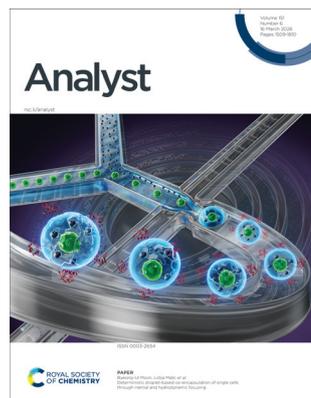# Analyst

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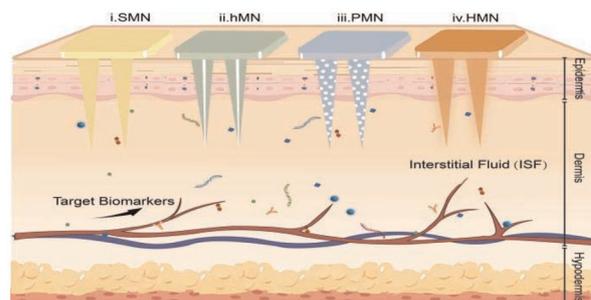## IN THIS ISSUE

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See Byeong-Ui Moon,
Lidija Malic *et al.*,
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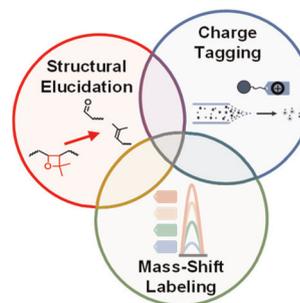
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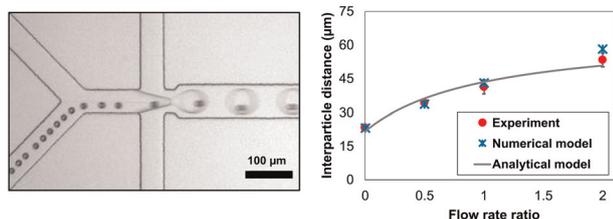
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Deep eutectic solvents in molecularly imprinted materials: a comprehensive review of functional roles and recent advances

Dongdong Cheng, Xin Wang, Jia Li,* Yongquan Dai, Pen Jin, Yi Li, Lina Lu, Xingping Luo, Jun Lin, Zegen Wang, Binlian Jiang, Xiaodong Wei, Zhijun Wang and Shuo Feng

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PFAS isomers in aquatic biota: revealing differences in occurrence, bioaccumulation, and biotransformation through isomer-specific analysis

Mindula K. Wijayahena and Diana S. Aga*

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Recent developments in micro- and nanofluidic catalytic reactors utilizing ultra-small spaces

Ben-Yuan Zhang, Koki Yamamoto, Po-Yen Chen and Kyojiro Morikawa*

COMMUNICATION

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Sequentially activated fluorescent probes based on a purine scaffold: enabling precise spatiotemporal monitoring of H_2O_2 and tyrosine hydroxylase in the brainstem NTS during spontaneous hypertension

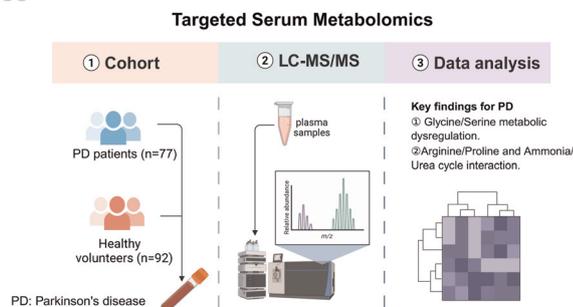Yang Yu, Jia-Yi Yao, Xiao-Qi Yu, Kun Li* and Kang-Kang Yu*

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Deterministic droplet-based co-encapsulation of single cells through inertial and hydrodynamic focusing

Byeong-Ui Moon,* Lidija Malic,* Dillon Da Fonte, Liviu Clime, Félix Lussier, Ljuboje Lukic, David Juncker and Teodor Veres
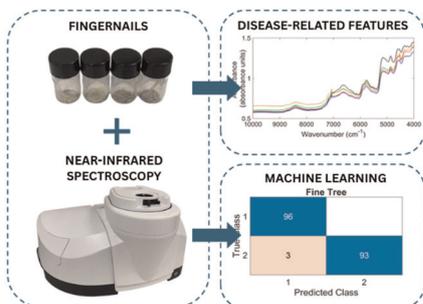
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Targeted serum metabolomics reveals alterations in amino acid and neurotransmitter pathways in Parkinson's disease

Jiaxin Yang, Dong Wu, Zhiwei Wang, Zhijing Zhang, Xiaowen Zheng, Sheng Wang, Fen Huang, Shuai Song* and Qunlin Zhang*
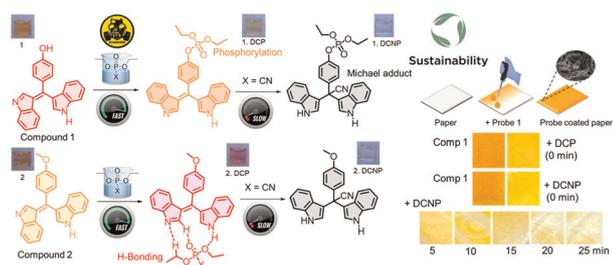
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Exploring the feasibility of near-infrared spectroscopy and machine learning for detecting cardiovascular diseases and diabetes mellitus in fingernails

Megan Wilson,* Dhiya Al-Jumeily, Jason Birkett, Iftikhar Khan, Ismail Abbas, Matthew Harper and Sulaf Assi

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Sustainable, biodegradable paper sensor functionalized with oxidised bis(indolyl)methane for temporal discrimination of hazardous organophosphorus simulants in aqueous media
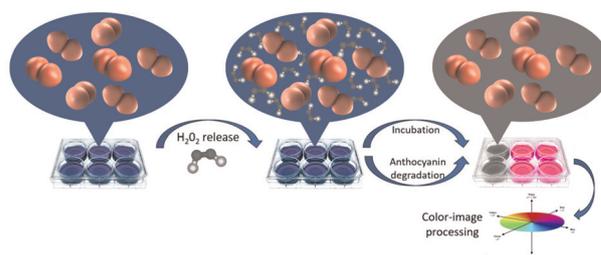
Rikitha S. Fernandes and Nilanjan Dey*

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Rapid and colorimetric assay for the detection of *S. pneumoniae* based on hydrogen peroxide release and analysis using color image processing

Cagla Celik Yoldas,* Nimet Temur, Nilay Ildiz, Pinar Sagiroglu, Mustafa Altay Atalay, Ali Yilmaz, Ersen Gokturk and Ismail Ocsoy

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Thermal desorption–photoionization ion mobility spectrometry for rapid analysis of tobacco flavorings and flavored filters

Yajin He, Yating Yao, Yue Zhang, Yawen Guo, Huaiwen Cang, Weiguo Wang, Jinghua Li, Bing Wang, Shuang Wang* and Wuduo Zhao*
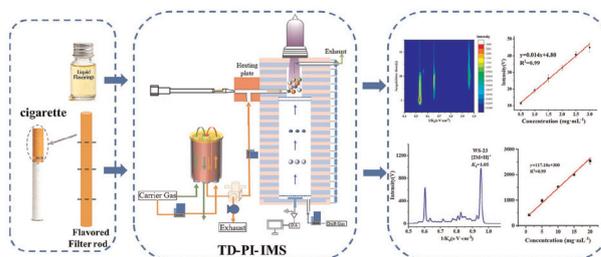
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DL-assisted self-volume-calibrating colorimetric PAAHM sensors for water surveillance

Miaorong Lin, Jihan Qu, Ting Xiao, Tingting Yang, Jiahui Chen, Jianxin Meng* and Fengyu Li
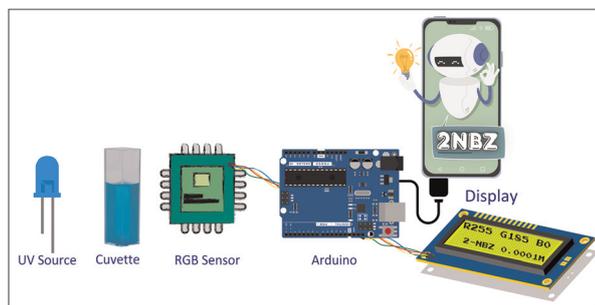
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Rapid screening of commercial CBD oils by heat-assisted dielectric barrier discharge ionization (HA-DBDI) mass spectrometry and correlation-based fingerprinting

Odhisea Gazeli, Marios C. Christodoulou, Nikolaos Argirusis, George E. Georghiou, Efstathios A. Elia* and Agapios Agapiou
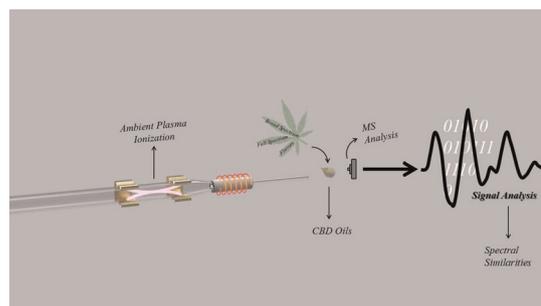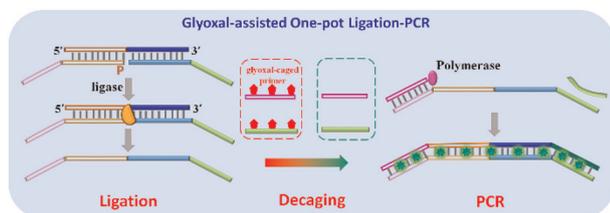
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Molecular recognition meets microcontroller: calixarene-based fluorescent sensors for selective detection of 2-nitrobenzaldehyde

Ronak S. Patel, Priyanka A. Chavda, Zalak G. Thakker, Disha H. Patel, Meet K. Panchal, Rachit V. Patel and Hitesh M. Parekh*
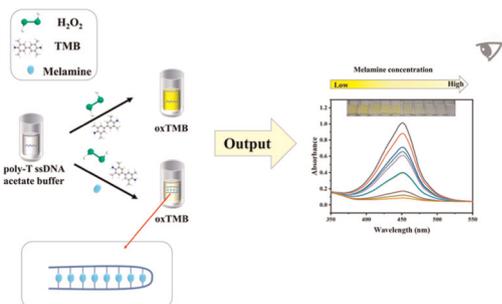
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One-pot ligation-PCR for universal RNA biomarker detection

Jinding Liu, Zhixin Xie, Nini Li, Jiajia Li, Minghua Zhang,* Yongqiang Cheng* and Jiangyan Zhang*
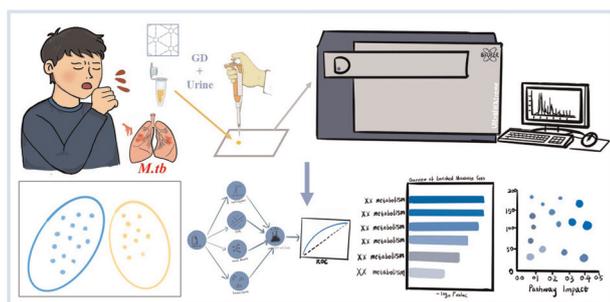
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Structure-adaptive dual-function poly-T sequences enable a homogeneous label-free colorimetric sensing platform

Shao-Yu Sun, Yi Song, An-Qi Xiao, Xin-Yan Zhang, Xu-Xia Yan, Hui-Dong Qiu and Qian-Yu Zhou*

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### Graphdiyne-assisted LDI-MS for rapid, non-invasive urine metabolomic profiling in tuberculosis screening

Yile Yu, Xiaoyan Zhong, Xi Yu, Jinhang Li, Huihui Liu, Xin Liu,* Lixia Jiang* and Zongxiu Nie*

PAPERS

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Differences in α-synuclein conformational states in physiologically relevant pH/Na⁺ concentrations and ammonium acetate solutions unveiled by native mass spectrometry
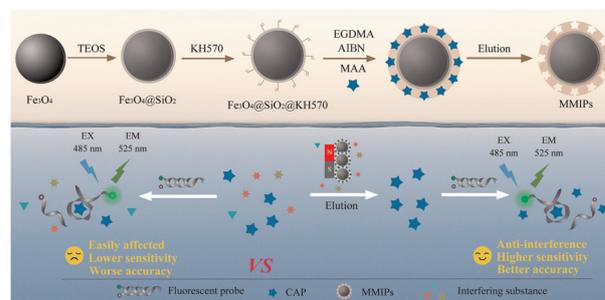
Erick G. Báez Bolívar, Jessica S. Fortin, Taiwo A. Ademoye and Scott A. McLuckey*
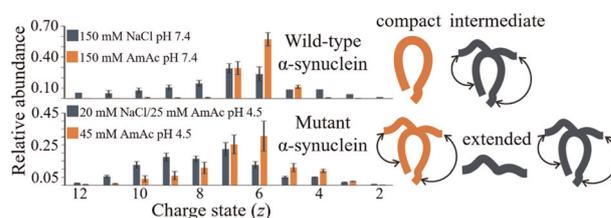
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Magnetic molecularly imprinted polymer-assisted target enrichment for the fluorescence detection of chloramphenicol in water

Zan Long, Jiajun Guo, Xiaofeng Liu, Caicheng Long, Peng Zhang, Bo Feng and Taiping Qing*

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Optical photothermal infrared spectroscopic assessment of microplastics in tissue models and non-digested human tissue sections
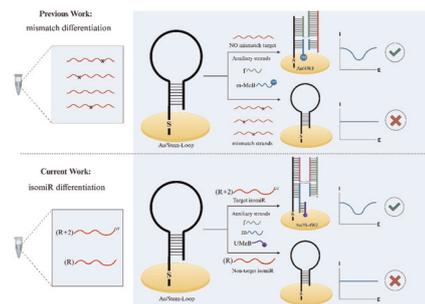
Azita HassanMazandarani, John M. Masterson, William Querido, Andrzej Steplewski, Yi Zhang, Carissa Huynh, Maurice M. Garcia, Andrzej Fertala and Nancy Pleshko*
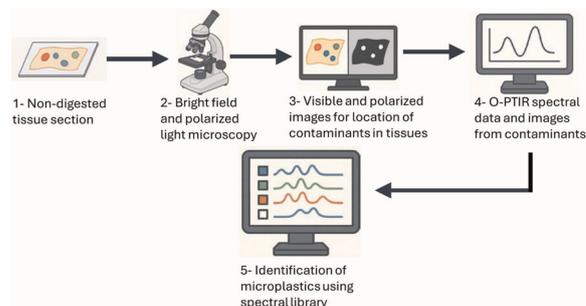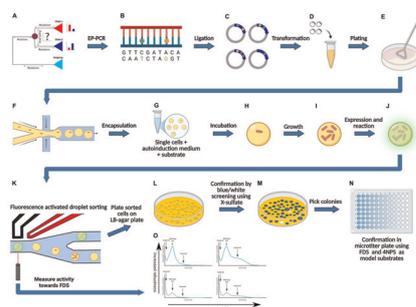

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Selective electrochemical discrimination of 3' isomiRs differing by two nucleotides

Julio Ojeda, Nicholas Bruno, Karen Cover, Wen Cai Zhang and Karin Chumbimuni-Torres*

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Studying the evolutionary potential of ancestral aryl sulfatases in the alkaline phosphatase family with droplet microfluidics

Bernard D. G. Eenink, Josephin M. Holstein, Magdalena Heberlein, Carina Dilkaute, Joachim Jose, Florian Hollfelder, Bert van Loo, Erich Bornberg-Bauer,* Tomasz S. Kaminski* and Andreas Lange*