

Tentative Outline

Special Thematic Issue for Current Organic Synthesis

Title of the Thematic Issue: Colorimetric and Fluorimetric Chemosensors for Detection of Anions, Cations, pH and Small Molecules

Guest Editors: Prof. Dr. Zeynel Seferoğlu and Prof. Dr. Burcu Aydiner

- **Scope of the Thematic Issue:**

Chemosensors provide the effective and rapid detection of target analytes constitute a major focus in supramolecular chemistry, photophysics, materials science, biological, and environmental chemistry. Colorimetric and fluorimetric chemosensors have become more appealing than any spectroscopic methods for both analytical sensing and optical imaging because of their high sensitivity, fast response time, and technical simplicity. Thus far, there are many synthetic and mechanistic approaches for the development of colorimetric and fluorescent probes that can detect target analytes with a high selectivity and specificity. In this regards, various sensing strategies, including intramolecular charge transfer (ICT), twisted intramolecular charge transfer (TICT), electronic energy transfer (EET), Forster resonance energy transfer (FRET), excited-state intramolecular proton transfer (ESIPT), photo-induced electron transfer (PET), chelation-induced enhancement fluorescence (CHFE), aggregation-induced enhancement emission (AIE), metal-ligand charge transfer (MLCT), monomer-excimer systems, etc., have been established. Many chemosensors have been developed for the sensing and imaging of small molecules such as cations, anions, neutral species, and biologically important molecules that are associated with human living systems, and as well as therapeutic and diagnostic applications. This Special Issue of chemosensors will be dedicated to highlighting the latest developments of all aspects of Chemosensors from fundamental to application. This Special Issue aims at presenting the latest synthetic methodology, technology and theoretical approaches developed in this interdisciplinary field of science.

Keywords: Optic probes, Chemosensors, Dyes, Fluorescent Dyes, Biomolecules

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- Colorimetric and fluorimetric sensors towards various analytes such as anions, cations and small molecules
- Fluorescent chemo sensor for determination of bioanalytes such as amino acids, DNA, RNA etc.
- Chemosensors in pH determination
- Investigation of sensing mechanisms for fluorescent chemosensors
- Colorimetric and fluorescent sensors based chemo dosimeters
- Theoretical approaches in chemo sensor applications
- Detection of real samples with chemosensors

Schedule:

- ✧ Thematic issue submission deadline: July 30, 2021

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