

Polymer Chemistry

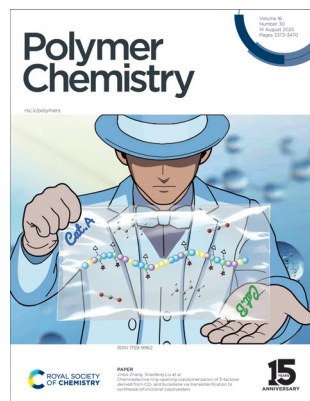
The home for the most innovative and exciting polymer chemistry, with an emphasis on polymer synthesis and applications thereof

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(30) 3373–3470 (2025)



Cover

See Jinbo Zhang,
Shaofeng Liu *et al.*,
pp. 3423–3431.

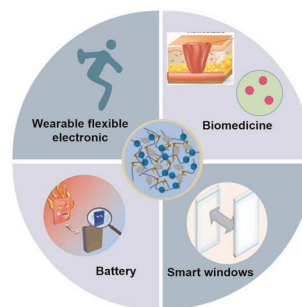
Image reproduced by
permission of Shaofeng Liu
from *Polym. Chem.*, 2025,
16, 3423.

REVIEWS

3379

Thermoresponsive hydrogels incorporating phase-change energy storage materials for advanced thermal management

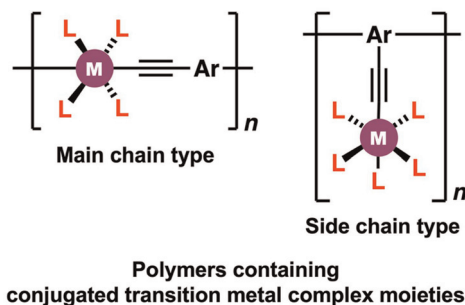
Zhuoni Jiang, Jian Tang, Chaochao Zhang, Yeping Xie* and Jinxing Chen*



3396

Synthesis, structure control and functions of polymers containing conjugated transition metal complex moieties

Fumio Sanda



Environmental Science: Atmospheres

 GOLD
OPEN
ACCESS

Connecting communities
and inspiring new ideas

rsc.li/submittoEA

Fundamental questions
Elemental answers



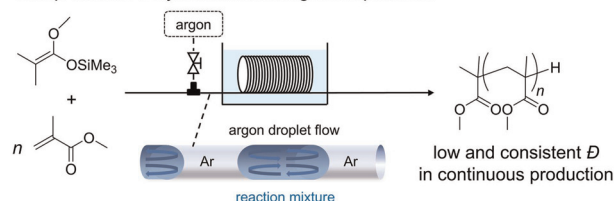
COMMUNICATION

3416

Group transfer polymerization by argon droplet flow for continuous and consistent production of well-defined polymers

Ryo Takabayashi, Stephan Feser, Hiroshi Yonehara, Mamoru Hyodo, Ilhyong Ryu and Takahide Fukuyama*

Group Transfer Polymerization in Argon Droplet Flow

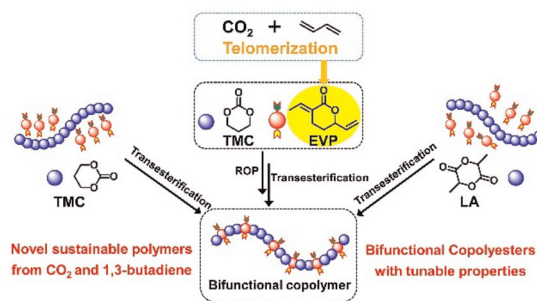


PAPERS

3423

Chemoselective ring-opening copolymerization of δ -lactone derived from CO_2 and butadiene via transesterification to synthesize bifunctional copolyesters

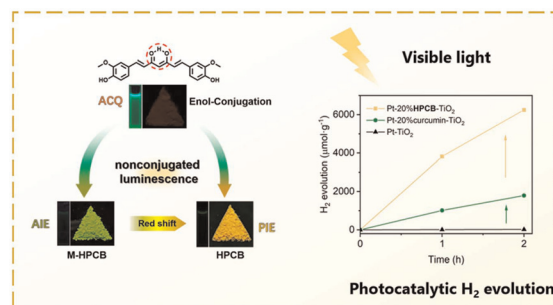
Junhao Shen, Lihang Jiang, Wenhui Kong, Zheng Zhou, Nuo Li, Jinbo Zhang,* Shaofeng Liu* and Zhibo Li



3432

A nonconjugated AIE polymer from enol-conjugated ACQ curcumin through nucleophilic substitution polymerization-induced emission towards enhanced photocatalytic hydrogen evolution

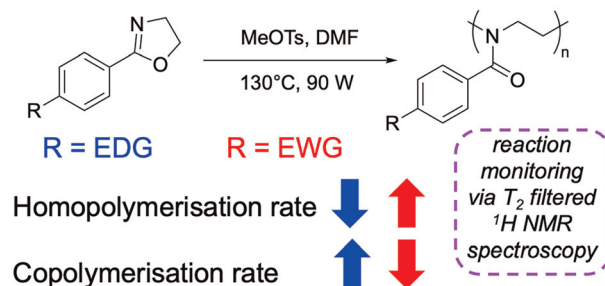
Jing-Yun Mao, Shi-Xuan Ye, Yong Yang, Cheng-Jing Lu, Xiao-Li Sun,* Hun Xue* and Wen-Ming Wan*



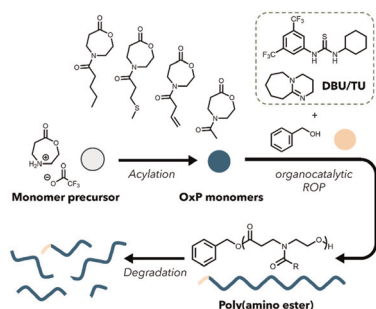
3443

Influence of *para*-substitution on the polymerisation kinetics of 2-phenyl-2-oxazolines

Chloe M. Shilling, Lloyd A. Shaw, Juan A. Aguilar, William D. G. Brittain* and Clare S. Mahon*



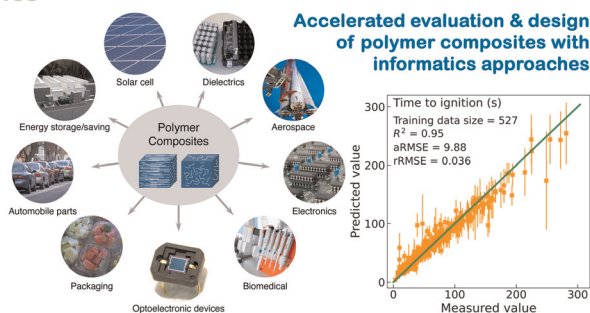
3450



1,4-Oxazepan-7-one trifluoroacetate: a modular monomer precursor for the synthesis of functional and biodegradable poly(amino esters)

Tino Mackiol, Chloé Pascouau, Manuel Nagel, Tamara M. Bizmark, Luca Montesel, Jochen Fischer-Schuch and Pol Besenius*

3459



Polymer composites informatics for flammability, thermal, mechanical and electrical property predictions

Huan Tran,* Chiho Kim, Rishi Gurnani, Oliver Hvidsten, Justin DeSimpliciis, Rampi Ramprasad, Karim Gadelrab, Charles Tuffile, Nicola Molinari, Daniil Kitchaev and Mordechai Kornbluth

