



Thermoresponsive Polymers for Nanocatalysis

Guest Editors:

Prof. Dr. Rafael Roa

Departamento de Física Aplicada
I, Facultad de Ciencias,
Universidad de Málaga, 29071
Málaga, Spain

Dr. Matej Kanduč

Department of Theoretical
Physics, J. Stefan Institute,
Jamova 39, P.O. Box 3000, 1001
Ljubljana, Slovenia

Deadline for manuscript
submissions:

closed (31 December 2021)

Message from the Guest Editors

Thermoresponsive polymers are a class of materials that experience a rapid and reversible change of their physical properties in response to a change in the temperature of the solution. One of the most studied thermoresponsive polymer is poly(N-isopropylacrylamide) (PNIPAM) due to its biocompatibility and LCST close to the human body temperature. Among their numerous applications, hydrogels made of thermoresponsive polymers have been recently used as ‘active’ or ‘smart’ carriers for catalytic metal nanoparticles since they not only stabilize the particles in solution but also change their catalytic activity and selectivity through the response of the hydrogel to small temperature changes in the solution environment. For that reason, such hybrid systems are commonly termed as nanoreactors.

The aim of this Special Issue is to highlight the progress and fundamental aspects for the synthesis, characterization and physicochemical properties of thermoresponsive polymers with applications in nanocatalysis.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Alexander Böker

Lehrstuhl für Polymermaterialien
und Polymertechnologie,
University of Potsdam, 14476
Potsdam-Golm, Germany

Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 5.0.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, FSTA, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q1 (Polymer Science) / CiteScore - Q1 (General Chemistry)

Contact Us

Polymers Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/polymers
polymers@mdpi.com
[X@Polymers_MDPI](https://twitter.com/Polymers_MDPI)