

# Polymer Chemistry

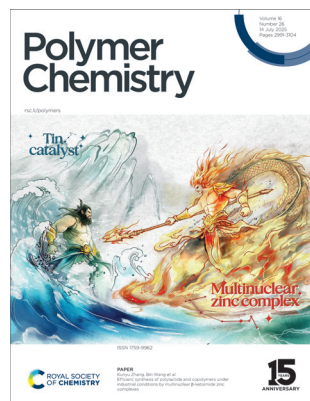
The home for the most innovative and exciting polymer chemistry, with an emphasis on polymer synthesis and applications thereof

[rsc.li/polymers](https://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(26) 2991–3104 (2025)



### Cover

See Kunyu Zhang, Bin Wang *et al.*, pp. 3030–3040.

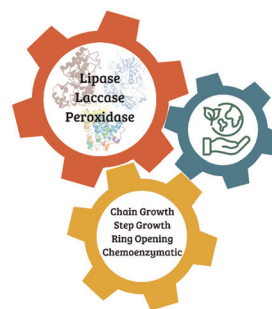
Image reproduced by permission of Yu Cheng from *Polym. Chem.*, 2025, **16**, 3030.

## REVIEW

2997

### Harnessing enzymes for greener polymerisations: advances in chain and step growth processes

Emily G. Dixon,\* Luisa Ciano, Anca Pordea, Karen Alvey and Vincenzo Taresco\*

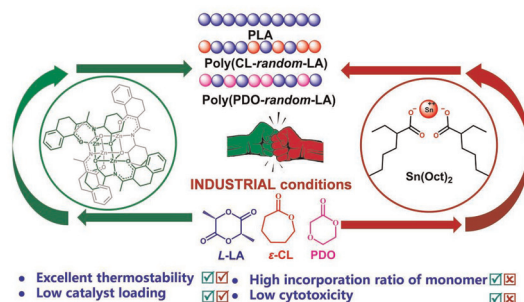


## PAPERS

3030

### Efficient synthesis of polylactide and copolymers under industrial conditions by multinuclear $\beta$ -ketoimide zinc complexes

Yu Cheng, Ziheng Zhao, Xiaowei Xu, Chunxiao Ren, Xiaohui Wei, Yanxiang Yang, Jin Li, Daqiang Jiang, Kunyu Zhang,\* Bin Wang\* and Yi Luo



**GOLD  
OPEN  
ACCESS**

# EES Solar

**Exceptional research on solar  
energy and photovoltaics**

Part of the EES family

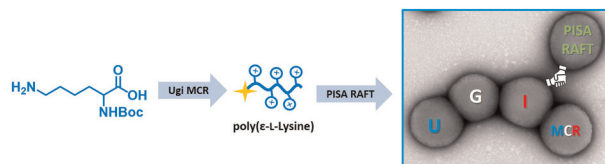
**Join  
in** | Publish with us  
[rsc.li/EESolar](https://rsc.li/EESolar)

## PAPERS

3041

### Poly( $\epsilon$ -L-lysine)-decorated particles with a tunable morphology by a combination of Ugi multicomponent polymerisation and RAFT-mediated PISA

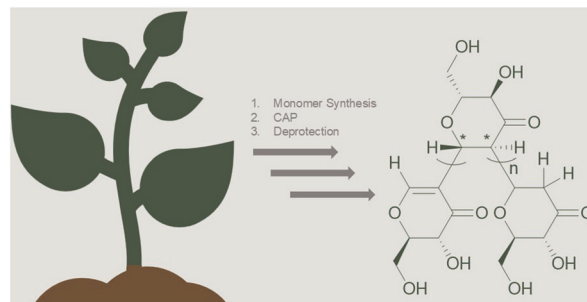
Thi Phuong Thu Nguyen, Lei Lei, Emily G. Dixon, Cl  mence Le Coeur, Vincenzo Taresco, Antoine Debuigne and Benoit Couturaud\*



3051

### Synthesis of poly(3-keto-D-glucal) *via* conjugate addition polymerization

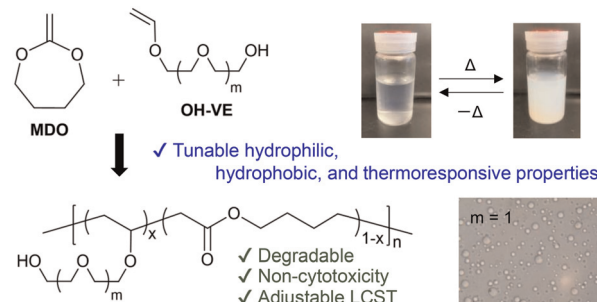
Mudassir M. Syed, Madelyn K. Funke, Logan P. Blackham and Samantha L. Kristufek\*



3059

### Design and synthesis of thermoresponsive degradable copolymers: integrating hydroxy-functional vinyl ethers with cyclic ketene acetals

Shinji Sugihara,\* Atsushi Endo, Komal Raje, Atsushi Matsumoto, Satoshi Fujita and Yasushi Maeda



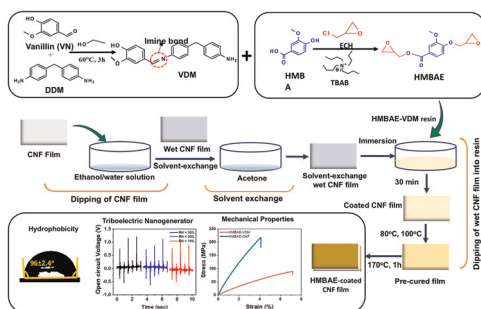
3070

### Choice of photo-excitation conditions in xanthate-supported photo-iniferter (XPI) RAFT polymerization

Vitalii Tkachenko, Tzu-Chien Wu, Anahita Heraji Esfahani, Johannes Gurke and Matthias Hartlieb\*



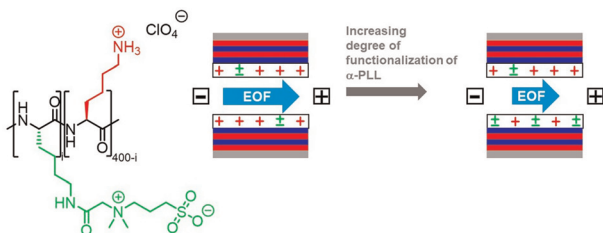
3079



### Preparation of a biomass-derived imine hardener, biobased epoxy thermoset and their coating on cellulose nanofiber film for high-performance and energy-harvesting applications

Bijender Kumar, Muhammad Latif, Samia Adil and Jaehwan Kim\*

3092



### Adjusting the electroosmotic flow for CE separation of proteins by using poly( $\alpha$ -L-lysine)-based mixed polycationic/polyzwitterionic multilayer coatings

Henry Frick, Laura Dhellemmes, Alisa Höchsmann, Laurent Leclercq, Christian Neusüß, Hervé Cottet and Norbert Schaschke\*

