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(26) 2621-2712 (2024)



Cover

See Jeffrey M. Ting et al., pp. 2627-2633.

Image reproduced by permission of Nanite Inc. from Polym. Chem., 2024, 15, 2627. Image credit: DNA helix by Inna, molecule model by Shuo: Adobe Stock. Matteo Ronchetti is gratefully acknowledged for his pointillism algorithm (https://github. com/matteo-ronchetti/).

COMMUNICATION

2627

Predictive design of multimonomeric polyelectrolytes enables lung-specific gene delivery

Jeffrey M. Ting,* John D. Fisher, Tyler Conyers, Suteja Patil, Catherine G. Robohn, Teresa Tamayo-Mendoza, Felipe Oviedo and Shashi K. Murthy





New Era in Polymers for Gene Delivery

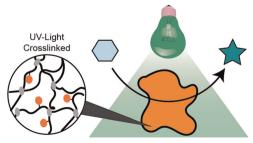


PAPERS

2634

UV-light crosslinked photocatalytic polymer gels for batch and continuous flow reactions

Sarah Freeburne and Christian W. Pester*



Photocatalyst Gel





ChemComm

Uncover new possibilities with outstanding preliminary research

Original discoveries, fuelling every step of scientific progress

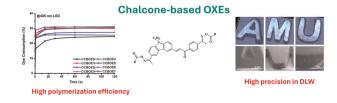
rsc.li/chemcomm

Fundamental questions
Elemental answers

PAPERS

Synthesis of carbazole-chalcone bis-oxime esters (CCBOEs) as blue light photoinitiators of polymerization

Zheng Liu, Yijun Zhang, Ji Feng, Bin Song, Tong Gao, Céline Dietlin, Fabrice Morlet-Savary, Michael Schmitt, Didier Gigmes, Frédéric Dumur* and Jacques Lalevée*



2652

Novel nitrogen-rich conjugated microporous polymers for efficient capture of iodine and methyl iodide

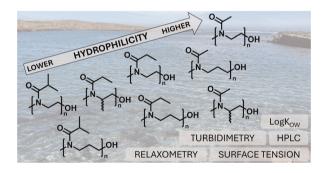
Jiaxin Yang, Shenglin Wang, Qiangian Yan, Hui Hu,* Huanjun Xu, Haibin Ma,* Xiaofang Su and Yanan Gao*



2662

Comparison of the hydrophilicity of water-soluble poly(2-alkyl-2-oxazoline)s, poly(2-alkyl-2-oxazine)s and poly(2,4-dialkyl-2-oxazoline)s

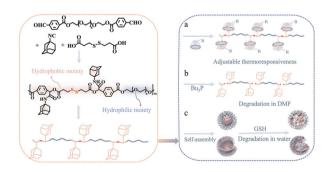
Kelly Mint, Joshua P. Morrow, Nicole M. Warne, Xie He, David Pizzi, Shaffiq Zainal Osman Shah, Gregory K. Pierens, Nicholas L. Fletcher, Craig A. Bell, Kristofer J. Thurecht* and Kristian Kempe*



2677

Degradable polymers with adjustable thermoresponsiveness based on multicomponent polymerization and molecular recognition

Yue Zhang,* Shasha Liu and Changlan Xu

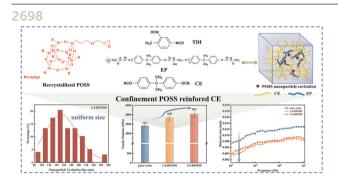


PAPERS

2687

Flexing with lignin: lignin-based elastomers synthesised from untreated kraft black liquor

Philip Verdross, Robert T. Woodward* and Alexander Bismarck*



Controllable confinement nano-reinforced organic-inorganic cyanate ester resins with optimal modulus and dielectric properties trade-offs

Yushan Wu, Yu Xiang, Hantian Lu, Faxiang Qin, Peng Xu* and Hua-Xin Peng