Special Issue

Novel Materials and Their Sensing Applications

Message from the Guest Editors

Sensors are important tools in addressing fundamental challenges related to human well-being which is defined as judging life positively and feeling good and is ensured by good health, effective agricultural production of food and green energy, and safe environments. Recent years have seen significant efforts in developing novel materials to achieve unprecedented sensing sensitivities in addressing above questions. Not all inclusive, representative research outcomes from pioneers include new molecular structures, noble-metal or single-atom based nanozymes, plasmonic nanocavities, 2D transition metal oxides, etc. Such novel materials as sensing transducers, due to their specific optical properties or electronic structures, can efficiently convert recognition events to detectable signals. They also render sensors for inner-cellular or in vivo detection, wearable/implantable device development, etc. This Special Issue calls for research papers and review articles presenting recent studies on novel materials and their sensing applications.

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