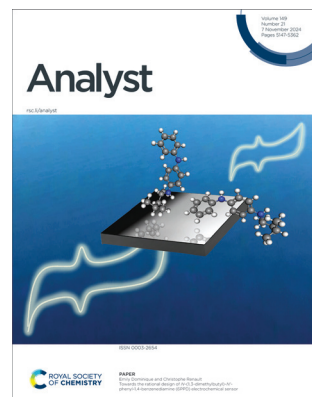


IN THIS ISSUE

ISSN 0003-2654 CODEN ANALAO 149(21) 5147–5362 (2024)



Cover

See Emily Dominique and Christophe Renault, pp. 5165–5173.

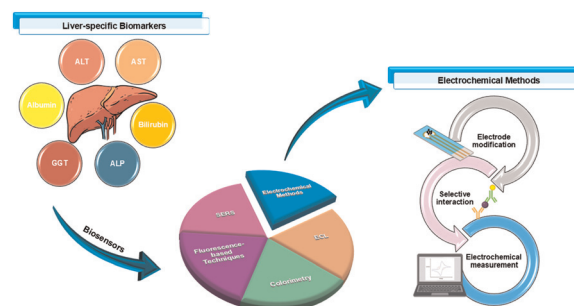
Image reproduced by permission of Christophe Renault and Emily Dominique from *Analyst*, 2024, **149**, 5165. Image partly generated using BRIA AI.

MINIREVIEW

5156

Current trends in electrochemical approaches for liver biomarker detection: a mini-review

Derya Yaman,* Melanie Jimenez, Sofia Ferreira Gonzalez and Damion Corrigan*

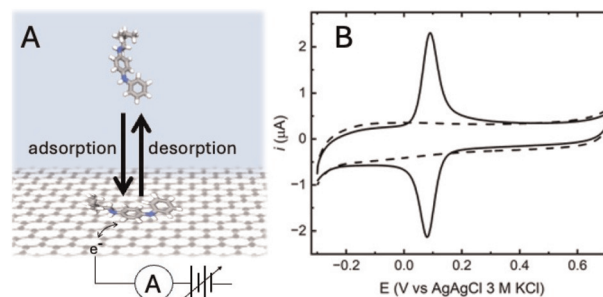


PAPERS

5165

Towards the rational design of *N*-(1,3-dimethylbutyl)-*N*'-phenyl-1,4-benzenediamine (6PPD) electrochemical sensor

Emily Dominique and Christophe Renault*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training

**SAVE
10%**

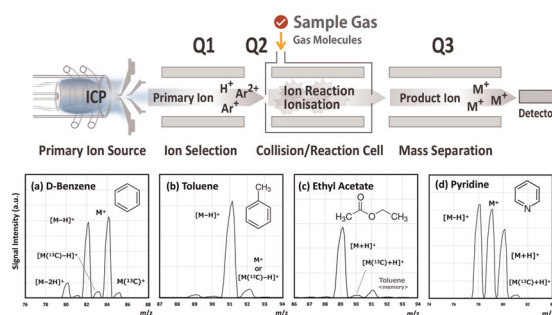


PAPERS

5174

Detection of several volatile organic compounds through Ar^+ induced chemical ionisation using inductively coupled plasma-tandem mass spectrometry (ICP-MS/MS)

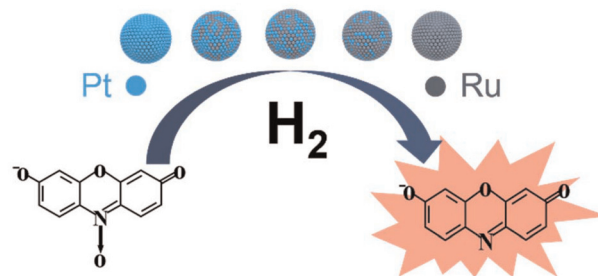
Takafumi Hirata,* Kyoko Kobayashi, Hui Hsin Khoo, Osamu Shikino and Hisashi Asanuma



5184

Revealing the heterogeneous catalytic kinetics of PtRu nanocatalysts at the single particle level

Bowei Zhang, Dezheng Zhang, Jinpeng Bao, Ce Han,* Ping Song* and Weilin Xu*

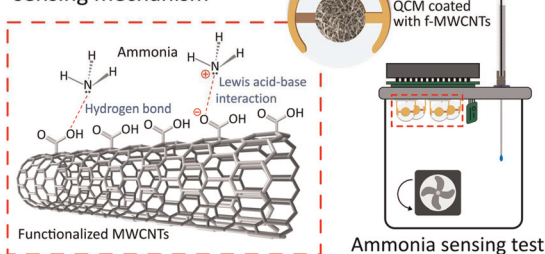


5191

An ultra-sensitive ammonia sensor based on a quartz crystal microbalance using nanofibers overlaid with carboxylic group-functionalized MWCNTs

Ahmad Hasan As'ari, Rizky Aflaha, Laila Katriani, Ahmad Kusumaatmaja, Iman Santoso, Rike Yudianti* and Kuwat Triyana*

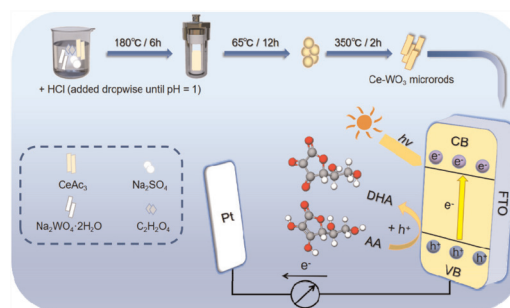
Proposed ammonia sensing mechanism



5206

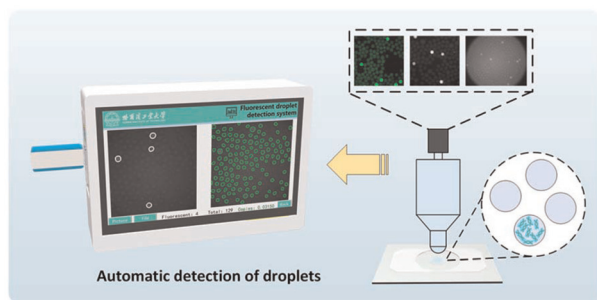
A cerium-doped tungsten trioxide-functionalized sensing platform for photoelectrochemical detection of ascorbic acid with high sensitivity

Xueying Zhu, Tikai Liang and Dianping Tang*



PAPERS

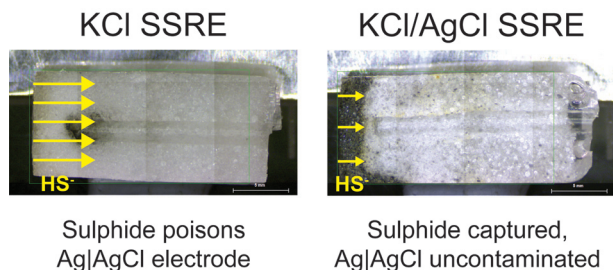
5213



Automatic detection of fluorescent droplets for droplet digital PCR: a device capable of processing multiple microscope images

Kaihao Mao, Ye Tao,* Wenshang Guo, Qisheng Yang, Meiying Zhao, Xiangyu Meng, Yinghao Zhang and Yukun Ren*

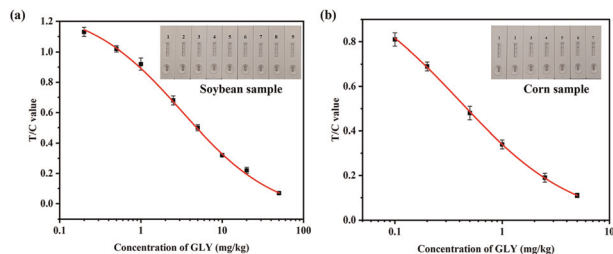
5225



A sulphide resistant Ag|AgCl reference electrode for long-term monitoring

David S. Macedo,* Mikko Vepsäläinen,* Theo Rodopoulos, Stephen Peacock and Conor F. Hogan

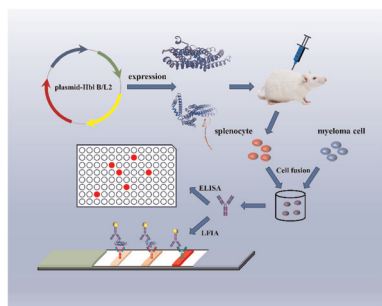
5232



A lateral strip assay for ultrasensitive detection of glyphosate in soybeans and corn

Xuyang Ma, Liqiang Liu, Shanshan Song, Hua Kuang, Chuanlai Xu and Xinxin Xu*

5243



A rapid and ultrasensitive paper sensor for *Bacillus cereus* Haemolysin BL detection

Chunhao Wei, Xinxin Xu, Lingling Guo,* Aihua Qu, Aihong Wu, Chuanlai Xu* and Hua Kuang

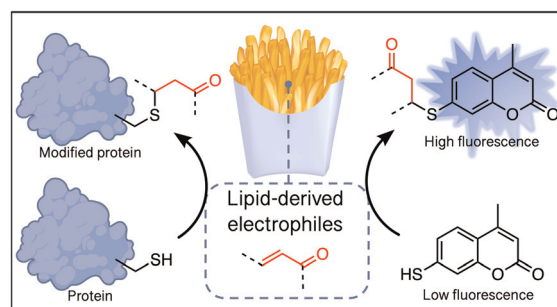


PAPERS

5255

Fluorescent probe to quantify lipid-derived electrophiles in edible oils

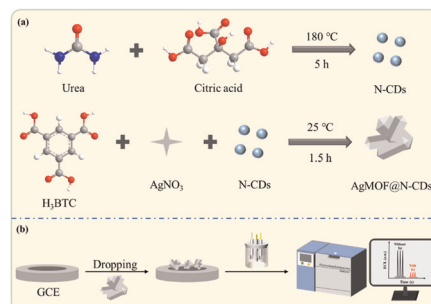
Lucille Kuster, Priscilia Diane Mamboundou, Asma Boushih, Yasmine Rassi, Alexandre Benoît, Samuel Parent-Vézina, Michel Lord-St-Vincent, Jean-Philippe Guillemette and Mathieu Frenette*



5265

A novel electrochemiluminescent sensor based on AgMOF@N-CD composites for sensitive detection of trilobatin

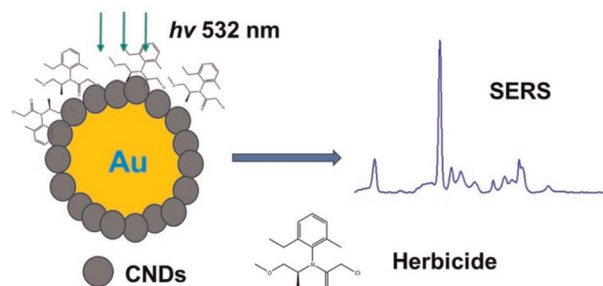
Longmei Yao, Xue Mei, Jiajia Zhi, Wenchang Wang,* Qingyi Li, Ding Jiang, Xiaohui Chen and Zhidong Chen*



5277

Surface-enhanced Raman scattering enhancement using a hybrid gold nanoparticles@carbon nanodot substrate for herbicide detection

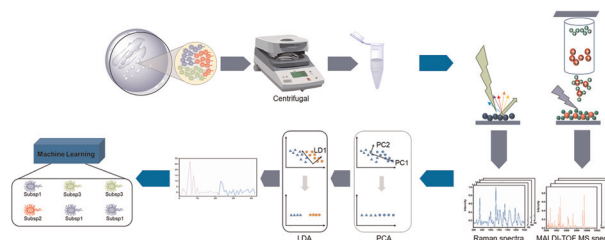
Naghmeh Aboualigaedari, Anitha Jayapalan, Panesun Tukur, Mengxin Liu, Frank Tukur, Yanling Zhang, Gerald Ducatte, Madan Verma, Janet Tarus, Simona E. Hunyadi Murph* and Jianjun Wei*

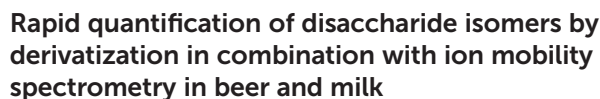


5287

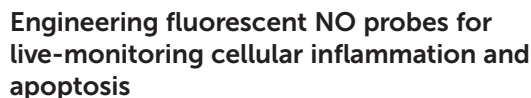
A new fusion strategy for rapid strain differentiation based on MALDI-TOF MS and Raman spectra

Jian Song, Wenlong Liang, Hongtao Huang, Hongyan Jia, Shouning Yang, Chunlei Wang* and Huayan Yang*





5306



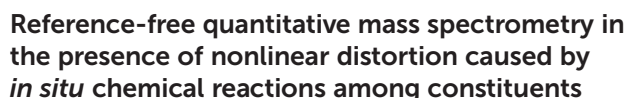
Qun Wu, Chengbin Liu, Yifan Liu and Tao Li*

5313



Wei Xu, Lichun Zou, Haiyan Wang, Changhui Xu,
Qinyang Fan and Jingjie Sha*

5320



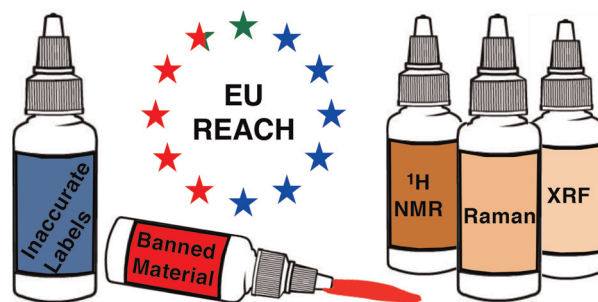
Yusuke Hibi

PAPERS

5329

Analysis of blue and green REACH compliant tattoo inks

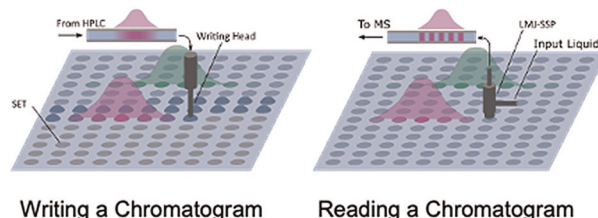
Kelli Moseman, Sasha Noble, Sage Sanders, Huiyuan Guo and John R. Swierk*



5336

Storing liquid chromatographic separations on surface energy traps: decoupling the LC and the mass spectrometer

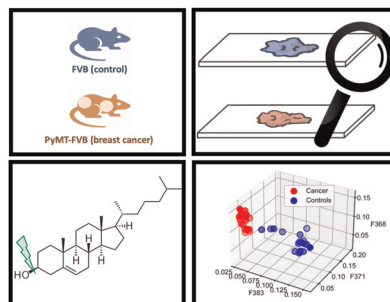
Timothy T. Salomons, David Simon and Richard Oleschuk*



5344

Alterations of the chemical profile of cholesterol in cancer tissue as traced with ToF-SIMS

Auraya Manaprasertsak, Julhash U. Kazi, Catharina Hagerling, Kenneth J. Pienta, Per Malmberg and Emma U. Hammarlund*



5353

A highly sensitive and reproducible fluorescence sensor for continuously measuring hydrogen peroxide at the sub-ppm level

Yang Yang, Rui Jiang, En-lai Yang, Jiahao Liang, Ying Xu and Xu-dong Wang*

