen Wu, Muzi Cai, Wenjuan Lv, Cancan Lu, Bingyan Wu, Cuiling Ren,\* Yalei Dong,\* Hongli Chen and Xingguo Chen



1215

# A highly sensitive room temperature liquefied petroleum gas (LPG) sensor with fast response based on a titanium dioxide (TiO<sub>2</sub>)-reduced graphene oxide (r-GO) composite

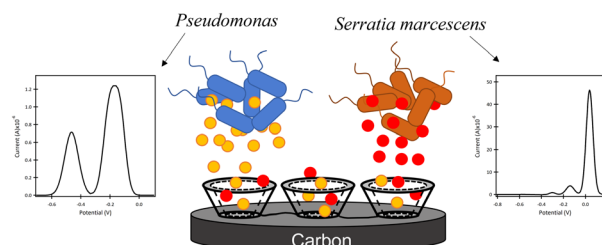
Navin Chaurasiya, Ajeet Singh, Kuldeep Kumar, Bal Chandra Yadav, Pramod Kumar Yadawa,\* Sandip Kumar Singh and Kajal Kumar Dey\*



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

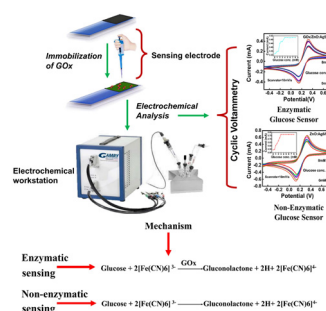
Niloofar Haghighian and Ritu Katakya\*



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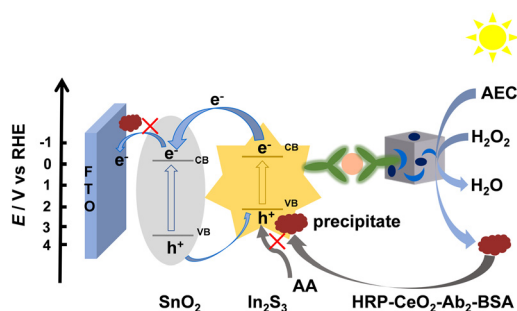
# Effect of doping mediated oxygen vacancies on the charge transfer ability of zinc oxide nanosheets for electrochemical glucose sensing

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





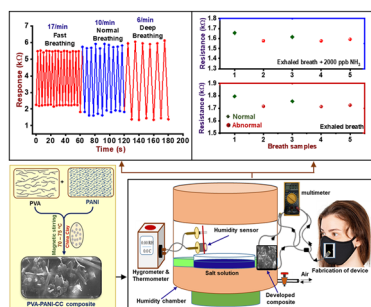
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### Photoelectrochemical immunoassay of alpha-fetoprotein based on a $\text{SnO}_2/\text{In}_2\text{S}_3$ heterojunction and an enzyme-catalyzed precipitation strategy

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

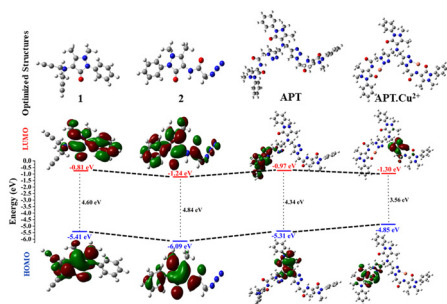
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### Chemiresistive sensor for breath frequency and ammonia concentration in exhaled gas over a PVA/PANI/CC composite film

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

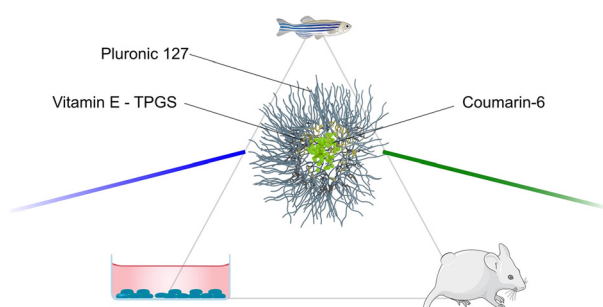
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### A selective chemosensor *via* click chemistry for $\text{Cu}^{2+}$ and $\text{Hg}^{2+}$ ions in organic media

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\*

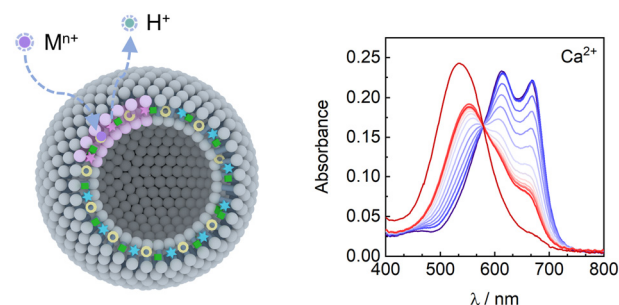


## PAPERS

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# Polymersome-based ion-selective nano-optodes containing ionophores

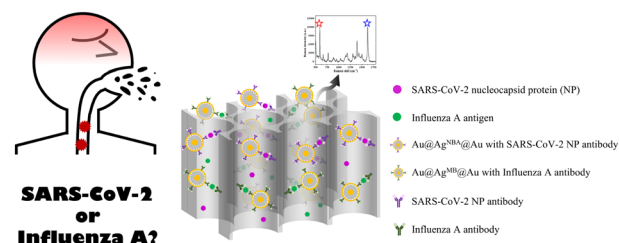
Yunxin Cui, Jingying Zhai, Yifu Wang and Xiaojiang Xie\*



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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

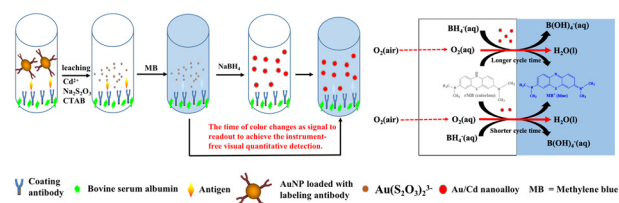
Yu Lu, Ruihua Fei, Jiahe Zhang, Geng Zhu, Xiufang Mo, Yu Wan, Yan Huang, Qingjiang Sun, Dianhuai Meng\* and Xiangwei Zhao\*



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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\*

