

Special Issue

Sensoric Applications of Silicon Nanostructures

Message from the Guest Editor

The application of silicon nanostructures in sensorics has many advantages, such as high sensitivity, fast response, low cost, and the ability for multiple uses. Additionally, silicon nanostructures can be obtained through various methods, such as electrochemical or metal-assisted etching of silicon, gas-phase deposition, and thermal treatment, allowing for the tuning of their morphology and properties to create materials with specific functional characteristics.

Silicon nanostructures can be used to create composite materials based on silicon and noble metal nanoparticles, which can improve detection sensitivity and selectivity. Such silicon-based plasmonic sensors can be used for the ultra-sensitive and fast detection of biomolecules and other analytes.

This issue of the IJMS is dedicated to research on the use of silicon nanostructures in sensing, which has great potential for scientific, medical, and industrial applications. Further development of this technology may lead to the creation of rapid, accurate, and efficient sensors for various fields of application.

Guest Editor

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