Tentative Outline

Special Issue for Current Organic Chemistry

Guest Editor(s): Hrvoj Vančik

TITLE: Advances in Organic Solid-State Chemistry

Aims & Scope:

Interest in the reactions occurring in the solid phase, as well as on the solid-solid interface has increased rapidly because of their application in the development of the solvent-free synthetic methods. Fast development of mechanochemical methods of preparation has been successfully used in a series of organic reactions including imine condensations, cycloadditions, Michael addition, and especially organo-catalytic reactions including also asymmetric catalysis. The solid-state organic chemistry is more and more present in the scientific literature, but unfortunately, the papers are dissipated through wide variety of differently oriented scientific journals. The journals that are more specifically focused to the solid-state chemistry prevalently comprise inorganic compounds and reactions. This special issue of Current Organic Chemistry should open the opportunity to provide an overview of this organic, but also the interdisciplinary chemistry. At the moment, the scientific production in the field of organic solid-state chemistry has already reached "critical mass" when its activity is probably close to establishing a new organic chemical subdiscipline. The main directions of this research include solid-state and solvent-free synthetic methods, physical organic chemistry of solid-state reactions, topochemistry and stereospecific reactions, fundamental research of organic reaction mechanism in condensed phase, as well as theoretical approach coupled with modern spectroscopy and diffraction methods.

Key words: Solid-state synthesis, solvent-free chemistry, topochemistry, solid-state reaction mechanisms, organic solid-state reactions and molecular modeling, reactions in crystals, single crystal organic photochemistry

Subtopics:

- Solid-state synthesis
- Solvent-free synthetic methods
- Physical organic chemistry of solid-state reactions
- Topochemistry and stereospecific reactions
- Fundamental research of organic reaction mechanism in condensed phase
- Photochemistry in single crystals
- Theoretical and spectroscopy approach

Approximate Schedule:

• Manuscript Submission Deadline: 15 October 2014
• Peer Review Due: 31 December 2014
• Revision Due: 30 January 2015
• Notification of Acceptance by the Guest Editor: 10 February 2015
• Final Manuscript Due: 15 March 2015