

## IN THIS ISSUE

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### Cover

See Simon Maher *et al.*,  
pp. 5366–5379.

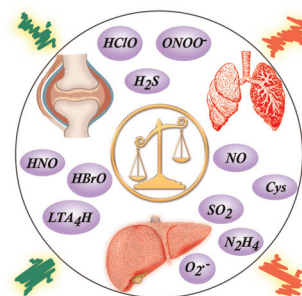
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2023, **148**, 5366.

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### Small-molecule fluorescent probes for bioactive species in inflammatory disease: arthritis, pneumonia and hepatitis

Xiaolei Zhang, Fuyan Tang, Wei Shu, Dongpeng Li,  
Yuying Liu, Haibin Xiao,\* Jin Zhou\* and Ping Li\*

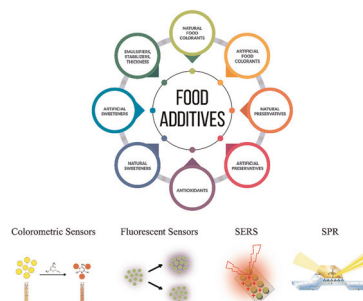


## CRITICAL REVIEWS

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### Recent advancements in nanomaterial based optical detection of food additives: a review

Sanjeev K. Bhardwaj, Akash Deep, Neha Bhardwaj\* and  
Nishima Wangoo\*



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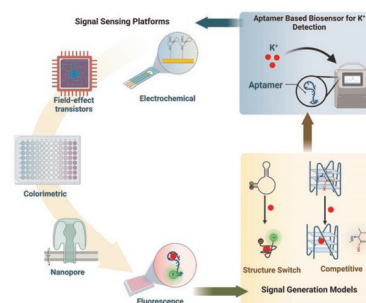


## CRITICAL REVIEWS

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## Recent advances in aptamer-based biosensors for potassium detection

Tengfang Zhang, Jiajia Liu, Linghao Zhang, Muhammad Irfan\* and Xin Su\*

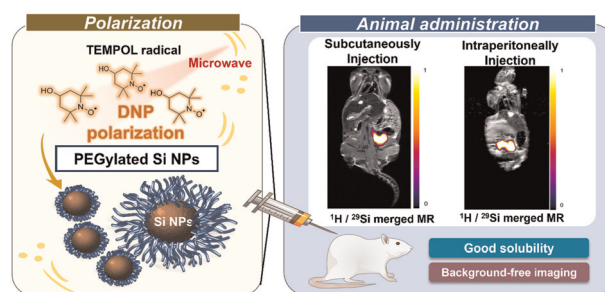


## COMMUNICATIONS

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Background free *in vivo*  $^{29}\text{Si}$  MR imaging with hyperpolarized PEGylated silicon nanoparticles

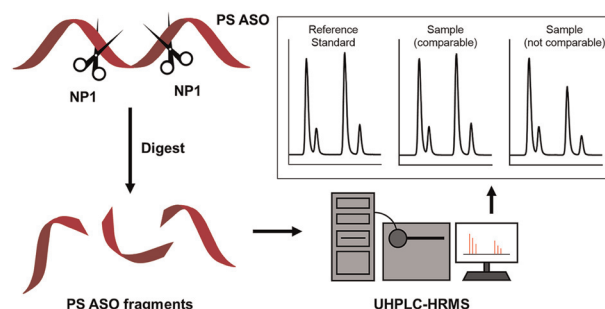
Seung-Hyun Yang, Jiwon Kim, Tae Geol Lee, Mirae Park, Hye Young Son, Chan Gyu Joo, Jeong Hyun Shim,\* Youngbok Lee\* and Yong-Min Huh\*



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## Establishing stereochemical comparability in phosphorothioate oligonucleotides with nuclease P1 digestion coupled with LCMS analysis

Zifan Li,\* Fei Tong, Li Xiao, Nicholas R. Larson, Xuan Zhou, Yueheng Zhang, Jonas P. Immel-Brown and George M. Bou-Assaf\*

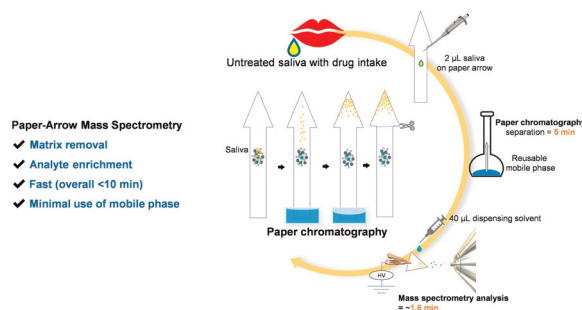


## PAPERS

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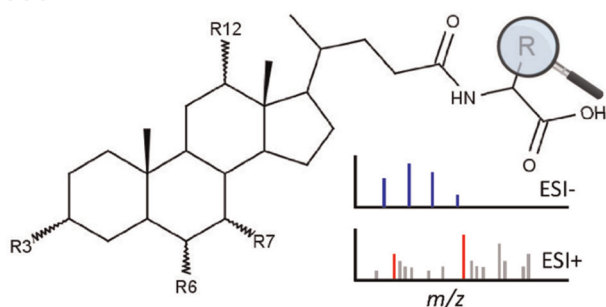
## Emergency diagnosis made easy: matrix removal and analyte enrichment from raw saliva using paper-arrow mass spectrometry

Yufeng Zhou, Tung-Ting Sham, Cedric Boisdon, Barry L. Smith, Joanne C. Blair, Daniel B. Hawcutt and Simon Maher\*



## PAPERS

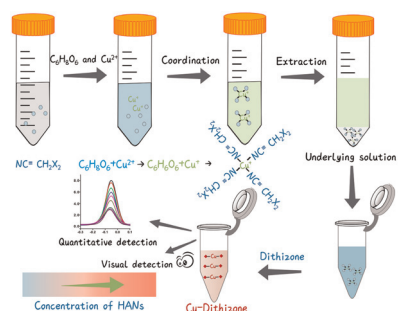
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### Integration of semi-empirical MS/MS library with characteristic features for the annotation of novel amino acid-conjugated bile acids

Yan Ma,\* Yang Cao, Xiaocui Song, Weichen Xu, Zichen Luo, Jinjun Shan and Jingjie Zhou

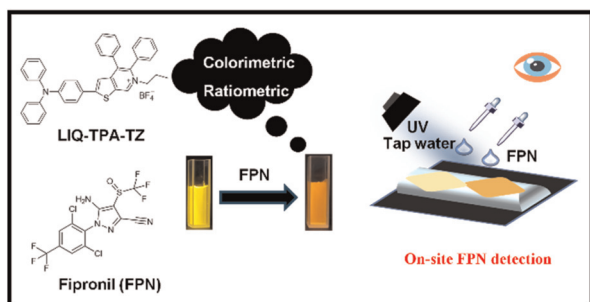
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### Rapid and visual detection of dichloroacetonitrile in water

Jiabao Zhong, Hangyan Zhang, Yina Cai, Xiuping Chen, Zhiyuan Fang\* and Dun Deng\*

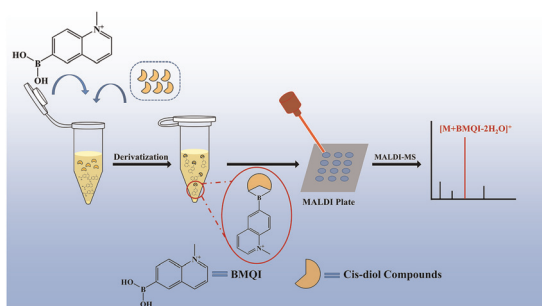
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### Colorimetric and ratiometric supramolecular AIE fluorescent probe for the on-site monitoring of fipronil

Junxu Ge, Li-Juan Wang, Xiu Pan, Chungu Zhang, Ming-Yu Wu\* and Shun Feng\*

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### A reactive matrix for *in situ* chemical derivatisation and specific detection of *cis*-diol compounds by matrix-assisted laser desorption/ionisation mass spectrometry

Jiajing Chen, Huan Huang, Dan Ouyang, Jiali Lin, Zhuling Chen, Zongwei Cai and Zian Lin\*

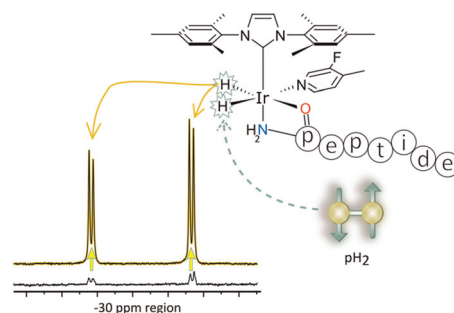


## PAPERS

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### Parahydrogen hyperpolarized NMR detection of underivatized short oligopeptides

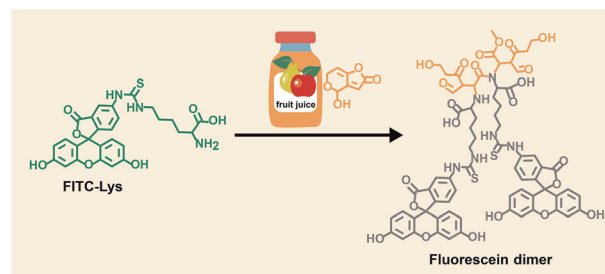
Nele Reimets, Kerti Ausmees, Sirje Vija, Aleksander Trummal, Merle Uudsemaa and Indrek Reile\*



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### Visualization detection of mycotoxin patulin in fruit juices by a small-molecule fluorescent probe

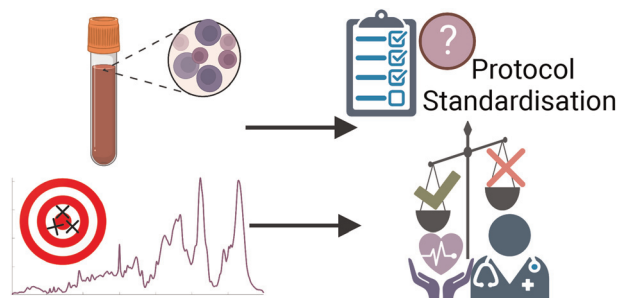
Rong Li, Zunpan She, Fang Zeng\* and Shuizhu Wu\*



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### Effect of pre-analytical variables on Raman and FTIR spectral content of lymphocytes

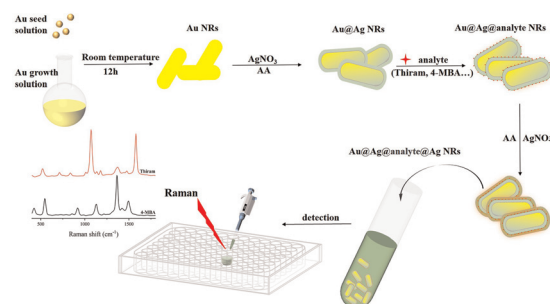
Jade F. Monaghan, Daniel Cullen, Claire Wynne, Fiona M. Lyng\* and Aidan D. Meade\*



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### Ultrasensitive detection of thiram based on surface-enhanced Raman scattering via Au@Ag@Ag core/shell/shell bimetallic nanorods

Yuqiu Wang, Shuchang Liu, Yongjun Hu,\* Cuicui Fu\* and Weiqiang Chen\*

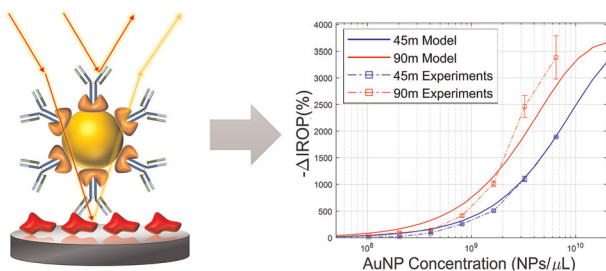




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Interferometric Signal

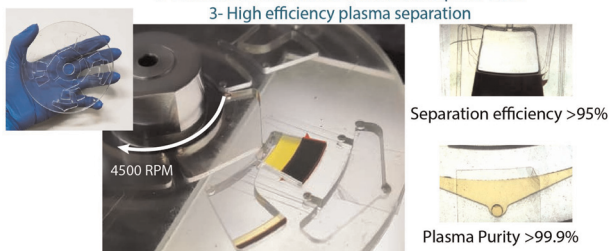


### Developing an improved optical biosensing system based on gold nanoparticles acting as interferometric enhancers in Lactoferrin detection

L. G. Valle, B. Santamaría, A. Lavín, M. F. Laguna, L. Rodríguez-Lorenzo, B. Espiña and M. Holgado\*

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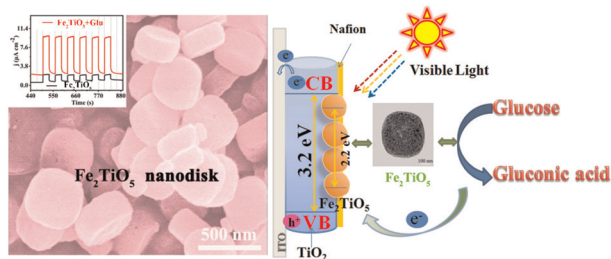
- 1- Image analysis to determine the RBC and Plasma boundary
- 2- Automatic actuation of the suitable siphon valve
- 3- High efficiency plasma separation



### Real-time monitoring and actuation of a hybrid siphon valve for hematocrit-independent plasma separation from whole blood

Reza Khodadadi, Esmail Pishbin,\* Manouchehr Eghbal and Karen Abrinia

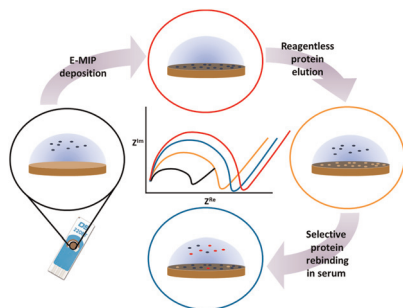
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### Synthesis of uniformly dispersed $\text{Fe}_2\text{TiO}_5$ nanodisks: a sensitive photoelectrochemical sensor for glucose monitoring in human blood serum

Wenbo Lu,\* Rui Zhang, Xue Zhang, Yufen Shi, Yupeng Wang and Huanhuan Shi\*

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### Rapid sub-nanomolar protein determination in serum using electropolymerized molecularly imprinted polymers (E-MIPs)

A. N. Stephen, S. R. Dennison, M. A. Holden and S. M. Reddy\*

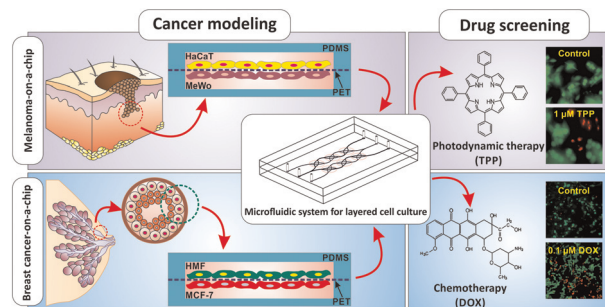


## PAPERS

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# A layered cancer-on-a-chip system for anticancer drug screening and disease modeling

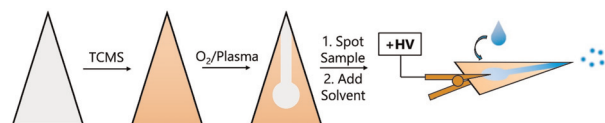
Magdalena Flont, Artur Dybko and Elżbieta Jastrzębska\*



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# Rapid fabrication of hydrophobic/hydrophilic patterns on paper substrates for paper spray mass spectrometry

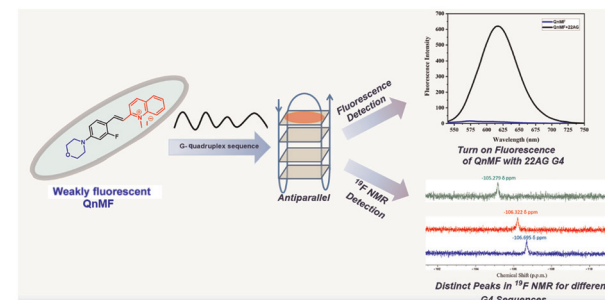
Austin Arias, Peyton E. Windham, Natalie A. Cheyne and William M. Gilliland, Jr.\*



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# Unique development of a new dual application probe for selective detection of antiparallel G-quadruplex sequences

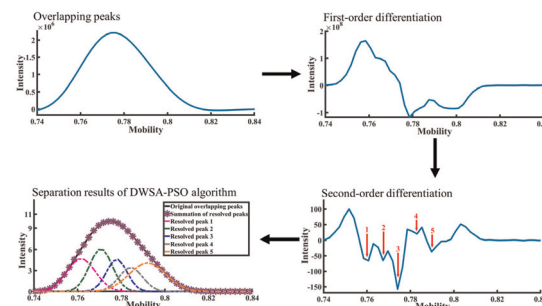
Vardhaman Babagond, Kariyappa Katagi,\* Anup Pandith, Mahesh Akki and Ashwini Jaggal



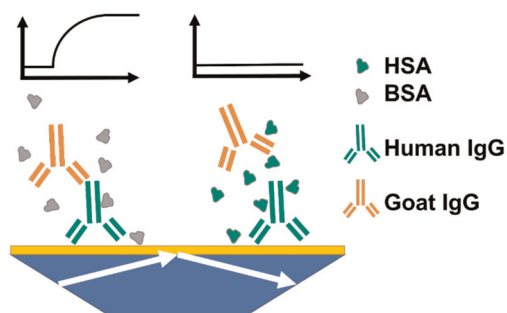
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# An improved algorithm for resolving overlapping peaks in ion mobility spectrometry and its application to the separation of glycan isomers

Xiangyang Hu, Junfei Zhou, Junhui Li, Wenqing Gao,\* Jun Zhou,\* Jiancheng Yu\* and Keqi Tang



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### Influence of bovine and human serum albumin on the binding kinetics of biomolecular interactions

Benjamin Charron, Alexandre Delorme, Caroline Dubois, Maryam Hojjat Jodaylami and Jean-Francois Masson\*

