Tentative Outline

Special Thematic Issue for MROC

Title of thematic issue: Insights on the methodological strategies for the microbial enzymes-mediated bioremediation of toxic organic compounds: Green bio-solution of organic pollutants

Guest Editors: Dr. Pankaj Kumar Chaurasia
Dr. Shashi Lata Bharati
Dr. Sunita Singh
Prof. M.P. Singh

Aims & Scope:

Innovative biological researches for the environmental restoration and sustainability are expressively drawing the responsiveness of scientific community to solve the global challenges of serious environmental organic pollutants. Since, microbial involvement in the bioremediation of such pollutants is methodologically and scientifically looking very effective; they may be an excellent alternative of conventional chemical processing of pollutants. Thus, use of microbes and their associated enzymes/immobilized enzymes in the bio-treatment of organic pollutants may be the better bio-solution of these environmental problems and may be a better option to keep the environment sustained. This thematic issue will provide in-depth and comprehensive scientific knowledge on green bio-solution of the problems associated with the several types of noxious organic pollutants and may be very much productive to the scientific and research community for the future researches as well as for development of new methodologies.

Keywords: bioremediation, dehydrogenases, detoxification, green bio-solution, immobilized.

Subtopics:

The subtopics to be covered within this issue are listed below:

- Efficacy of selected immobilized enzyme(s) in the green treatment of pesticides, herbicides and insecticides.
- Methodological comprehensive approach to the selected enzymes mediated bioremediation of organic polymer molecules.
- Fungal/bacterial enzymes mediated detoxification of pharmaceutically active drugs.
- Assessment of the effectiveness of bacterial/fungal enzymes in the removal of xenobiotics.
- Comprehensive discussions on the role of enzymes in bio-detoxification of the solvents.
- Inclusive insights on the fungal laccase efficiency in the bio-removal of dyes pollutants.
- Strategic assessments of the capability of microbial laccase enzymes in bioremediation of xenobiotics.
- Enzymes assisted bioremediation of the industrial effluents rich in organic pollutants.
- Enzymatic treatment of polyaromatic hydrocarbons for environmental sustainability.
- Peroxidases enzymes as effective agent for the bio-removal of industrial organic wastes.

- Immobilized enzymes for the bioremediation of organic contamination.

Schedule:

Thematic issue submission deadline: 15 Sept 2022.

- Manuscript submission deadline: June 30, 2022
- Peer Review Due: Aug 15, 2022
- Revision Due: Aug 30, 2022
- Announcement of acceptance by the Guest Editors: Sept 10, 2022

Contacts:

Guest Editor Dr. Pankaj Kumar Chaurasia

Affiliation: P.G. Department of Chemistry, L.S. College, B.R.A. Bihar University, Muzaffarpur (India)

Email: pankaj.chaurasia31@gmail.com