Open Access Article. Published on 04 July 2024. Downloaded on 12/11/2025 3:55:11 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

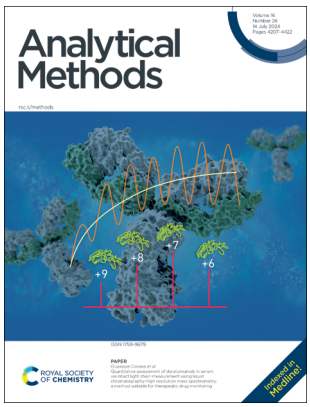
Analytical Methods

rsc.li/methods

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1759-9679 CODEN AMNECT 16(26) 4207–4422 (2024)



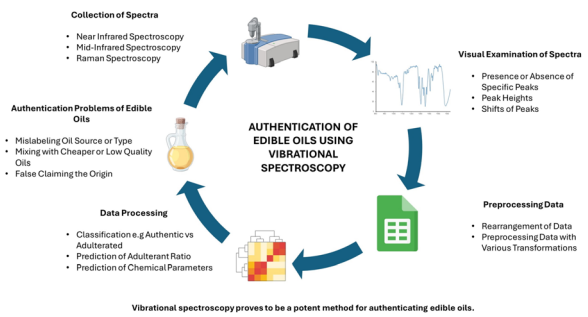
Cover
See Giuseppe Corona *et al.*, pp. 4240–4246. Image reproduced by permission of Giuseppe Corona from *Anal. Methods*, 2024, **16**, 4240.

CRITICAL REVIEW

4216

Trends in authentication of edible oils using vibrational spectroscopic techniques

Banu Ozen,* Cagri Cavdaroglu and Figen Tokatli

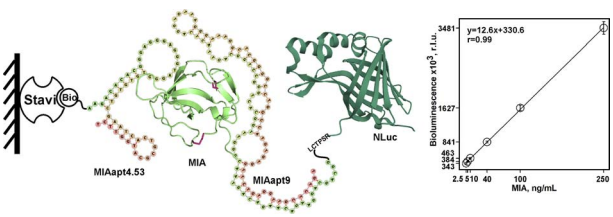


COMMUNICATION

4234

Bioluminescent aptamer-based microassay for detection of melanoma inhibitory activity protein (MIA)

Eugenia E. Bashmakova,* Alexander N. Kudryavtsev, Alexey E. Tupikin, Marsel R. Kabilov, Aleksey E. Sokolov and Ludmila A. Frank



View Article Online

ROYAL SOCIETY OF CHEMISTRY

60 YEARS ANNIVERSARY

ChemComm

Uncover new possibilities with outstanding preliminary research

Original discoveries, fuelling every step of scientific progress

rsc.li/chemcomm

Fundamental questions
Elemental answers

Registered charity number: 207890

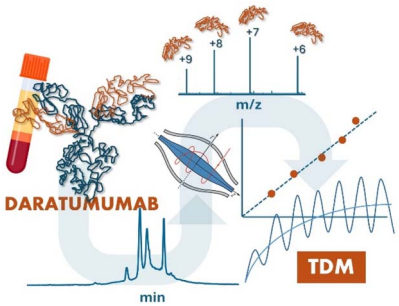
Open Access Article. Published on 04 July 2024. Downloaded on 12/11/2025 3:55:11 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

PAPERS

4240

Quantitative assessment of daratumumab in serum *via* intact light chain measurement using liquid chromatography-high resolution mass spectrometry: a method suitable for therapeutic drug monitoring

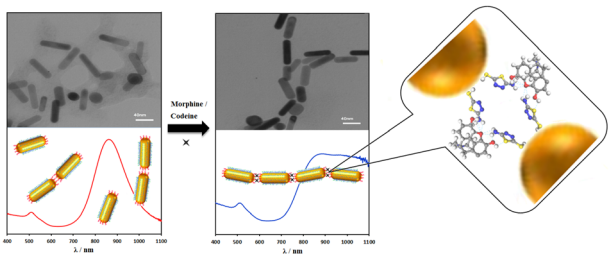
Giovanni Canil, Gianmaria Miolo, Mariapaola Simula, Maurizio Rupolo, Agostino Steffan and Giuseppe Corona*



4247

A near-infrared plasmonic biosensor for detection of morphine and codeine in biological samples based on the end-to-end assembly of modified gold nanorods

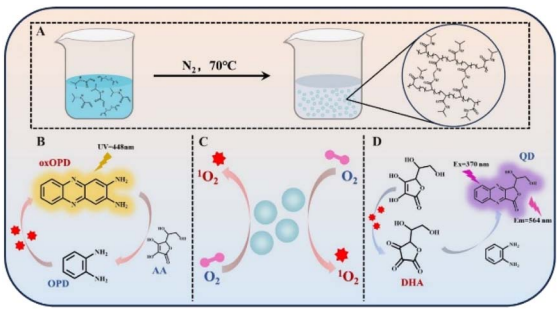
Naimeh Mohseni and Morteza Bahram*



4255

The preparation and dual-mode detection of ascorbic acid based on poly(*N*-isopropylacrylamide) nanogel with oxidase-like activity

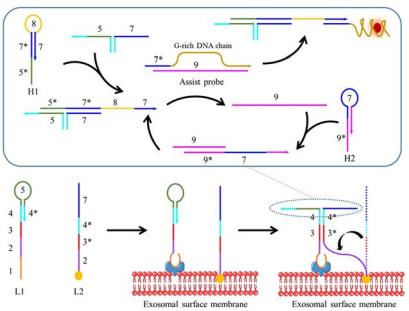
Yuhan Zhang, Qinze Liu,* Qian Lu,* Zhi-zhou Yang, Sheng Gao and Xian Zhang*



4262

A proximity ligation hybridization triggered structure-switching based signal amplification strategy for sensitive and accurate exosome detection

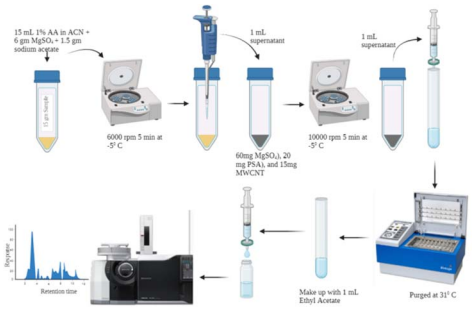
Wendi Yang, Jing Yang, Na Zhou* and Yali Wang*



Open Access Article. Published on 04 July 2024. Downloaded on 12/11/2025 3:55:11 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

PAPERS

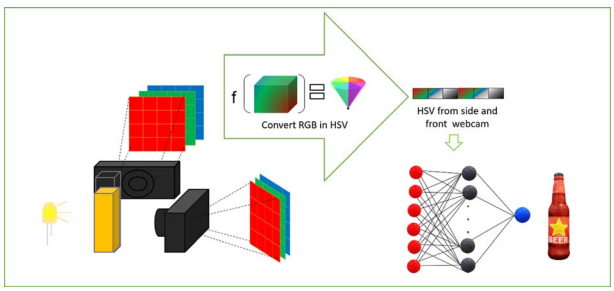
4268



Multivariate optimization and validation of 200 pesticide residues in the banana matrix by GC-MS/MS

Tushar Rajaram Ahire, Rupal Rajesh Thasale, Ankita Das, Nikhil Pradip Kulkarni, Dhyan Mineshkumar Vyas and Sivaperumal Perumal*

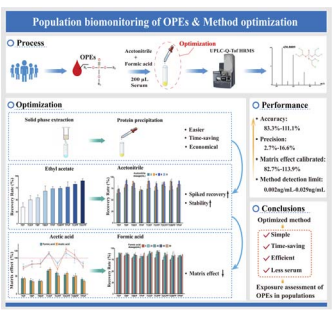
4285



Computer vision with artificial intelligence for a fast, low-cost, eco-friendly and accurate prediction of beer styles and brands

João Victor de Sousa Dutra, Maiara Oliveira Salles, Ricardo Cunha Michel and Daniella Lopez Vale*

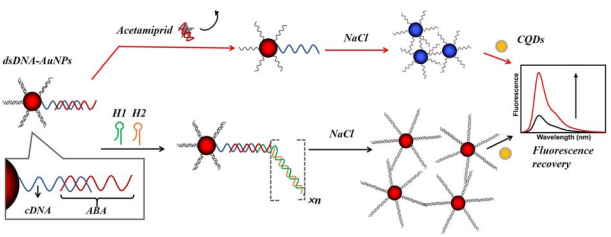
4291



Organophosphate esters in human serum: a relatively simple and efficient liquid chromatography-mass spectrometry method

Zhiyuan Du, Xiaoyi Wei, Xiaohua Hu, Yijing Zhao, Guanghua Chen, Xiushuai Du, Jialing Li,* Ming Zhan* and Weiwei Zheng*

4301



Enhanced detection of acetamiprid *via* a gold nanoparticle-based colorimetric aptasensor integrated with a hybridization chain reaction

Xingyi Liu, Mingming Li, Hao Wang and Limin Yang*

This journal is © The Royal Society of Chemistry 2024

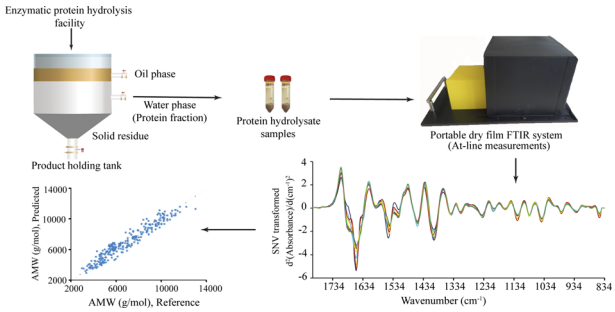
Open Access Article. Published on 04 July 2024. Downloaded on 12/11/2025 3:55:11 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

PAPERS

4310

A portable dry film FTIR instrument for industrial food and bioprocess applications

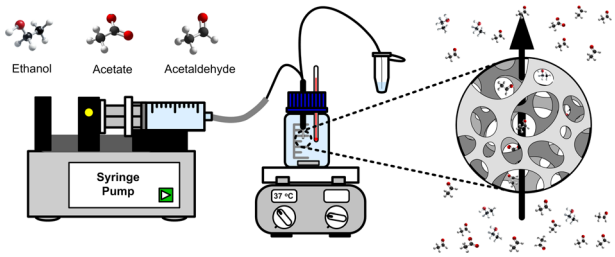
Bijay Kafle,* Sileshi Gizachew Wubshet, Kari Anne Hestnes Bakke, Ulrike Böcker, Marion O'Farrell, Katinka Dankel, Ingrid Måge, Jon Tschudi, Dimitrios Tzimorotas, Nils Kristian Afseth and Tim Dunker



4322

Experimental and numerical investigation of microdialysis probes for ethanol metabolism studies

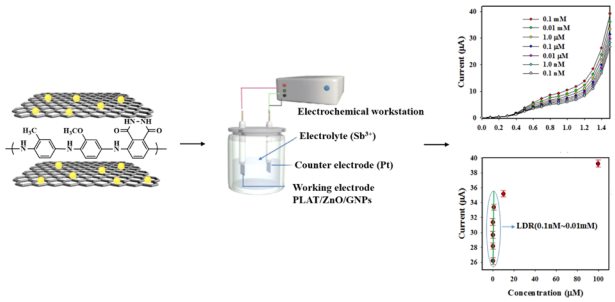
Tse-Ang Lee, Jessie Peng, Divjot Walia, Rueben Gonzales and Tanya Hutter*



4333

Development of an efficient electrochemical sensing platform based on ter-poly(luminol-*o*-anisidine-*o*-toluidine)/ZnO/GNPs nanocomposites for the detection of antimony (Sb^{3+}) ions

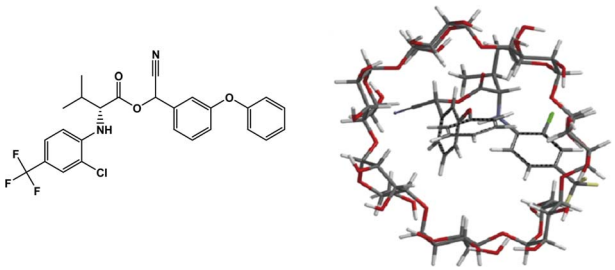
Salsabeel Al-Sodies, Abdullah M. Asiri, M. M. Alam, Khalid A. Alamry, Mohammed M. Rahman* and Mahmoud A. Hussein*



4347

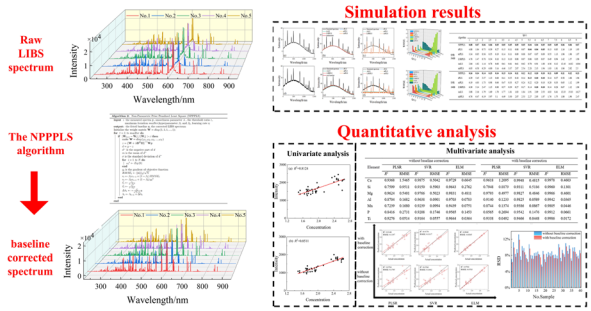
Cyclodextrin-enhanced photo-induced fluorescence of *tau*-fluvalinate, molecular modelling of inclusion complexes and determination in natural waters

El Hadji Tombé Bodian, Coumba Faye, Diène Diégane Thiaré, Ndeye Arame Diop, Pape Abdoulaye Diaw, François Delattre, Atanasse Coly and Philippe Giamarchi*



Open Access Article. Published on 04 July 2024. Downloaded on 12/11/2025 3:55:11 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

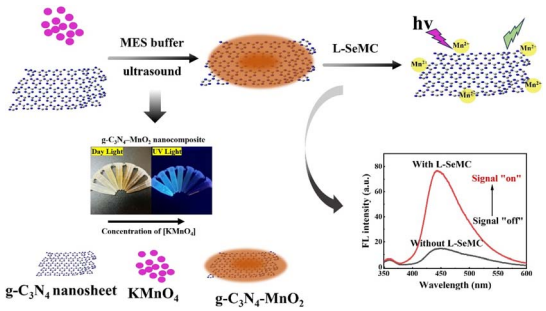
4360



A LIBS spectrum baseline correction method based on the non-parametric prior penalized least squares algorithm

Shengjie Ma, Shilong Xu,* Youlong Chen, Zhenglei Dou, Yuhao Xia, Wanying Ding, Jiajie Dong and Yihua Hu*

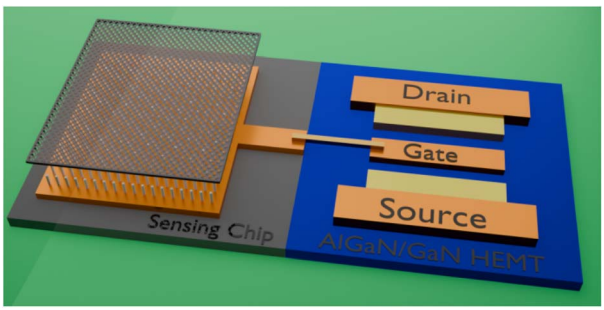
4373



Highly selective fluorescence detection of L-selenium-methylselenocysteine in selenium-enriched *Cardamine violifolia*

Xiaoran Shi, Hui Zhao, Han Zhang, Qunfang Li and Fangming Lou*

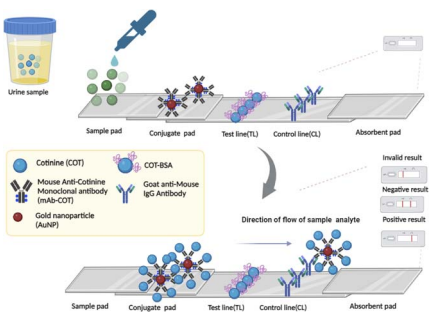
4381



A salivary urea sensor based on a microsieve disposable gate AlGaN/GaN high electron mobility transistor

Guo Yang, Boxuan Xu, Hui Chang, Zhiqi Gu* and Jiadong Li*

4387



Development in competitive immunoassay of a point-of-care testing for cotinine (COT) detection in urine

Suthinee Konziw, Paweena Tunakhun, Sawinee Ngernpimai, Oranee Srichaiyapol, Patcharee Boonsiri, Patcharaporn Tippayawat, Anchalee Techasen, Pornsuda Maraming, Kiattawee Choowongkomon, Sakda Daduang, Limthong Promdee* and Jureerut Daduang*

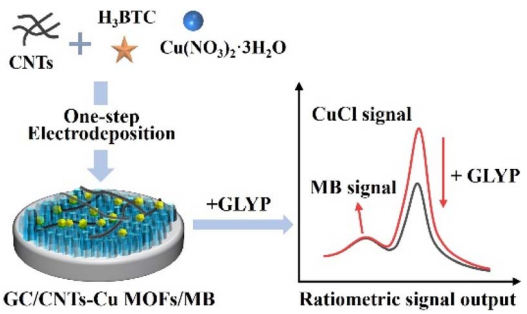
This journal is © The Royal Society of Chemistry 2024

Open Access Article. Published on 04 July 2024. Downloaded on 12/11/2025 3:55:11 PM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

4395

One-step electrodeposition of MWCNTs-Cu MOF films for the ratiometric electrochemical analysis of glyphosate

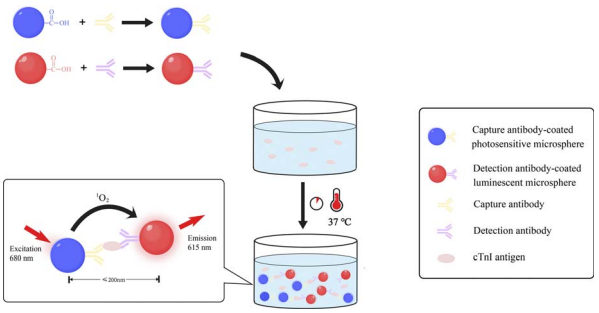
Fan Zhao,* Dongqing Guo, Jingyue Lan and Yunxi Liu



4402

Establishment of a microspheres-based homogeneous fluorescence immunoassay for the rapid detection of cardiac troponin I

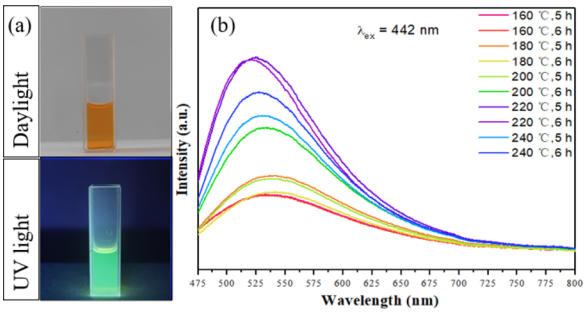
Yan Tang, Fuzhong Chen, Wei Lv, Zixuan Zhou, Yulin Fu, Yuan Qin, Xueqin Zhao,* Junhong Wang* and Biao Huang*



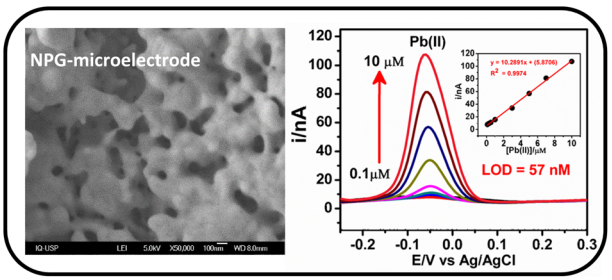
4409

Detection of sulphur(II) of carbon dots synthesized from *Gardenia* residue

Zhaoxia Li, Yuchuan Dong, Xinyi Li, Dongchun Li, Jia Dong, Panchen Wang, Shuwei Chen* and Huiling Geng*



4415

A home-made nanoporous gold microsensor for lead(II) detection in seawater with high sensitivity and anti-interference properties

Renato Soares de Oliveira Lins, Anandhakumar Sukeri* and Mauro Bertotti*