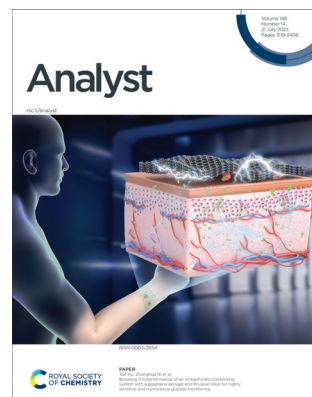


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Zhonghua Ni *et al.*,
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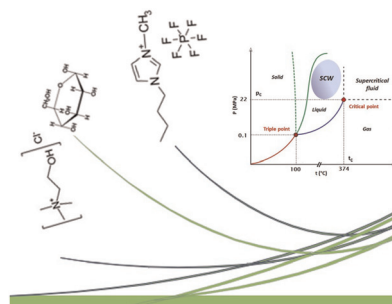
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CRITICAL REVIEW

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Greener chemistry in analytical sciences: from green solvents to applications in complex matrices. Current challenges and future perspectives: a critical review

Slavica Ražić,* Jelena Arsenijević, Svetlana Đogo Mračević, Jasmina Mušović and Tatjana Trtić-Petrović

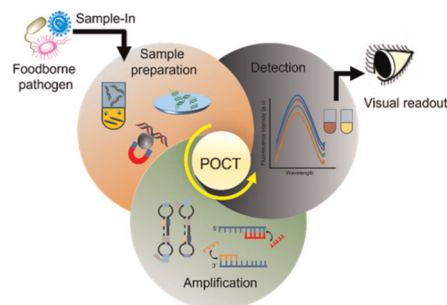


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Advances in deoxyribonucleic acid extraction techniques and point-of-care molecular diagnosis of foodborne pathogens

Rajamanickam Sivakumar and Nae Yoon Lee*



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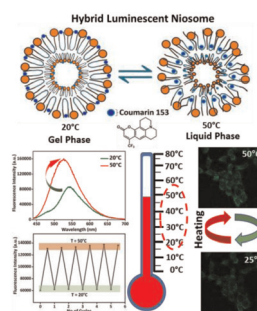


COMMUNICATIONS

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Designing a nanothermometer using gel-to-liquid phase transition property of hybrid niosome

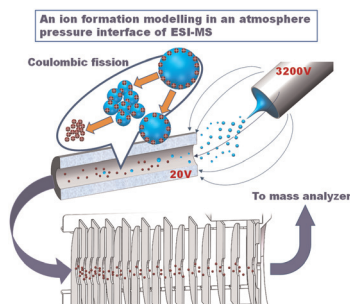
Ronak Lazarus, Rupal Kothari, Sravani Kaja, Venkata Vamsi Krishna Venuganti* and Amit Nag*



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From droplets to ions: a comprehensive and consecutive ion formation modelling in atmosphere pressure interface of electrospray ionization mass spectrometry

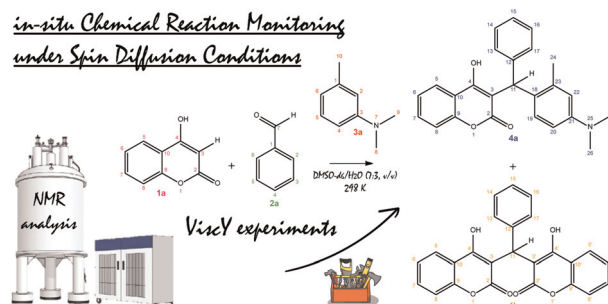
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ViscY nuclear magnetic resonance experiments for *in situ* chemical reaction monitoring under spin diffusion conditions

François Pedinielli, Ritchy Leroy, Salah-Eddine Akrial, Anthony Robert, Jean-Marc Nuzillard and Pedro Lameiras*

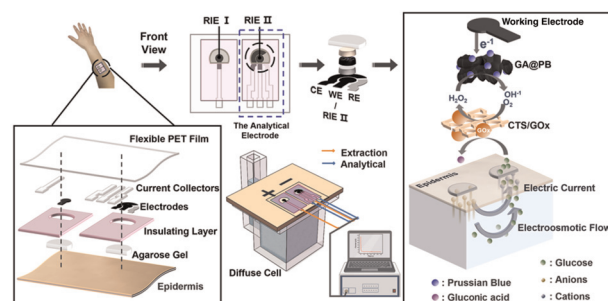


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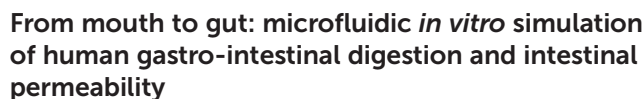
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Boosting the performance of an iontophoretic biosensing system with a graphene aerogel and Prussian blue for highly sensitive and noninvasive glucose monitoring

Xiao Li, Tong Li, Baoyang Liu, Ning Hu, Tao Hu* and Zhonghua Ni*

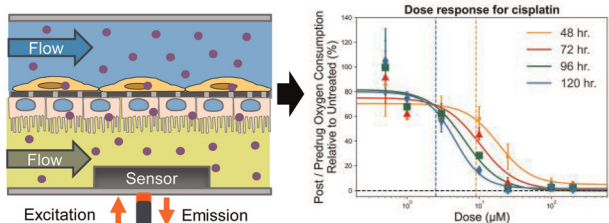


Gut-Chip



Miguel Xavier, Patrícia M. Rodrigues, Mafalda D. Neto,
Maria I. Guedes, Victor Calero, Lorenzo Pastrana and
Catarina Gonçalves*

Measurement of steady-state oxygen in a microfluidic co-culture model



Steady-state monitoring of oxygen in a high-throughput organ-on-chip platform enables rapid and non-invasive assessment of drug-induced nephrotoxicity

Samuel H. Kann, Erin M. Shaughnessey, Xin Zhang,*
Joseph L. Charest and Else M. Vedula*

The diagram illustrates the detection of H7N9 virus using a CRISPR-Cas12a system. The process begins with the assembly of a CRISPR-Cas12a complex with a guide RNA (gRNA) and a target DNA sequence. The complex then binds to the target DNA, leading to the activation of Cas12a, which cleaves the target DNA. The resulting fragments are then amplified by a rolling circle amplification (RCA) process, which is coupled with the detection of the target sequence. The final step is the detection of the target sequence using a colorimetric assay, where the presence of the target sequence leads to a color change from yellow to red.

Legend:

- $\text{Fe}_3\text{O}_4/\text{Au}$: Magnetic bead with gold coating
- CP DNA: CRISPR DNA
- CA125 aptamer: CRISPR-associated protein 125 aptamer
- MCH: 6-mercaptocaprylic acid
- CA125: Carcinoembryonic antigen 125
- RecJ_1 : Restriction endonuclease
- exonuclease: Exonuclease
- H1: Homopolymer 1
- H2: Homopolymer 2
- H3: Homopolymer 3
- TS: Target sequence
- padlock Probe: Padlock probe
- dNTPs: Deoxyribonucleoside triphosphates
- phi29 DNA Polymerase: Phi29 DNA polymerase
- H4: Homopolymer 4
- CS padlock probes: Cyclic sequence padlock probes
- $\text{Ru}(\text{ppy})_3^{2+}$: Ruthenium complex

Ultrasensitive detection of CA125 based on a triple signal amplification strategy with a huge number of loaded probes *via* exonuclease cyclic cleavage, rolling cyclic amplification and strand self-growth

Li He, Ciping Chen, Yongge Liu, Hong Hai and
Jianping Li*

The diagram illustrates the aerosol generation and sampling system. It shows the flow from the Aerosol Generator, through the Diffusion Dryer and In-line Heater, to the HEPA Filter and ESP. The system is controlled by a Two-way Valve and a Three-way Valve. The Aerosol Generator is connected to the Diffusion Dryer, which is connected to the In-line Heater. The In-line Heater is connected to the HEPA Filter, which is connected to the ESP. The HEPA Filter is also connected to a HEPA Filter Radioactive Containment Bag. The Aerosol Generator is connected to the Diffusion Dryer via Charged Silicone Tubing. The Diffusion Dryer is connected to the In-line Heater. The In-line Heater is connected to the HEPA Filter. The HEPA Filter is connected to the ESP. The HEPA Filter is also connected to a HEPA Filter Radioactive Containment Bag. The Aerosol Generator is connected to the Diffusion Dryer via Charged Silicone Tubing. The Diffusion Dryer is connected to the In-line Heater. The In-line Heater is connected to the HEPA Filter. The HEPA Filter is connected to the ESP. The HEPA Filter is also connected to a HEPA Filter Radioactive Containment Bag.

Production of mixed element actinide reference particulates to support nuclear safeguards using THESEUS, an aerosol-based particulate synthetic methodology

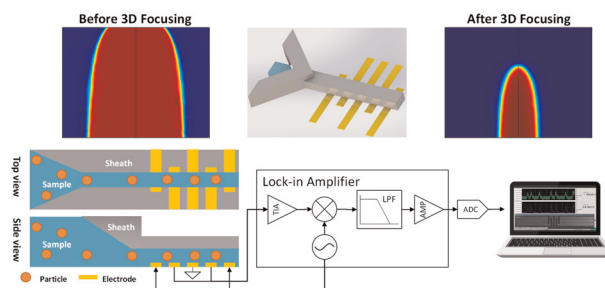
Benjamin E. Naes, Spencer Scott, Abigail Waldron,
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An adaptive three-dimensional hydrodynamic focusing microfluidic impedance flow cytometer

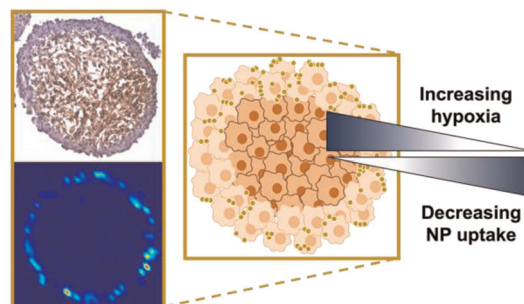
Yang Zhou, Jiao Wang, Ting Liu, Man Wu, Yuwei Lan, Chunping Jia* and Jianlong Zhao*



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Evaluating nanoparticle localisation in glioblastoma multicellular tumour spheroids by surface enhanced Raman scattering

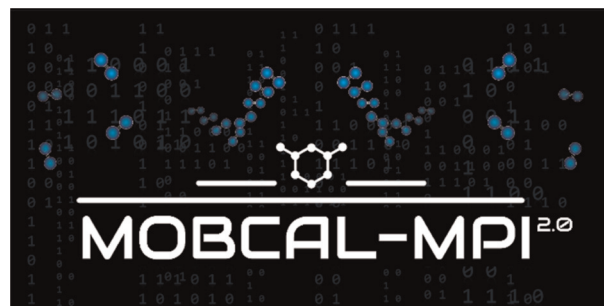
Samantha M. McCabe, Gregory Q. Wallace, Sian Sloan-Dennison, William J. Tipping, Neil C. Shand, Duncan Graham, Marie Boyd and Karen Faulds*



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MobCal-MPI 2.0: an accurate and parallelized package for calculating field-dependent collision cross sections and ion mobilities

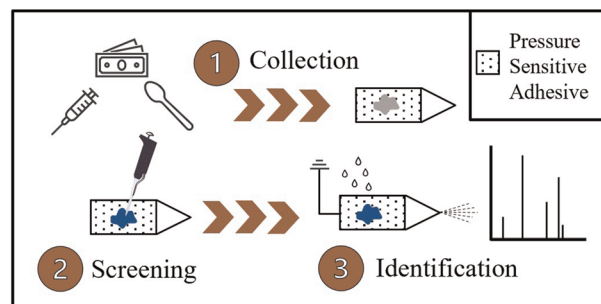
Alexander Haack, Christian Ieritano and W. Scott Hopkins*



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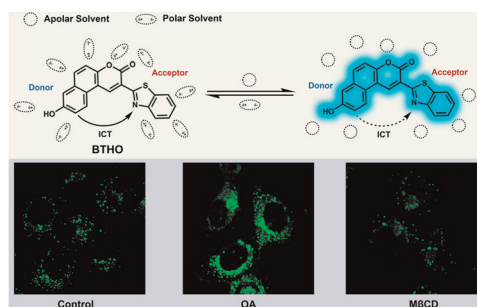
Combining presumptive color tests, pressure-sensitive adhesive-based collection, and paper spray-mass spectrometry for illicit drug detection

Sarah Prunty, Daniel Carmany, Elizabeth S. Dhummakupt and Nicholas E. Manicke*



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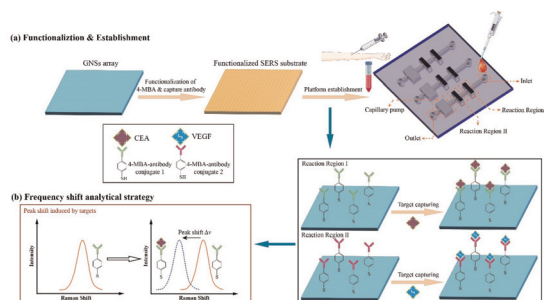
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A fluorescent probe for lipid droplet polarity imaging with low viscosity crosstalk

Bo Lin, Zhenru Li, Qi Zan, Li Fan, Yang Shu* and Jianhua Wang*

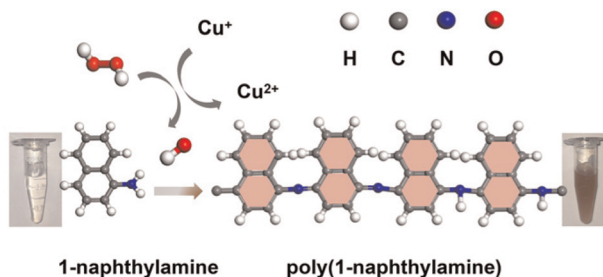
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Ultrasensitive detection of gastric cancer biomarkers via a frequency shift-based SERS microfluidic chip

Yong Huang, Zhengqing Liu, Xiaogang Qin, Jia Liu, Yan Yang and Wei Wei*

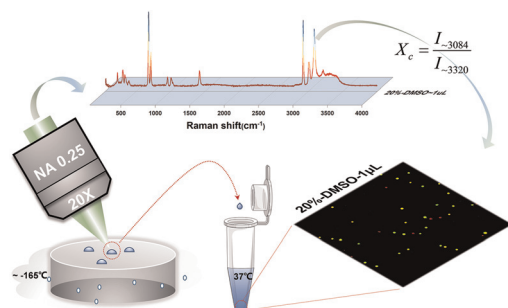
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A colorimetric chemosensor for sensitive and selective detection of copper(II) ions based on catalytic oxidation of 1-naphthylamine

Rui Cai, Chaudhary Ammar Shoukat, Chenqi Zhang, Xinshuang Gao, Hanbo Li, Jiaqi Chen,* Yinglu Ji* and Xiaochun Wu

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A study on the relationship between the crystallization characteristics of quenched droplets and the effect of cell cryopreservation with Raman spectroscopy

Taijie Zhan, Wenya Niu, Mengdong Cui, Hengxin Han, Hangyu Dang, Ning Guo, Ding Wang, Yan Hao, Chuanbao Zang, Yi Xu* and Hanming Guo

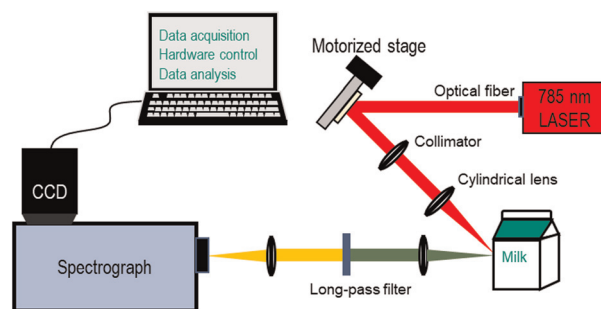


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Quantitative fat analysis of milk using a line-illumination spatially offset Raman probe through carton packaging

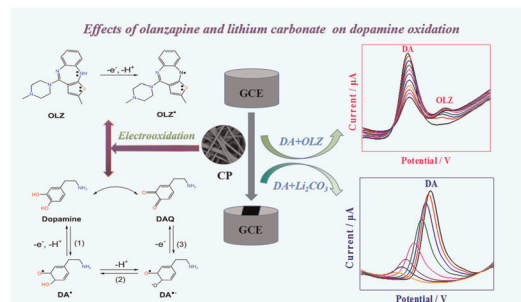
Si Won Song, Ye Chan Jeong, Chan Ryang Park and Hyung Min Kim*



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Effects of olanzapine and lithium carbonate antipsychotic agents on dopamine oxidation

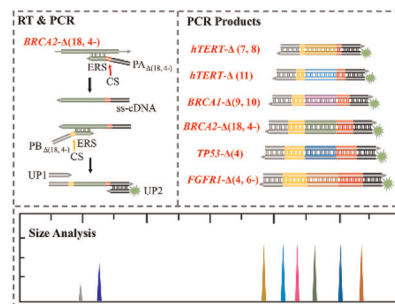
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Specific multiplexed detection of mRNA splice variants based on size-coding DNA probes and universal PCR amplification

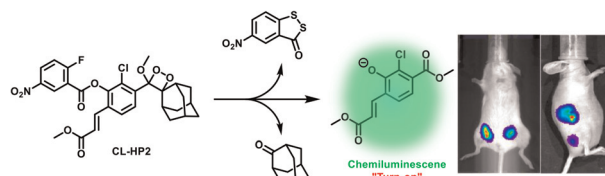
Yuting Jia, Honghong Wang,* Hui Wang, Fangfang Wang, Kejian Gao and Zhengping Li*



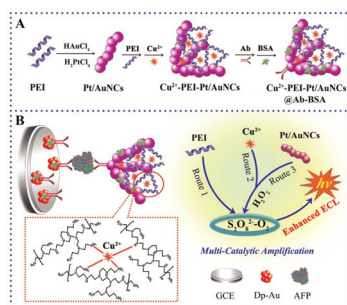
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A chemiluminescent sensor for imaging endogenous hydrogen polysulfides in a living system

Hanqing Zhao, Fenghui Qi, Yanian Xiong and Jianzhong Lu*



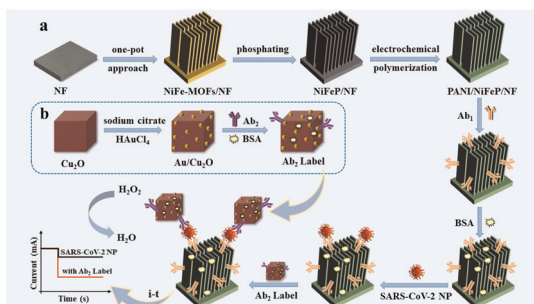
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An electrochemiluminescence immunosensor based on multipath signal catalytic amplification integrated in a Cu^{2+} -PEI-Pt/AuNC nanocomposite

Haijun Wang,* Yuhang Song, Yaqin Chai and Ruoyuan*

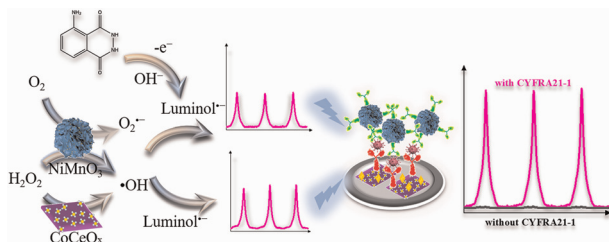
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A polyaniline functionalized NiFeP nanosheet array-based electrochemical immunosensor using Au/Cu₂O nanocubes as a signal amplifier for the detection of SARS-CoV-2 nucleocapsid protein

Liwei Bai, Yufen Shi, Xue Zhang, Xiaowei Cao, Jianhua Jia, Huanhuan Shi* and Wenbo Lu*

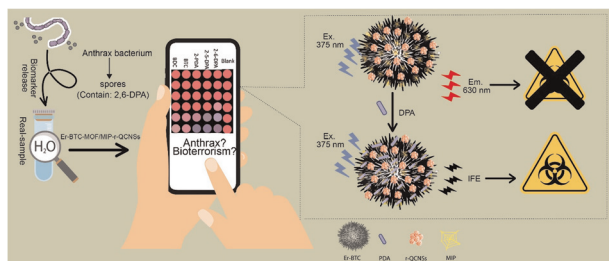
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Co-amplification of luminol-based electrochemiluminescence immunosensors based on multiple enzyme catalysis of bimetallic oxides CoCeO_x and NiMnO₃ for the detection of CYFRA21-1

Jingjing Zhang, Min Li, Jinglong Fang, Caihong Wang, Lei Liu, Wei Cao* and Qin Wei*

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Red-emissive carbon nanostructure-anchored molecularly imprinted Er-BTC MOF: a biosensor for visual anthrax monitoring

Solmaz Norouzi, Kheibar Dashtian, Fereshteh Amourizi and Rouholah Zare-Dorabei*

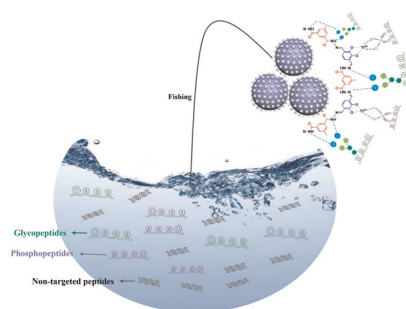


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Self-assembly of hydrazide-linked porous organic polymers rich in titanium for efficient enrichment of glycopeptides and phosphopeptides from human serum

Danni Wang, Quanshou Feng, Yiting Luo, Weimin Wang,*
Yinghua Yan* and Chuan-Fan Ding*



CORRECTION

3403

Correction: Supramolecular self-assembly of amantadine hydrochloride with ferulic acid via dual optimization strategy establishes a precedent of synergistic antiviral drug-phenolic acid nutraceutical cocrystal

Ling-Yang Wang, Yuan-Yuan Niu, Ming-Yu Zhao, Yue-Ming Yu, Yan-Tuan Li,* Zhi-Yong Wu and Cui-Wei Yan*

