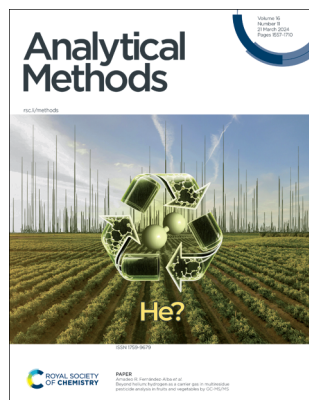


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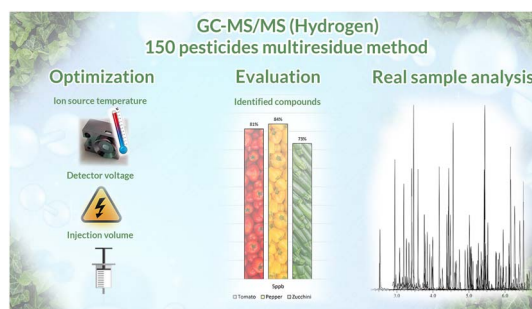
**Cover**  
See Amadeo R. Fernández-Alba *et al.*, pp. 1564–1569.  
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## PAPERS

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### Beyond helium: hydrogen as a carrier gas in multiresidue pesticide analysis in fruits and vegetables by GC-MS/MS

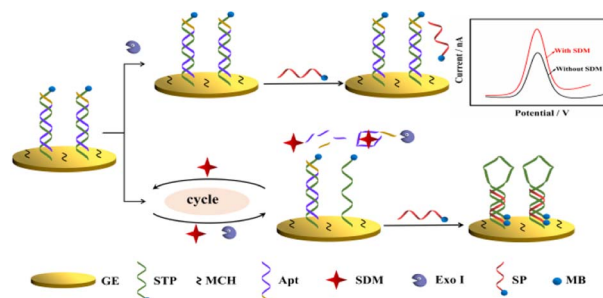
Víctor Cutillas, Guillermo García-Gallego, María Murcia-Morales, Carmen Ferrer and Amadeo R. Fernández-Alba\*



1570

### A novel and sensitive electrochemical aptasensor for sulfadimethoxine detection based on the triple helix/exonuclease I-assisted double-amplification strategy

Meijuan Du, Xin Cheng, Qian Chen and Xueqin Xu\*



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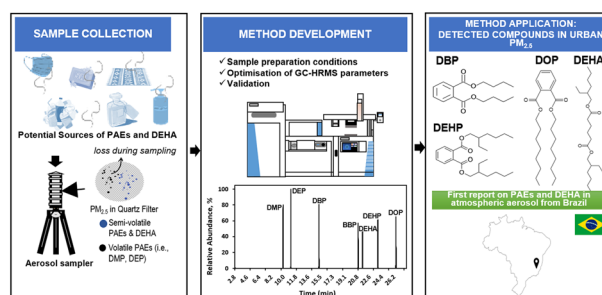
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Fundamental questions  
Elemental answers

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### Development and validation of a GC Orbitrap-MS method for the analysis of phthalate esters (PAE) and bis(2-ethylhexyl)adipate (DEHA) in atmospheric particles and its application for screening PM<sub>2.5</sub> from Curitiba, Brazil

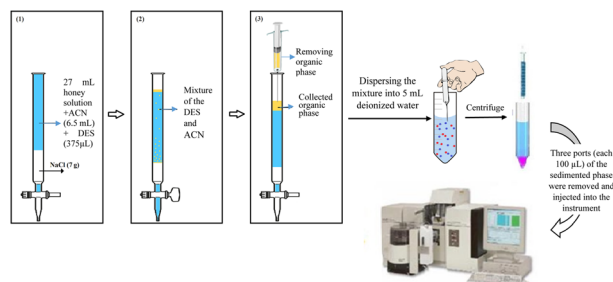
Cristian Ryan A. Argamino, Bruna G. Sebben, Gabriela da Costa, Sam Towers, Anna Bogush, Svetlana Stevanovic, Ricardo H. M. Godoi and Ivan Kourtchev\*



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### Development of salt-induced homogeneous liquid–liquid extraction using a deep eutectic solvent performed in a narrow-bore tube for the extraction of Zn(II), Cu(II), and Cd(II) ions from honey samples

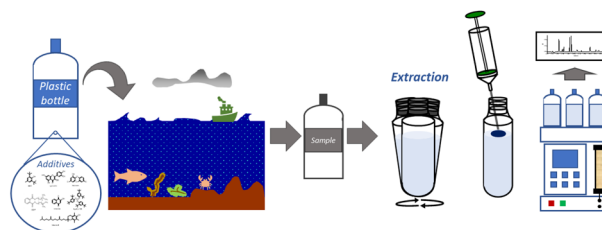
Ali Asghar Zendejdel, Saeed Mohammad Sorouraddin\* and Mir Ali Farajzadeh



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### Development of a dispersive liquid–liquid microextraction method for the determination of plastic additives in seawater

María José González-Castro, Jaime Uribe-Ares, Soledad Muniategui-Lorenzo and Elisa Beceiro-González\*



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### Mitigating the impact of gelatin capsule variability on detection of substandard and falsified pharmaceuticals with near-IR spectroscopy

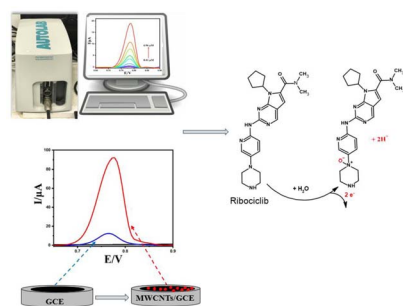
Olatunde Awotunde, Jiaqi Lu, Jin Cai, Nicholas Roseboom, Sarah Honegger, Ornella Joseph, Alyssa Wicks, Kathleen Hayes and Marya Lieberman\*



**Dosage forms of doxycycline from field study subjected to *in-situ* NIR analysis**



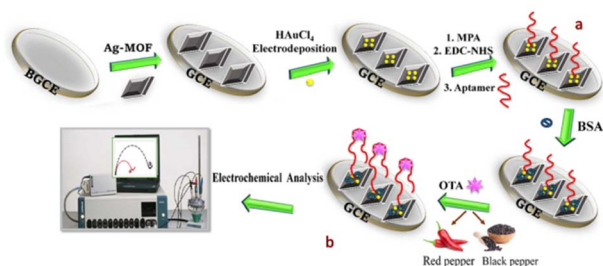
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**A low-cost voltammetric sensor based on multi-walled carbon nanotubes for highly sensitive and accurate determination of nanomolar levels of the anticancer drug Ribociclib in bulk and biological fluids**

Wiem Bouali,<sup>\*</sup> Nevin Erk<sup>\*</sup> and Asena Ayse Genc

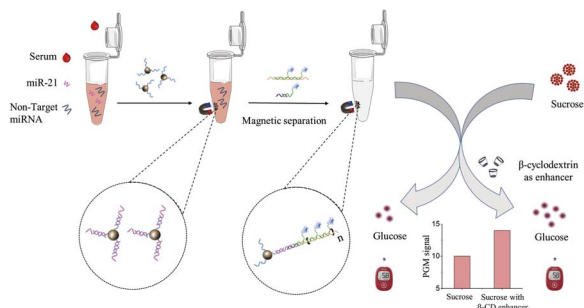
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**A label-free aptasensor based on electrodeposition of gold nanoparticles on silver-based metal-organic frameworks for measuring ochratoxin A in black and red pepper**

Elaheh Amini-Nogorani, Hamid R. Zare,<sup>\*</sup>  
Fahime Jahangiri-Dehaghani and Ali Benvidi

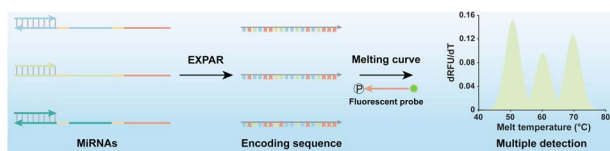
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**A novel  $\beta$ -cyclodextrin-assisted enhancement strategy for portable and sensitive detection of miR-21 in human serum**

Feng Yao, Longjie Wu, Yamin Xiong, Chaojie Su,  
Yujing Guo, Shajidan Bulale, Miaomiao Zhou,  
Yongmei Tian<sup>\*</sup> and Leiliang He<sup>\*</sup>

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**Programmable DNA barcode-encoded exponential amplification reaction for the multiplex detection of miRNAs**

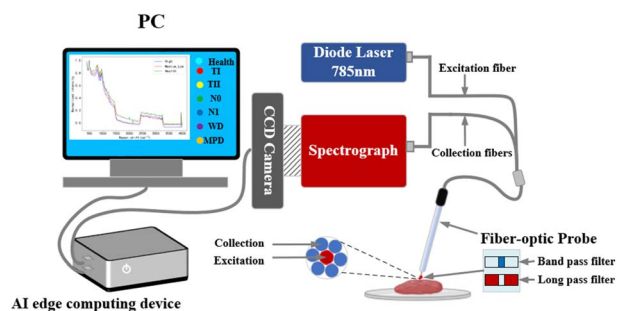
Yuqian Tan, Li Zhang and Shixiong Deng<sup>\*</sup>



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### A deep learning method for multi-task intelligent detection of oral cancer based on optical fiber Raman spectroscopy

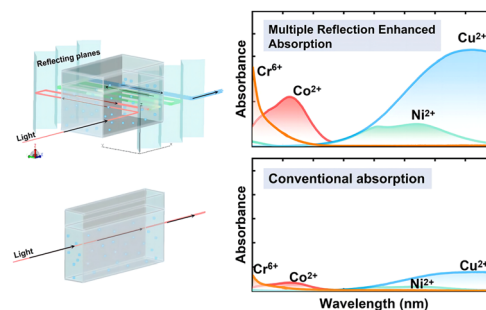
Lianyu Li, Mingxin Yu,\* Xing Li,\* Xinsong Ma, Lianqing Zhu and Tao Zhang\*



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### High-sensitivity detection of low-concentration heavy metal ions in solution by multiple reflection enhanced absorption (MREA) spectroscopy

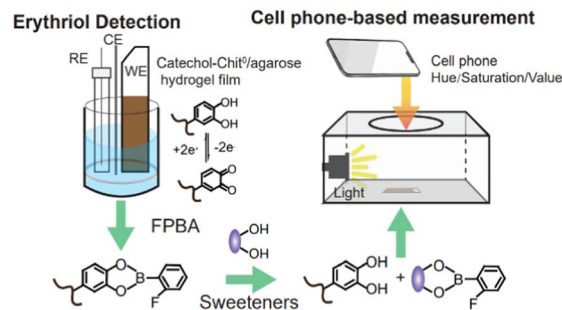
Rong Zhang, Hongfei Liu, Linhua Jiang,\* Ning Duan,\* Fuyuan Xu, Wenjie Gao, Yong Liu, Guangbin Zhu and Jiaxin Wang



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### Visualized sensing of erythritol using a simple enzyme-free catechol-based hydrogel film

Xinyue Zhang, Si Wu,\* Tao Feng,\* Yuanhao Yan, Shijing Wu, Yinyu Chen, Yu Wang, Qingmiao Wang, Ning Hu and Li Wang



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### Development of a generic sample preparation method using dispersive liquid-liquid microextraction for the monitoring of leachable compounds in hospital pharmacy-prepared prefilled drug products

William Bello, Julian Pezzatti, Serge Rudaz and Farshid Sadeghipour\*

