KEMIJSKI INŠTITUT

Vabilo na Forum40 / Invitation to the Forum40

dr. Špela Gradišar

D07, Department of Polymer Chemistry and Technology

Četrtek / Thursday, 15.10.2020 ob / at 13:00 / on WEBEX

https://ki-si.webex.com/ki-si/j.php?MTID=m009ab80de4e2da8e26ea9c026f849943
Meeting number (access code): 163 686 3219
Meeting password: Oktober2020!

Synthetic polypeptides and polypeptide-based hybrid materials

Well-defined synthetic polypeptides are traditionally prepared by ring-opening polymerization (ROP) of N-carboxyanhydride (NCA) monomers using primary amine initiators. We have developed a novel synthetic route for controlled ROP of NCA initiated by a hydroxyl group by separating the slow initiation step from the fast chain propagation using an acid catalyst. This method has enabled us to use the hydroxyl-terminated macroinitiators directly for preparation of polypeptide-based hybrid block copolymers, without the additional reaction steps required for the chain-end transformation. Moreover, we further developed a one-pot sequential synthetic procedure that combines the acid catalyzed ROP of cyclic esters or carbonates and NCA.

Vljudno vabljeni / Kindly invited