

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 15(24) 2431–2530 (2024)



Cover

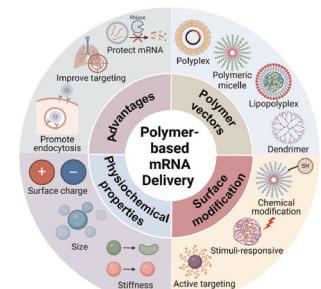
Image credit: © Nemes Laszlo/Science Photo Library/
Getty Images

REVIEW

2437

Rational design of polymer-based mRNA delivery systems for cancer treatment

Qianyu Wan, Yuji Sun, Xuanrong Sun* and
Zhuxian Zhou*

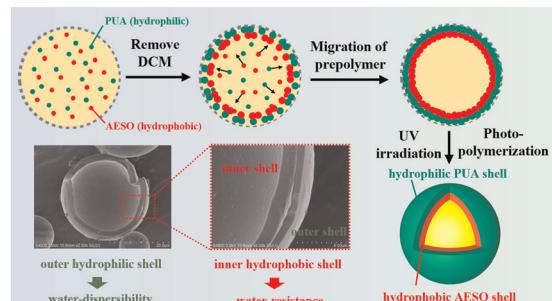


COMMUNICATION

2457

One-step preparation of hydrophilic–hydrophobic asymmetric bilayer microcapsules via photopolymerization

Kaiyun Wu, Yongbin He, Jiangqing Liu, Guanqing Sun,
Ren Liu and Jing Luo*



ChemComm

Uncover new possibilities
with outstanding
preliminary research

Original discoveries, fuelling
every step of scientific progress

rsc.li/chemcomm

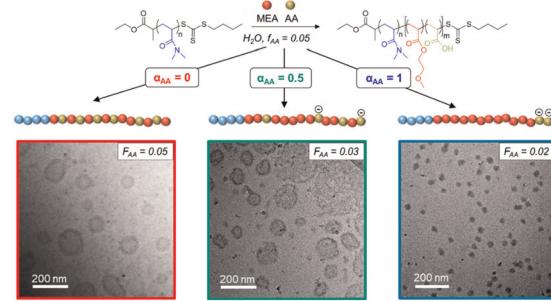
Fundamental questions
Elemental answers

PAPERS

2462

Effect of pH on the incorporation of acrylic acid units in the core of polymer nanoparticles prepared by PISA and on their morphology

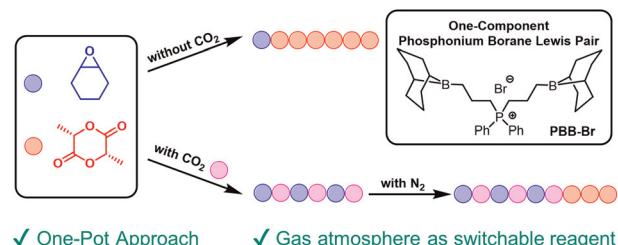
Clément Debrie, Noémie Coudert, Jean-Michel Guigner, Fanny Coumes, Clément Guibert, Simon Harrisson, François Stoffelbach, Olivier Colombani* and Jutta Rieger*



2476

A one-pot approach towards polycarbonate-*b*-polyester block copolymers via chemoselective polymerization catalyzed by a one-component phosphonium borane Lewis pair

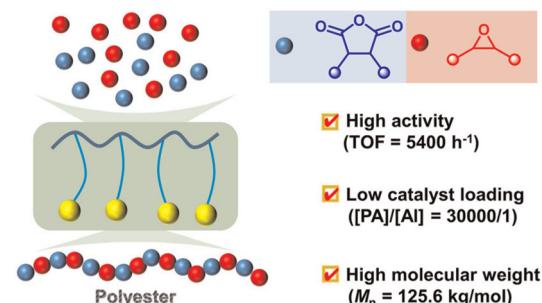
Yutao Li, Xinhui Kou, Xiaowu Wang,* Lin Xia* and Zhibo Li*



2482

Highly active aggregate catalysts for the synthesis of high-molecular-weight polyesters via copolymerization of epoxides and cyclic anhydrides

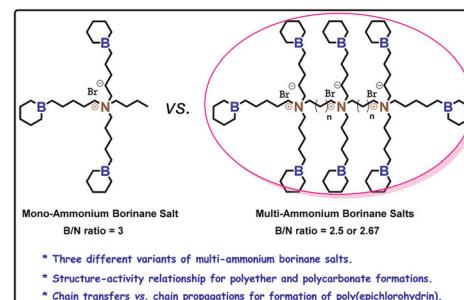
Liehang Yang, Shunjie Liu,* Peixin Fan, Fengxiang Gao, Xuan Pang, Xuesi Chen and Xianhong Wang*



2492

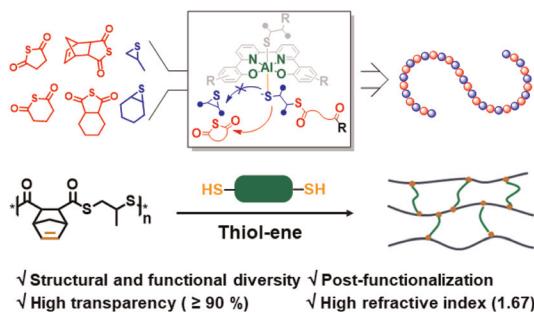
Exploring borinane-based multi-ammonium salts for epoxide (co)polymerization: insights into the structure–activity relationship

Vamshi K. Chidara, Yves Gnanou* and Xiaoshuang Feng*



PAPERS

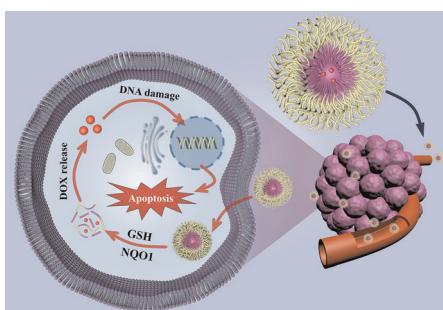
2502



Cyclic thioanhydride/episulfide copolymerizations catalyzed by bipyridine-bisphenolate aluminum/onium pair: approach to structurally and functionally diverse poly(thioester)s

Kaixiang Han, Mingqian Wang, Zhiqiang Ding, Zijing Zhou, Bin Wang* and Yuesheng Li

2513



A dual-responsive polyurethane nanocarrier for drug release triggered by intracellular GSH and NQO1 enzyme

Shuai Yang, Jinhai Xie, Dongdong Wang, Shuangyu Tian, Yaodong Di and Lesan Yan*

