Polymer Chemistry

The home for the most innovative and exciting polymer chemistry, with an emphasis on polymer synthesis and applications thereof

rsc.li/polymers

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1759-9962 CODEN PCOHC2 16(27) 3105-3180 (2025)



Cover See Dorthe M. Eisele *et al.*, pp. 3111–3118.



Image reproduced by permission of Dorthe M. Eisele from *Polym. Chem.*, 2025, **16**, 3111.

PAPERS

3111

Microfluidic-supported emulsion polymerization: molecular weight and concentration of surface-capping agents impact the formation of anisotropic polyvinylmethacrylate particles

Nikunjkumar R. Visaveliya, Seda Kelestemur, Firdaus Khatoon, Jin Xu, Kelvin Leo, Karisma McCoy, Lauren St. Peter, Christopher Chan, Tatiana Mikhailova, Visar Bexheti, Geri Shentolli, Anushan Alagaratnam, Saad Ahmed, Piyali Maity and Dorthe M. Eisele*



3119

Furfural-derived 5-alkoxy-2(5*H*)-furanones as cationically copolymerizable cyclic hemiacetal esters

Naoki Higashibata, Sadahito Aoshima and Arihiro Kanazawa*

Derived from furfural · Cyclic hemiacetal ester · Nonhomopolymerizable





RSC Applied Polymers

The application of polymers, both natural and synthetic

Interdisciplinary and open access

rsc.li/RSCApplPolym

Fundamental questions Elemental answers GOLD OPFN

ACCESS

PAPERS

3129

Cationic porous organic polymers for selective adsorption in gas and liquid phases

Pinpin Wang,* Kai Zhang, Ran Chen, Yan Lu, Feng Li, Tingting Sun, Xinli Song, Xinyu Li and Liping Cao*



3138

Tuning the properties of polysulfides using functionalised cardanol crosslinkers

Mahsaalsadat Rokni, Manon Lambert and Erin M. Leitao*



3146

Stable self-assemblies of polyhydroxybutyratebased diblock and triblock copolymers nanoprecipitated in water: influence of their hydrophilic weight fraction

Ghislaine Barouti, Cédric Gaillard, Sophie M. Guillaume* and Christophe Chassenieux*



3156

Mechanically robust but dynamic elastomers as functional coatings based on dynamic covalent bonds and multiple noncovalent interactions

Xiao Yang, Dianteng Zhao, Yichen Huang, Xinyun Li,* Bo Zheng* and Lingyan Gao*



PAPERS







 Dibenzosuberyl iminopyridyl Ni(II) catalysts
 High MFI (16-22 g/10 min) polyolefin

 1, High activity (10⁶ g mol⁻¹ h⁻¹)
 elastomers with outstanding volume

 2, Suppressing chain transfer (54-157 kg mol⁻¹)
 resistivity (151-321×10¹⁵ Ωm)

Pd-initiated C1 polymerization of diazoacetates with hydroxy-protected sugar substituents: syntheses of a new type of protected sugarcontaining C1 polymer (C1 glycopolymer)

Hiroaki Shimomoto,* Kaito Murakami, Minami Toratani, Miho Kudo, Tomomichi Itoh and Eiji Ihara*

Synthesis of high MFI polyolefin elastomers using dibenzosuberyl iminopyridyl Ni(11) catalysts

Jun Gan and Shengyu Dai*