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ISSN 0003-2654 CODEN ANALAO 148(13) 2873–3118 (2023)



### Cover

See Shalini Prasad *et al.*,  
pp. 2921–2931.

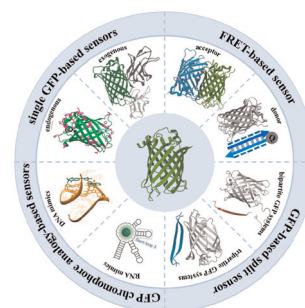
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### Principles and applications of green fluorescent protein-based biosensors: a mini-review

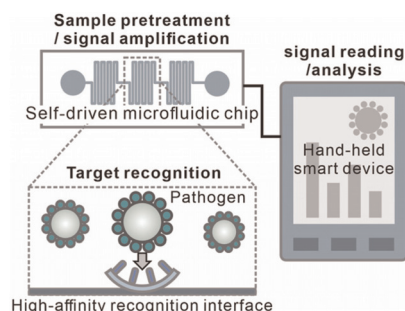
Fengxia Tian,\* Guangling Xu, Suo Zhou,  
Shuchang Chen and Dongmei He



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### Recent development of nanotechnology-empowered antigen assay methods for the control of infectious diseases

Hongzhen Peng, Hongxuan Fan, Eric Zhengliang He  
and Jiang Li\*



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Analyst (electronic: ISSN 1364-5528) is published  
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Thomas Graham House, Science Park, Milton Road,  
Cambridge, UK CB4 0WF.

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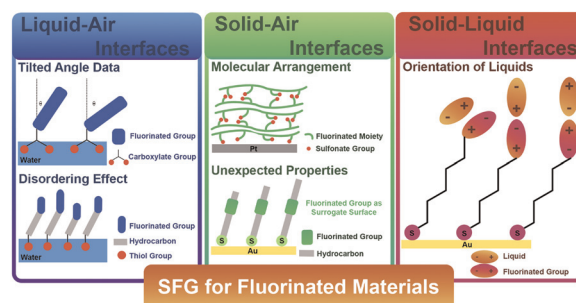


## TUTORIAL REVIEW

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### Sum frequency generation spectroscopy of fluorinated organic material-based interfaces: a tutorial review

Siwakorn Sakunkaewkasem, Daniela Deleon, Yunsoo Choi, Hung-Vu Tran, Maria D. Marquez, Steven Baldelli\* and T. Randall Lee\*

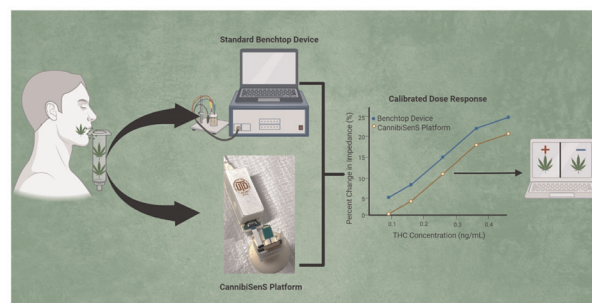


## PAPERS

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### CannibiSenS: an on-demand rapid screen for THC in human saliva

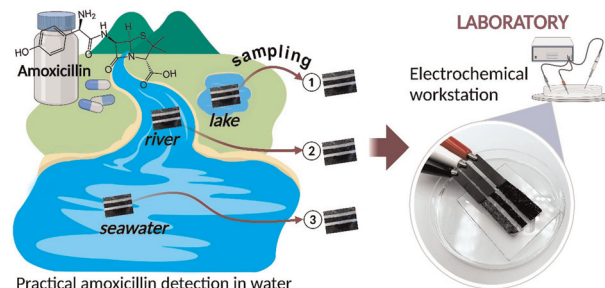
Nathan Kodjo Mintah Churcher, Vikram Narayanan Dhamu and Shalini Prasad\*



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### A green cellulose nanofiber-based printed electrode for practical highly sensitive amoxicillin detection

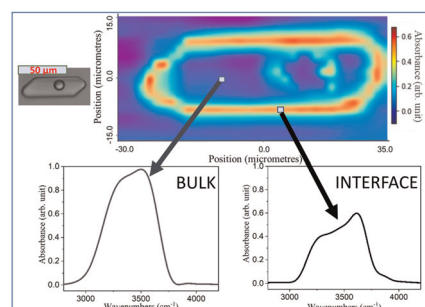
Shaimah Rinda Sari, Erika Shinchii, Kenji Shida, Yuly Kusumawati, Kartika A. Madurani, Fredy Kurniawan and Masato Tominaga\*



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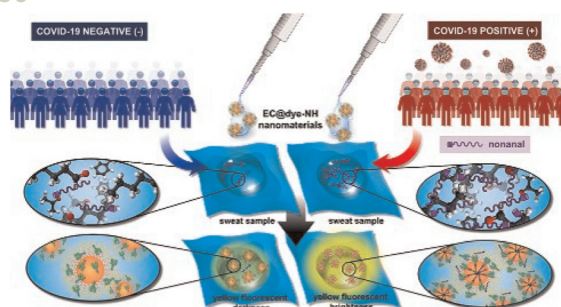
### Diffraction-limited mid-infrared microspectroscopy to reveal a micron-thick interfacial water layer signature

Armin Mozhdehei,\* Aneta Slodczyk, Eirik Almklov Magnussen, Achim Kohler, Christophe Sandt, Ferenc Borondics and Lionel Mercury



## PAPERS

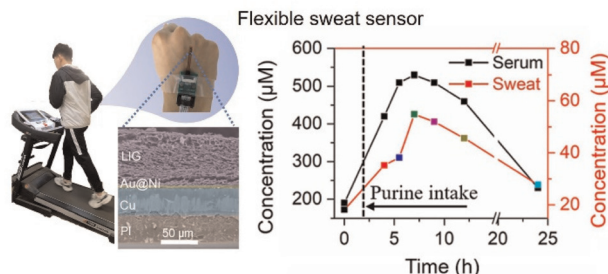
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### A fluorescence-based sweat test sensor in a proof-of-concept clinical study for COVID-19 screening diagnosis

Isaya Thaveesangsakulthai, Jinnawat Jongkhumkrong, Kaywalee Chatdarong, Pattama Torvorapanit, Wannee Sukbangnop, Thanasat Sooksimuang, Chadin Kulsing\* and Boosayarat Tomapatanaget\*

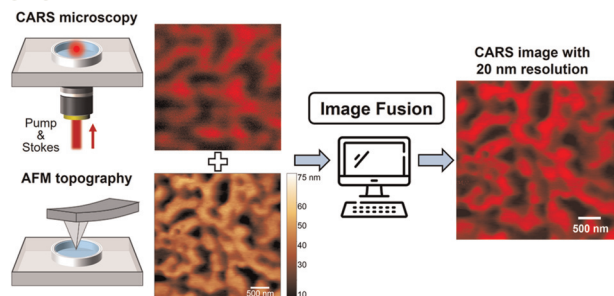
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### Screen printing and laser-induced flexible sensors for the simultaneous sensitive detection of uric acid, tyrosine, and ascorbic acid in sweat

Shuwen Chen, Zhikang Cao, Kang Zhou, Shaoguang Li, Hui Li, Kaichen Xu, Haibin Tang, Heng Deng, Qitao Zhou, Jing Pan\* and Fan Xia

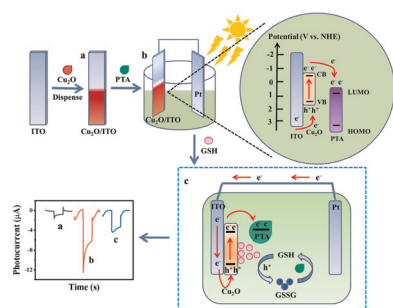
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### Nanoscale bond-selective imaging by computational fusion of atomic force microscopy and coherent anti-Stokes Raman scattering microscopy

Le Wang and Ji-Xin Cheng\*

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### Ultrasensitive photoelectrochemical detection of glutathione based on the multifunctional catalytic properties of phosphotungstic acid

Yifan Jiang, Huilan Zhang, Meizhu Xu, Fang Luo, Cuiying Lin, Bin Qiu, Zhenyu Lin, Zhou Jiang and Jian Wang\*

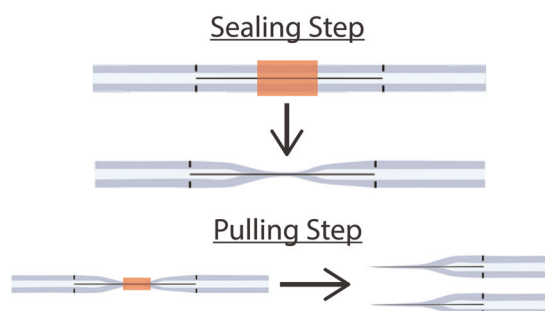


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### A troubleshooting guide for laser pulling platinum nanoelectrodes

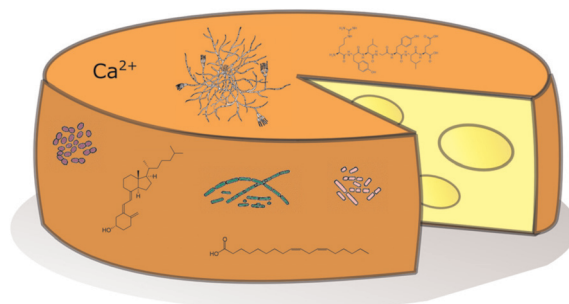
Koun Lim, Sondrica Goines, Mingchu Deng, Hadley McCormick, Philip J. Kauffmann and Jeffrey E. Dick\*



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### Metabolomics of bacterial–fungal pairwise interactions reveal conserved molecular mechanisms

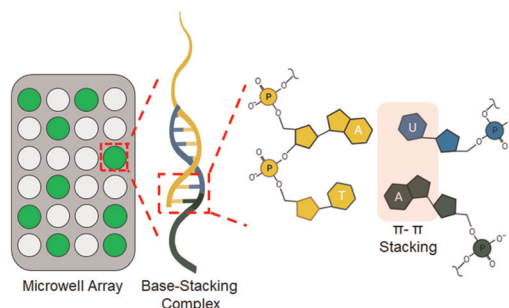
Gordon T. Luu, Jessica C. Little, Emily C. Pierce, Manon Morin, Celine A. Ertekin, Benjamin E. Wolfe, Oliver Baars, Rachel J. Dutton and Laura M. Sanchez\*



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### Reverse transcription-free digital-quantitative-PCR for microRNA analysis

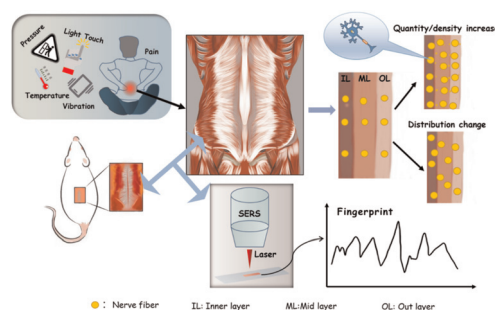
Hao T. Mai, Brice C. Vanness and Thomas H. Linz\*



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### Label-free SERS ultrasensitive and universal detection of low back pain fingerprint based on SERS substrate

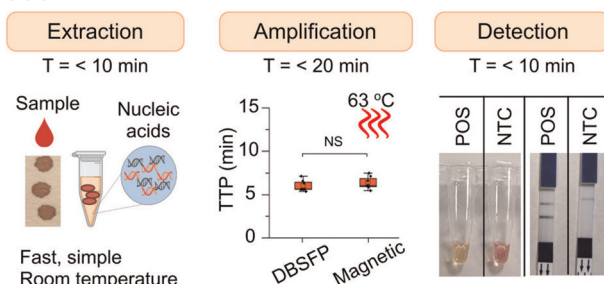
Cai Wang, Jixiang Chen, Jingguo Wu, Huiyu Wan, Qianwen Yue, Baoliang Sun, Ying Wang,\* Qiang Xiao\* and Jingyi Sun\*





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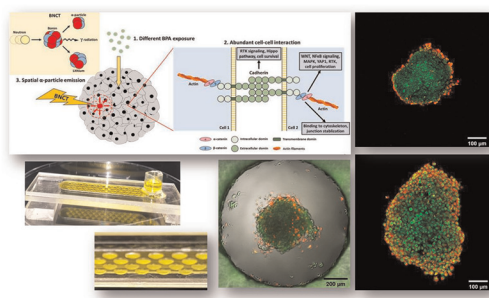
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### A dual paper-based nucleic acid extraction method from blood in under ten minutes for point-of-care diagnostics

Kenny Malpartida-Cardenas, Jake Baum, Aubrey Cunningham, Pantelis Georgiou and Jesus Rodriguez-Manzano\*

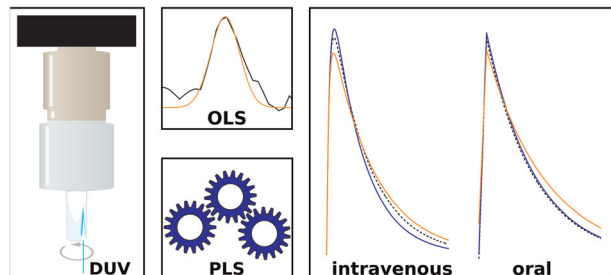
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### Evaluating the biological effectiveness of boron neutron capture therapy by using microfluidics-based pancreatic tumor spheroids

Lin-Yen Yu, Chia-Hsien Hsu,\* Chia-Yang Li, Shiao-Ya Hong, Chang-Ray Chen and Chi-Shuo Chen\*

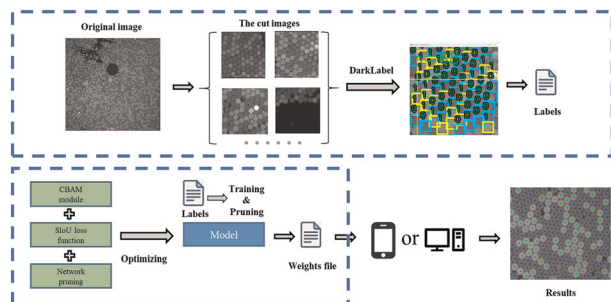
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### Towards therapeutic drug monitoring of antibiotic levels – analyzing the pharmacokinetics of levofloxacin using DUV-resonance Raman spectroscopy

Christian Domes, Juergen Popp, Stefan Hagel, Mathias W. Pletz and Torsten Frosch\*

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### A one-stage deep learning based method for automatic analysis of droplet-based digital PCR images

Yuanyang Yao, Shuhao Zhao, Yan Liang, Fei Hu\* and Niancai Peng\*

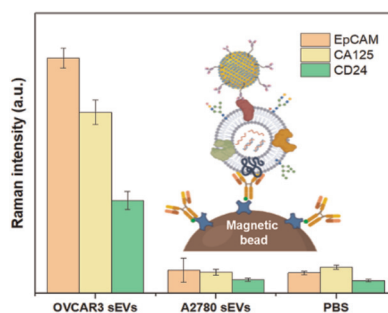


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### Improving SERS biosensors for the analysis of ovarian cancer-derived small extracellular vesicles

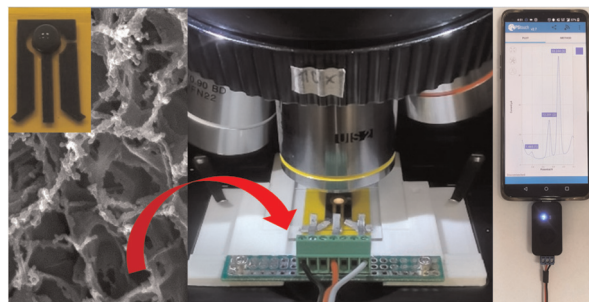
Long Ngo, Wei Zhang, Su Su Thae Hnit and Yuling Wang\*



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### Silver nanoparticles – laser induced graphene (Ag NPs – LIG) hybrid electrodes for sensitive electrochemical-surface enhanced Raman spectroscopy (EC-SERS) detection

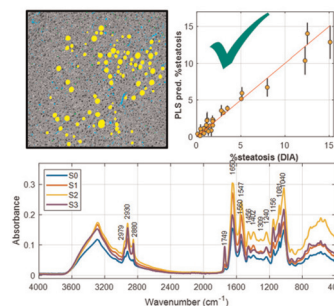
Yunyun Mu, Jahidul Islam, Richard Murray, Cathal Larrigy, Alida Russo, Xiping Zhang, Aidan J. Quinn and Daniela Iacopino\*



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### Enhancing the accuracy of mid-infrared spectroscopy-based liver steatosis quantification using digital image analysis as a reference

Iván Rienda, Isabel Ten-Doménech, Erika Moro, Marta Moreno-Torres, Judith Pérez-Rojas, Eugenia Pareja, Álvaro Pérez-Rubio, Ramón Trullenque, Ramiro Jover, Bernhard Lendl, David Pérez-Guaita, Julia Kuligowski, Jose V. Castell and Guillermo Quintás\*



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### Single-step electropolymerization on a printed sensor towards a conductive thin film polymer for the simultaneous determination of drug metabolites: 5-aminosalicylic acid and sulfapyridine

Jeerakit Thangphatthanarunguang, Chuleekorn Chotsuwan, Orawon Chailapakul and Weena Siangproh\*

