

CALL FOR PAPERS

Polymers continue to play vital roles in technological advancements in bio-related areas including biosensors, drug-delivery systems, and tissue engineering, among others. Rapid progression in the field of biomedical research has introduced new opportunities, as well as new challenges, to polymer scientists. Various polymer materials were used for fabrication of inexpensive, reliable, portable, rapid, and high throughput devices (e.g., Lab-on-a-chip and Lab-on-a-compact disk) that can serve diagnostic purposes within centralized laboratory setups as well as in resource-limited areas in needs for extreme point of care (EPOC). Polymer-based smart delivery systems made controlled and localized drug delivery possible while regenerative medicine has majorly benefited from advanced scaffolding matrices made of polymer composites that closely mimic the natural organs and tissues. The demand for perfecting these polymer-based networks remains a challenge. A fully integrated diagnostic platform capable of multiple simultaneous detections, a complex delivery system with multifunctional delivery profile which remains active over an extended course of time, and guaranteed functionality of the artificial tissues and organs are few to name from many challenges that are faced by the scientists in the field.

This special issue welcomes both original research and review articles from a wide spectrum of research, with a specific focus on the application of polymer systems in biomedical research. The Issue not only accepts polymer and/or copolymer systems with bio-related applications, but also welcomes new polymer systems that have potential applications in the biomedical discipline. In particular, the polymer-based platforms, which are assessed in real-world biomedical applications, are strongly desired.

The papers should hold a significant novelty in the design of the polymer systems and/or in the biomedical applications to be considered for publication. New polymer systems for potential bioapplications will be considered only if they offer thorough analysis and characterization of the polymer system which justifies the suitability of the developed polymer system for its intended applications.

Potential topics include but are not limited to the following:

- ▶ Polymer-based biosensors
- ▶ Polymers and hydrogels in drug delivery applications
- ▶ Applied polymers in tissue engineering
- ▶ Polymer-based artificial organs and muscles
- ▶ Polymer-based coatings and implants
- ▶ Polymers in lab-on-a-chip and organ-on-a-chip devices
- ▶ Polymer-based artificial organs or polymers in wearable devices

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/apt/depsf/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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