

**Tentative Outline**  
**Special Issue for Current Organic Chemistry**  
*Guest Editor(s): Ivan Djordjevic*

**TITLE: Surface Chemistry of Biomaterials and Biosensors**

**Aims & Scope:**

This special issue aims to provide in-depth reviews on the current progress in the field of biomaterials, biosensors and surface engineering principles of controlled interfacial phenomena between synthetic materials and biological systems. In recent decades there has been a significant development of various polymeric systems aimed for surgical implants and tissue engineering. Simultaneously, another aspect of advanced polymer engineering is development of biosensors for various biomedical applications. In either case, the strategy relies on thorough understanding of protein-material interactions and the concept of “protein surface immobilization”. This special issue should be of great interest to scientists and engineers who wish to keep updated about recent developments in surface modification techniques for a new age biomaterials and biosensors.

**Key words:**

**Subtopics:**

- Plasma polymerization and controlled surface chemistry for protein bioactivation
- Bioglass materials and development of bone cements: the importance of protein interaction on bone tissue regeneration
- Fundamental aspect of blood coagulation on polymethacrylate microspheres aimed for embolization and tumor treatment
- Growth factor immobilization on three-dimensional polymer scaffolds for tissue engineering applications
- Protein immobilization strategies for development of biosensors: covalent vs physical adsorption on polymeric surfaces
- The importance of polymer/biomolecule interfaces for microfluidic biosensors development
- Surface analysis of immobilized proteins on bioactivated implants
- Recent advances in surface engineering strategies for wound healing applications

**Approximate Schedule:**

Manuscript Submission Deadline: 1/7/2015

Peer Review Due: 1/9/2015

Revision Due: 1/10/2015

Notification of Acceptance by the Guest Editor: 1/11/2015

Final Manuscript Due: 1/1/2016