



MINAMI LAB.

[Applied Supramolecular Chemistry]

Department of Materials and Environmental Science

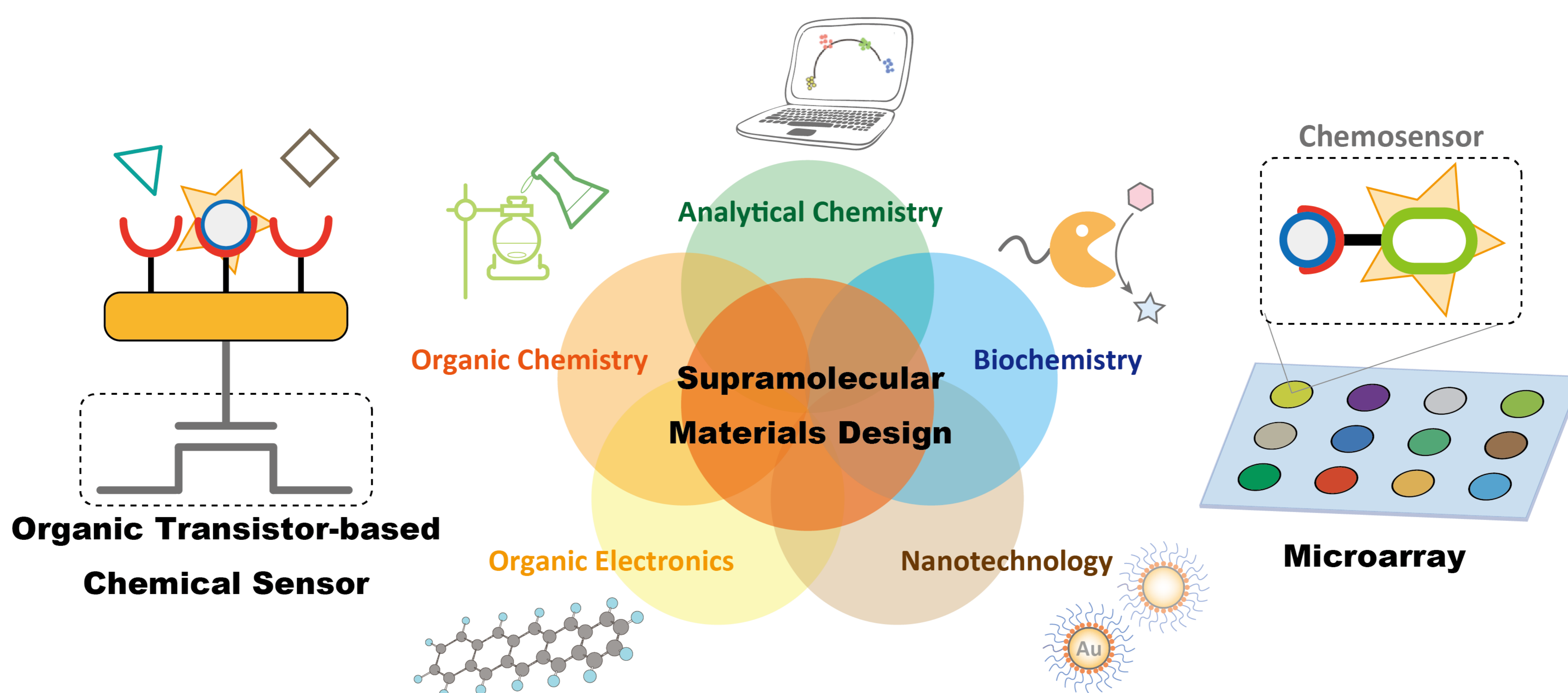
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Supramolecular Materials Design

Visualization of Molecular Function

Our group is interested in “applied” supramolecular chemistry. Especially, supramolecular sensors for biologically important species or pollutants are some of the most promising applications of molecular recognition materials. To be harnessed for rigorous analytical assignments, our research centers on molecular design and synthesis of materials as well as fabrication of devices.



■ Chemical Sensors based on Organic Thin Film Transistors Functionalized with Molecular Recognition Materials :

In the realm of electronics, organic thin film transistors (OTFTs) are some of the most interesting devices owing to their flexibility, light-weighting and environmentally-friendly. Therefore, we are developing OTFT-based chemical sensors functionalized with supramolecular artificial receptors.

■ High-throughput Analysis based on Supramolecular Sensor Arrays :

A significant amount of attention is being devoted to the development of supramolecular sensor arrays, owing to their capability to recognize a number of analytes with high classification accuracy. With that in mind, we especially focus on the simultaneous analysis of multi-analytes in biological fluids. This can contribute to develop a high-throughput analysis in the field of pharmacy, medicine and environment investigation.