

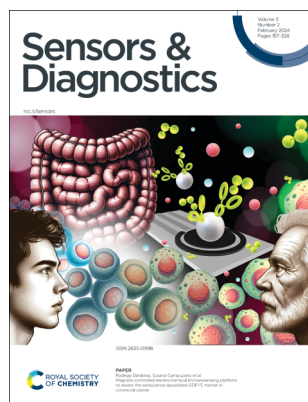
Sensors & Diagnostics

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IN THIS ISSUE

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Cover

See Rodrigo Barderas, Susana Campuzano *et al.*, pp. 238–247.

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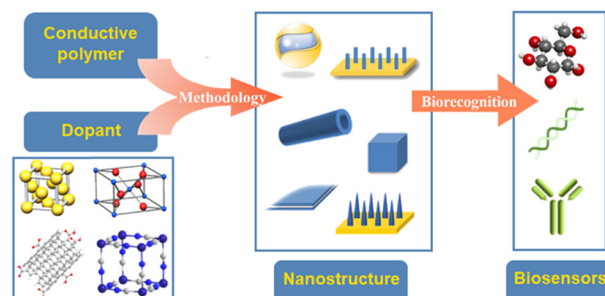
This cover was drawn by S. Tejerina-Miranda, V. Pérez-Ginés, and R. M. Torrente-Rodríguez.

TUTORIAL REVIEWS

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Conductive polymer nanocomposites: recent advances in the construction of electrochemical biosensors

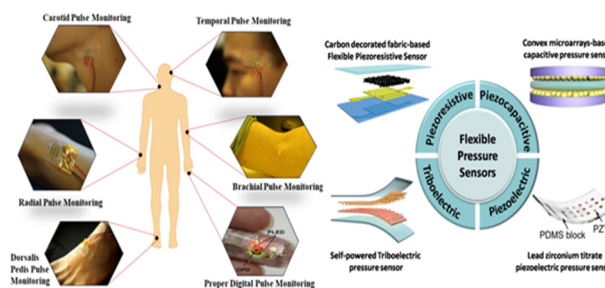
Hui Zeng, Ying Xie, Tao Liu, Zhenyu Chu, Eithne Dempsey* and Wanqin Jin*



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Blood pressure measurement techniques, standards, technologies, and the latest futuristic wearable cuff-less know-how

Shubham Kumar, Sanjay Yadav and Ashok Kumar*



RSC Applied Polymers

The application of polymers,
both natural and synthetic

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Fundamental questions
Elemental answers

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Minyeong Yoon, Yullim Lee, Seungju Lee,
Yongwook Cho, Damee Koh, Seyoung Shin,
Changyu Tian, Youngho Song, Joohoon Kang
and Soo-Yeon Cho*

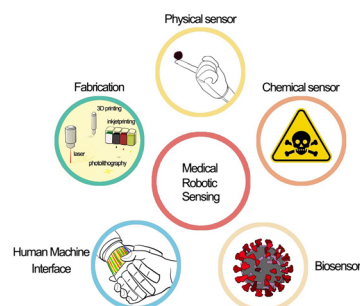
Minyeong Yoon, Yullim Lee, Seungju Lee,
Yongwook Cho, Damee Koh, Seyoung Shin,
Changyu Tian, Youngho Song, Joohoon Kang
and Soo-Yeon Cho*

The diagram illustrates three main applications of hydrogel-based sensors:

- Direct sensing:** Shows biofluids (represented by a test tube) containing biomarkers (represented by blue dots and a red virus-like particle) being analyzed by a sensor array (represented by a grid of blue and orange squares).
- Hydrogel Implantation:** Shows a hydrogel sensor (represented by a blue rectangular patch) being implanted into an animal (represented by a pink pig) and a marine organism (represented by a blue shark). Both the animal and the marine organism are shown with a wireless signal icon (represented by a blue 'W' shape).
- Sensor Injection:** Shows a hydrogel sensor (represented by a blue rectangular patch) being injected into a plant (represented by a green plant with brown soil) using a syringe. The plant is shown with a wireless signal icon (represented by a blue 'W' shape).

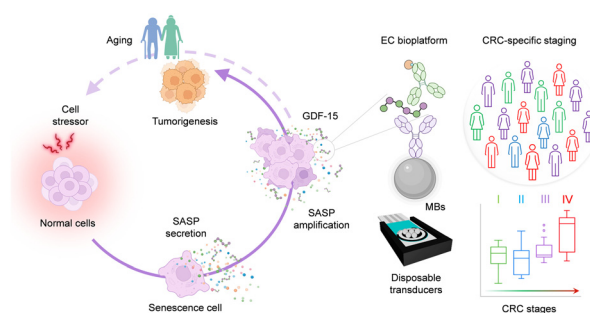
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Yiru Zhou, Yao Tang and You Yu*



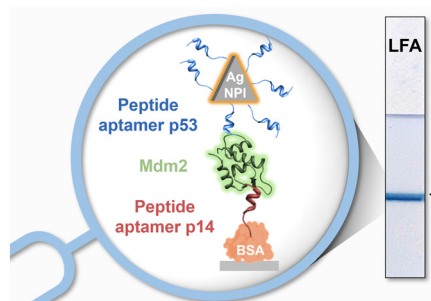
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Sandra Tejerina-Miranda, Víctor Pérez-Ginés,
Rebeca M. Torrente-Rodríguez, María Pedrero,
Ana Montero-Calle, José M. Pingarrón,
Rodrigo Barderas* and Susana Campuzano*

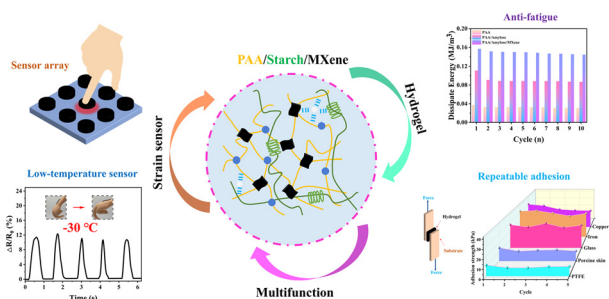


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Bryan Gosselin, Maurice Retout, Ivan Jabin*
and Gilles Bruylants*



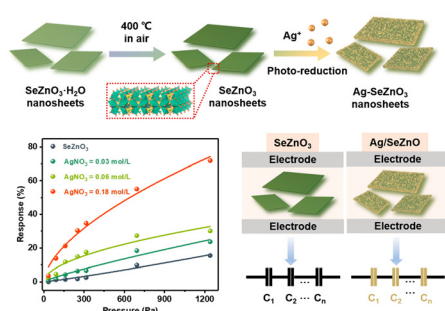
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Enhanced mechanical and electrical properties of starch-based hydrogels incorporating polyacrylic acid and MXene for advanced wearable sensors in sign language recognition

Jionghong Liang, Ke Ma, Wenshuo Gao, Yue Xin,*
Shousen Chen, Weicheng Qiu, Gengzhe Shen
and Xin He*

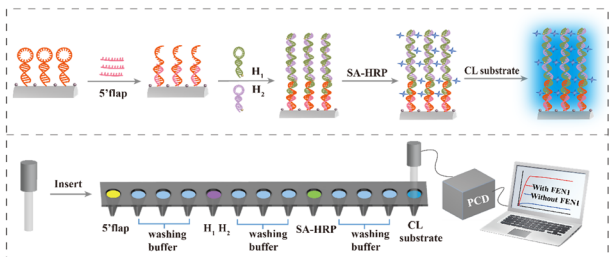
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Vertically-grown Ag nanoplates on SeZnO₃ nanosheets for an enhanced pressure sensing performance

Zeyi Wang, Yuping Li, Jian Zhang* and Xiao Huang*

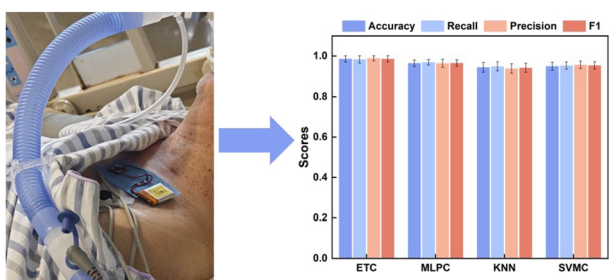
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Ultrasensitive detection of flap endonuclease 1 using a chemiluminescence optical fiber biosensor with hybridization chain reaction

Jinlan Yang, Yile Qin, Dingsong Li, Yaxue Jia, Jiahui Fu*
and Li Yang*

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Wearable stethoscope for lung disease diagnosis

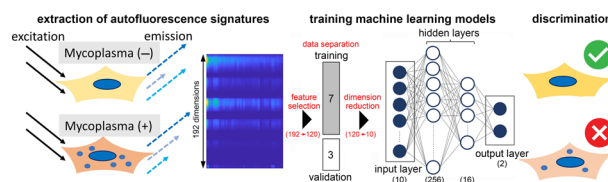
Chundong Qiu, Wenru Zeng, Wei Tian, Jingyi Xu,
Yingnan Tian, Chao Zhao* and Hong Liu*



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Discrimination of mycoplasma infection using machine learning models trained on autofluorescence signatures of host cells

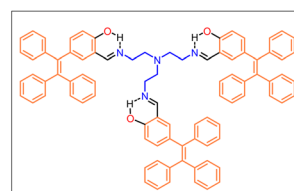
Kenzo Bamba, Kyosuke Takabe, Hiroaki Daitoku, Yoshikazu Tanaka, Azusa Ohtani, Midori Ozawa, Akiyoshi Fukamizu, Nobuhiko Nomura, Arihiro Kohara* and Tatsuki Kunoh*



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Artificial light-harvesting nanoparticles based on a tripodal fluorescence sensor mediated by multiple luminescence mechanisms

Zhiying Wu, Qiaona Zhang, Dengli Chen and Tangxin Xiao*

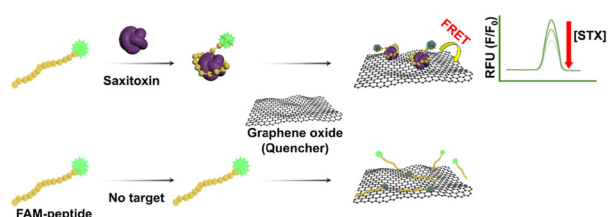


- ✓ Tripodal sensor-based nanoparticles
- ✓ Large Stokes shift because of ESIPT
- ✓ Strong fluorescence owing to AIE
- ✓ Light harvesting based on FRET
- ✓ Both Fe^{3+} and Cu^{2+} sensing abilities

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Development of fluorometric detection for saxitoxin with its specific binding peptide

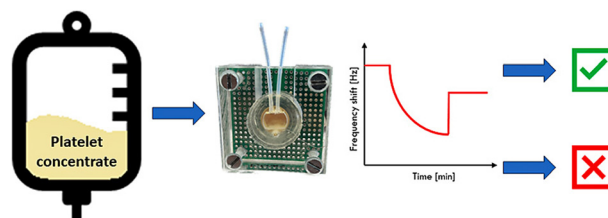
Tae Hee Kim, Chae Hwan Cho, So Yeon Kweon, Su Min Kim, Suresh Kumar Kailasa, Jong Pil Park, Chan Yeong Park* and Tae Jung Park*

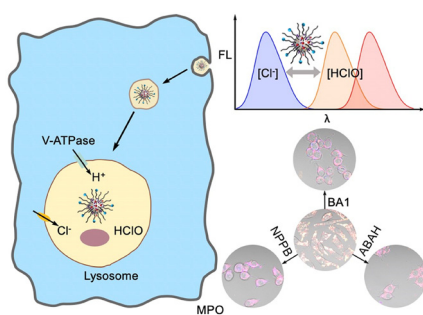


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Rapid test for platelet viability relying on a quartz crystal microbalance assay

Felix Thier and Peter A. Lieberzeit*





Spectrally separated dual functional fluorescent nanosensors for subcellular lysosomal detection of hypochlorous acid and chloride

Yunxin Cui, Jianhong Wu, Jingying Zhai,* Yifu Wang and Xiaojiang Xie*

