

# Analyst

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ISSN 0003-2654 CODEN ANALAO 150(23) 5115-5364 (2025)



### Cover

See Johannes Walter *et al.*, pp. 5147–5165.

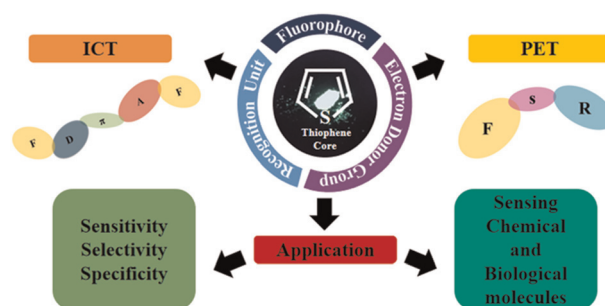
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## CRITICAL REVIEW

5124

### An overview of utilising photo-tunable thiophene scaffolds as luminogens for chemical and biological sensing: progress and prospects

Aakash Venkatesan, Anila Rose Cherian and Aatika Nizam\*



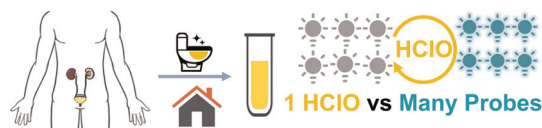
## COMMUNICATION

5142

### Hypochlorite-activated analyte-replacement fluorogenic probes for minute-level fast detection of acute kidney injury

Tingfei Xie, Jiahui Chen, Xiaolu Sui, Yanzi Zhang, Jiqiang Liu, Jinxin Zhang, Xuechuan Hong, Daoyong Jiang,\* Pengfei Zhang\* and Jihong Chen\*

#### Acute Kidney Injury Detection Based on Analyte Replacement



	Traditional	VS	This work
Location:	<input checked="" type="checkbox"/> Hospital		<input checked="" type="checkbox"/> Home
Time:	<input checked="" type="checkbox"/> ~ hours		<input checked="" type="checkbox"/> ~ Minutes
Sample:	<input checked="" type="checkbox"/> Blood		<input checked="" type="checkbox"/> Urine
Method:	<input checked="" type="checkbox"/> Equipment		<input checked="" type="checkbox"/> Camera



# RSC Applied Interfaces

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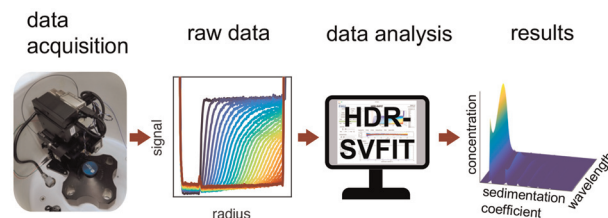
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Fundamental questions  
Elemental answers

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### Global analysis of sedimentation velocity data sets from multiwavelength analytical ultracentrifugation experiments using enhanced regularisation techniques

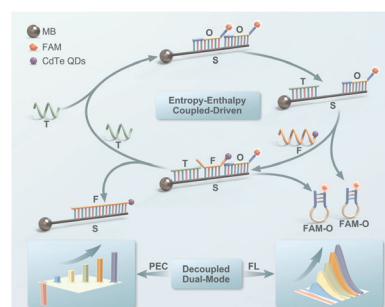
Christina Spruck, Lukas Pflug and Johannes Walter\*



5166

### An entropy–enthalpy co-driven independent dual-mode biosensor

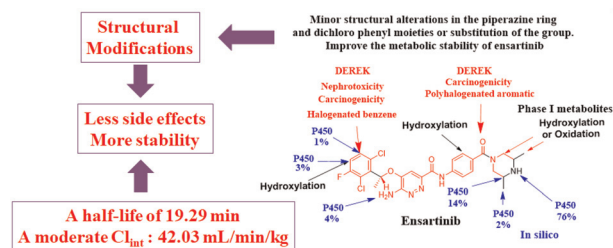
Xu-Fei Sun, Yuqi Luo, Xunan Dong, Hu Luo\* and Ke-Jing Huang\*



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### Development and validation of a quick and sensitive UPLC-MS/MS method for measuring ensartinib in HLMs: investigation of structural alerts associated with metabolic lability and *in silico* toxicity

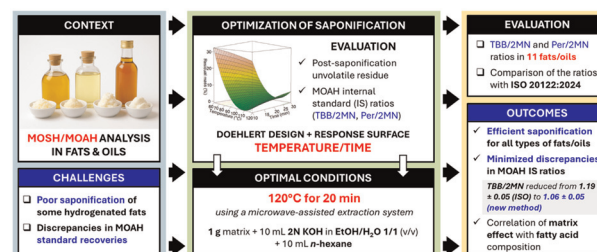
Mohamed W. Attwa,\* Ali S. Abdelhameed, Awadh M. Ali, Haitham AlRabiah and Adnan A. Kadi



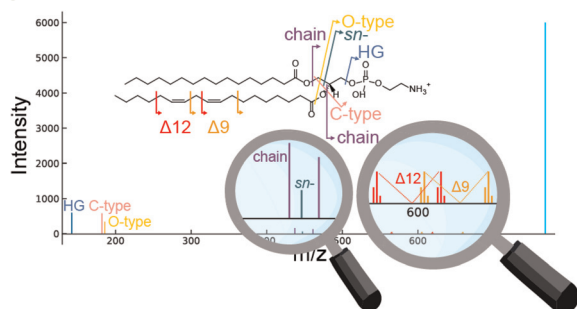
5190

### Update on the microwave-assisted saponification conditions for mineral oil hydrocarbons determination in fats and oils

Aleksandra Gorska, Donatella Ferrara, Paula Albendea, Chiara Emilia Cordero and Giorgia Purcaro\*



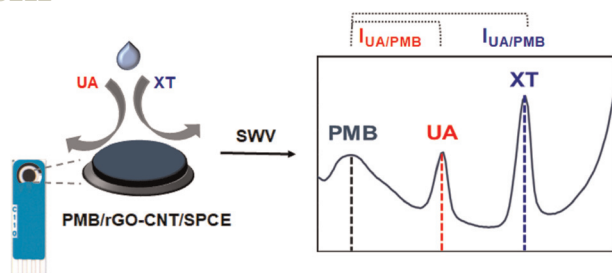
5201



### Optimisation of electron-induced dissociation parameters for molecular annotation of glycerides and phospholipids in fast LC-MS

Vincen Wu, Abraham Moyal, Alaa Othman and Nicola Zamboni\*

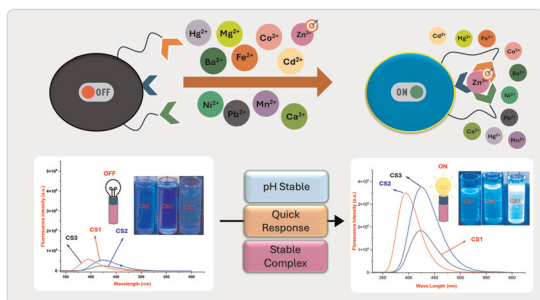
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### Ratiometric and simultaneous electrochemical analysis of uric acid and xanthine using poly(methylene blue) and reduced graphene oxide nanocomposite-modified screen-printed electrode

Geun Dae Kim, Sang Hyun Cho and Gi-Ja Lee\*

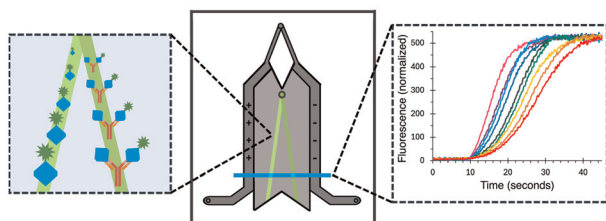
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### $\beta$ -Carboline platform-based novel fluorescent probes for the selective detection of zinc ions: synthesis, live-cell imaging and computational studies

Muhammad Ashraf, Mochamad Lutfi Firmansyah, Safwat Abdel-Azeim, Raden J. K. Susilo, Suhailah Hayaza and Nisar Ullah\*

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### Identifying and minimizing primary sources of temporal broadening in online affinity micro free-flow electrophoresis

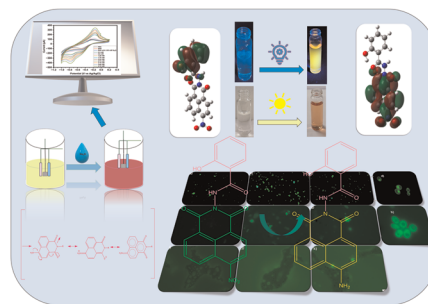
Gretchen S. Burke and Michael T. Bowser\*



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### A multifunctional probe for optical and electrochemical detection of hydrogen sulfide and real-time selective fungal imaging

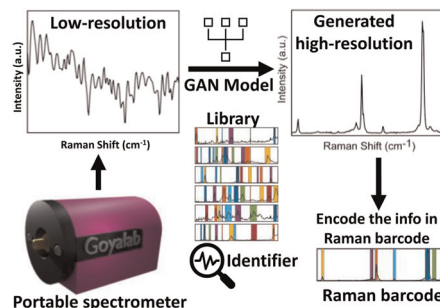
Ranjana M., Namita N. Kashyap, Dhanya Sunil,\*  
Anshuman Bera, Prajoy Kumar Mitra, Prakash Peralam  
Yegneswaran, Sudhakar Y. N., Dinesh Upadhy,  
Suresh D. Kulkarni and Sivaranjana Reddy Vennapusa



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### Generative Adversarial Network-driven high-resolution Raman spectral generation for accurate molecular feature recognition

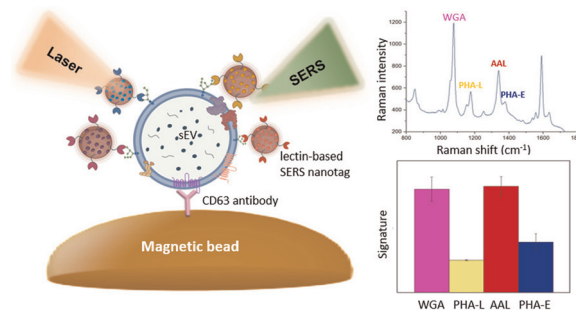
Vikas Yadav, Abhay Kumar Tiwari and  
Soumik Siddhanta\*



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### Lectin-enabled glycan signature of small extracellular vesicles by surface-enhanced Raman spectroscopy

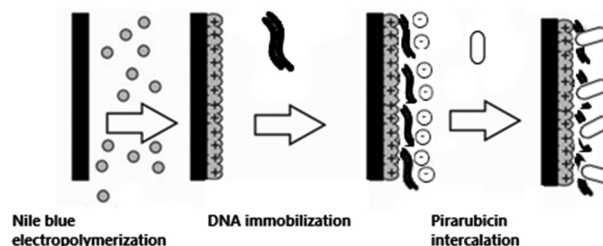
Wei Zhang, Edward S. X. Moh, Mingkai Wu,  
Nicolle H. Packer and Yuling Wang\*



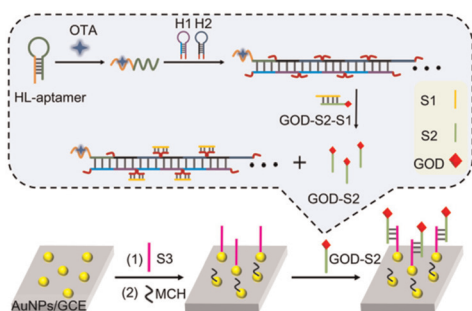
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### Pirarubicin determination with impedimetric and voltammetric DNA sensors based on poly(Nile Blue) electropolymerized from deep eutectic solvents

Kadriya Vakhidova, Anastasia Goida, Tatiana Krasnova,  
Rezeda Shamagsumova, Vladimir Evtugyn and  
Anna Porfireva\*



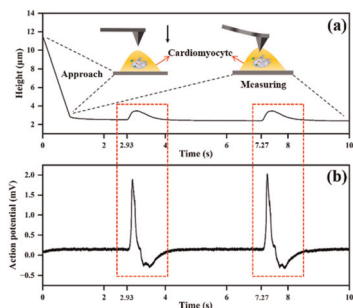
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### Coupling a target-triggered hybridization chain reaction to a glucose/oxygen biofuel cell for sensitive self-powered detection of ochratoxin A

Shihan Liu, Shihua Wang, Wenfang Deng,\*  
Qingfang Zhang\* and Yueming Tan\*

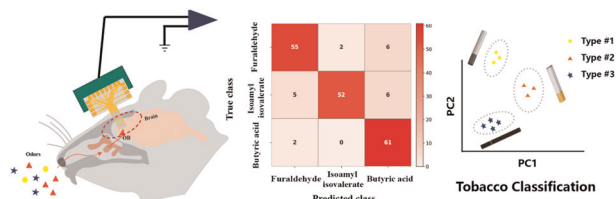
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### Effect of AFM-based electrical stimulation on the electrophysiological and mechanical characteristics of cardiomyocytes

Jianjun Dong, Bowei Wang, Jinhong Fu, Yan Li,  
Tianzhu Yu, Xia Wang, Fengyan Hou, Junxi Wang and  
Zuobin Wang\*

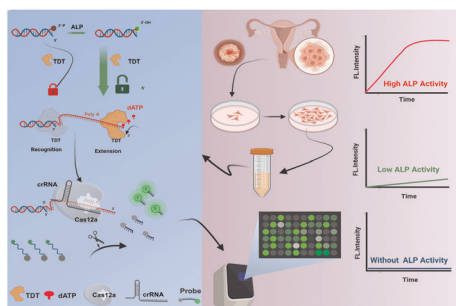
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### A bioelectronic nose with a flexible and implantable neural interface for odor detection and tobacco evaluation

Fan Wu, Jiale Wang, Wei Zhang, Yajie Zhang,  
Haoting Zhang, Zhichao Huang, Qifei Wang, Hao Wan,\*  
Ping Wang,\* Qunchen Yuan\* and Liuqing Zhuang\*

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### TdT/Cas12a cascade amplification biosensor for sensitive ALP activity detection

Chengbin Pei, Bei Yan,\* Yan Wang, Ting Chen,  
Kunhao Du, Lianghong Ma\* and Juan Wang\*



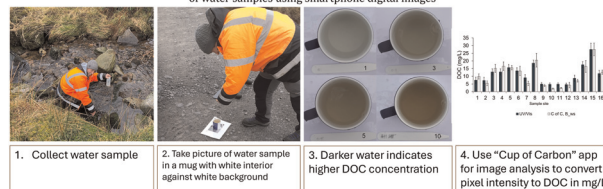
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## Cup of Carbon: smartphone-based analysis of dissolved organic carbon in water for use in citizen science

Michael R. Muir,\* Adrian M. Bass, Kenny Galt, Kerry Morrison, Lewis Robertson and Emily Taylor

### Cup of Carbon

Estimation of the Dissolved Organic Carbon (DOC) concentration of water samples using smartphone digital images



5351

## Ratiometric detection of human serum albumin using an aggregation-induced enhanced emission-conjugated polyelectrolyte and a prototype smartphone device

Moirangthem Anita Chanu, Dheeraj Dineshbhai Khubchandani, Laxmi Raman Adil, Priyam Ghosh and Parameswar Krishnan Iyer\*

