

Tentative Outline (Preliminary Proposal of Thematic Issue)

Special/Thematic Issue for the journal Mini-Reviews in Organic Chemistry

Title of the Thematic Issue: Preparation, Characterization and Theoretical Calculations of the Polycrystal Thin Films for Optoelectronic Applications

Guest Editor's Name: Tingbin Li

Scope of the Thematic Issue: Since polycrystal thin films with good third-order nonlinear optical properties have great utilities in optical power limiting, two-photon upconversion lasing and 3D optical data storage etc. fields, there is a significant demand for such materials. The major objective of this issue is to explore optical polycrystal thin films which possess not only perfect physical and chemical stability but also excellent third-order nonlinear optical properties. Common methods that were used to characterize the thin films should be included. The new methods that were used to study the third-order nonlinear optical properties are encouraged. Density functional calculations of the linear and nonlinear optical properties of the compounds are also encouraged.

Keywords: Polycrystal thin films; nonlinear optics; density functional calculations; Z-scan; organometallic chemistry; lasers.

Sub-topics:

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

- Exploring and characterization of new organometallic compounds.
- Preparation and characterization of polycrystal thin films.
- Ultra-fast laser physics.
- Density functional calculations.

Details of Guest Editor:

Guest Editor Name: Tingbin Li

Affiliation: Taishan University

Email: tingbin@tsu.edu.cn