

Polymer Chemistry

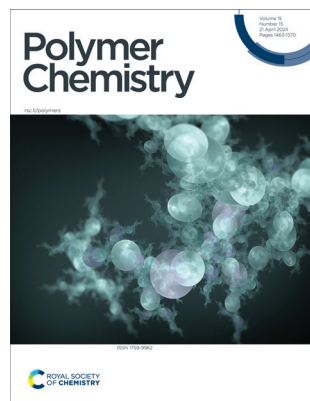
The home for the most innovative and exciting polymer chemistry, with an emphasis on polymer synthesis and applications thereof

rsc.li/polymers

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Cover

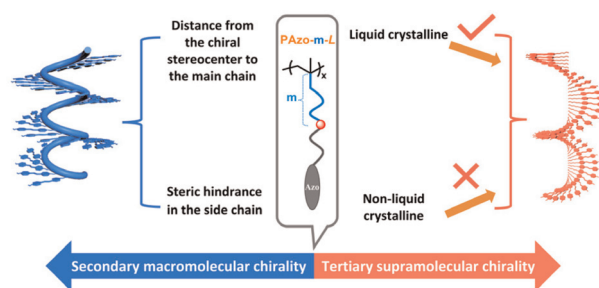
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COMMUNICATION

1469

Construction of secondary and tertiary chiral structures in side-chain azobenzene polymers with flexible main chains

Dongdong Liu,* Jinyan Zhao, Yafei Ma, Xi Zhao, Shengyu Shi, Shi Li, Qingping Song,* Xiaoxiao Cheng* and Wei Zhang*

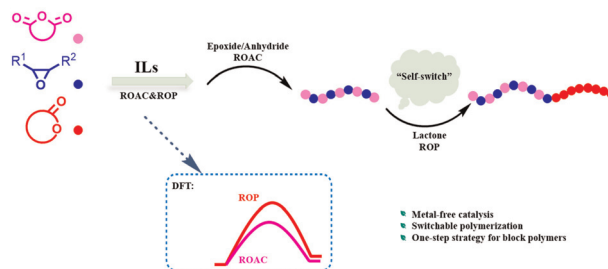


PAPERS

1475

Switchable copolymerization of mixed monomers catalyzed by imidazolium ionic liquids

Xue Wu, Yongli Li, Jingjing Yu, Yefan Liu, Zhidong Li, Yang Zhang and Pengfei Song*





<https://polycond-2024.sciencesconf.org/>

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Topics:

Recent advances in polycondensation polymers (photocatalysis, enzymatic catalysis, biocatalysis, assisted microwave polymerisation, polymerisation in ionic liquid solvents, in deep eutectic solvents, solid-state chemistry)

Polymers from biosourced monomers (synthesis, properties)

Polymers from direct arylation reaction (synthesis, properties)

Multi-component polycondensation

Functional polymers: synthesis, properties (ionic conducting properties, optoelectronic properties, gas permeation properties, electrochemical properties, electrochromic properties)

High performance polymers: synthesis, properties

Polymers of intrinsic microporosity: synthesis, properties

Hybrid organic / inorganic materials

Polymer processing: Extrusion, reactive extrusion, injection molding, 3D printing, electro-spray/spinning

Polycondensation and artificial intelligence (machine learning)

Thermosetting materials

Recycling/depolymerisation of polycondensates

Covalent Adaptable Networks

A wide range of application fields

**Polymers for the development of new materials to answer
current societal issues concerning :**

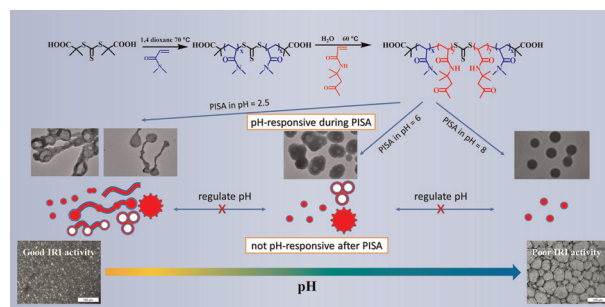
- ☐ **Renewable energy :**
Materials for batteries, fuel cells, redox-flow batteries, supercapacitors
- ☐ **Optoelectronics, Electric and Electronic applications :**
OLED, smart windows, ...
- ☐ **Membrane separation processes :**
water desalination, gas separation purposes, water purification
- ☐ **(Bio)medical applications :**
High-tech prothese, anti-bacterial material
- ☐ **Others (Packaging, automotive applications)**

PAPERS

1484

Polymerization-pH tailored RAFT-mediated polymerization-induced self-assembly for ice recrystallization inhibiting the investigation

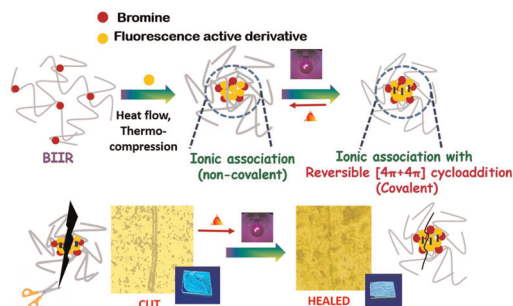
Huangbing Xu, Teng Qiu, Haotian Shi, Xiaoqian Tian, Xiaoyu Li* and Longhai Guo*



1495

Reversible dual crosslinking in anthracenyl functionalized butyl elastomers based on ionic interaction and (4 + 4) cycloaddition mechanisms

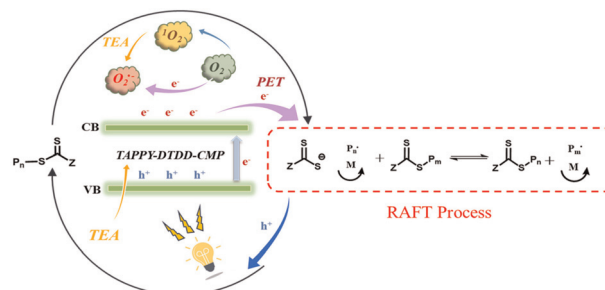
Shrabana Sarkar, Sarthik Samanta, E. Bhoje Gowd and Nikhil K. Singha*



1504

Visible light-triggered non-deoxygenated PET-RAFT polymerization by heterogeneous conjugated microporous polymer photocatalysts

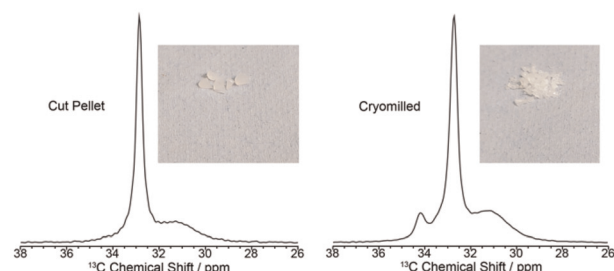
Xin Cao, Zhen Lu, Hongjie Yang, Rui Zhao, Longqiang Xiao* and Linxi Hou*



1511

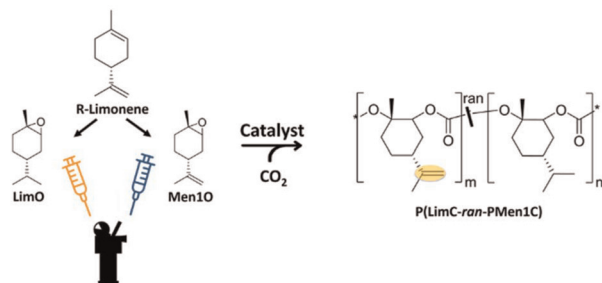
Characterisation of formulated high-density poly(ethylene) by magic angle spinning nuclear magnetic resonance

Alyssa M. Rose, Andrew R. McLauchlin, George Wilson, Tom O. McDonald and Frédéric Blanc*



PAPERS

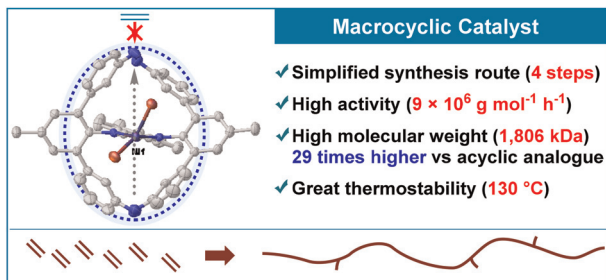
1522



Bio-based, random terpolymers with defined functionality based on poly(limonene carbonate-*ran*-menth-1-ene carbonate)

Marcel Höferth, Holger Schmalz and Andreas Greiner*

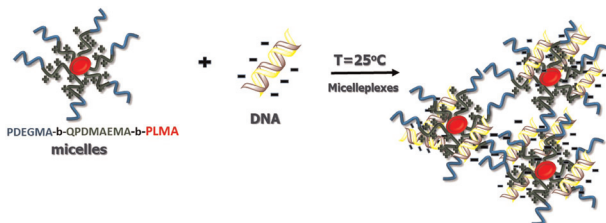
1530



An aza-cyclophane supported macrocyclic α -diimine nickel catalyst for ethylene polymerization

Jingshuang Yang, Yue Chi,* Yuxing Zhang* and Zhongbao Jian*

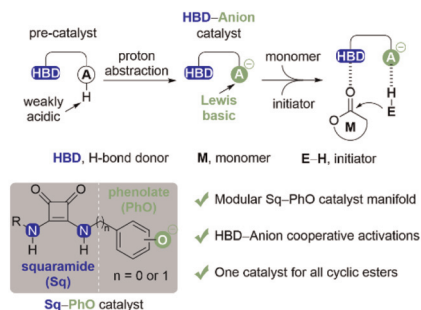
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PDEGMA-*b*-PDMAEMA-*b*-PLMA triblock terpolymers and their cationic analogues: synthesis, stimuli responsive self-assembly and micelleplex formation

Despoina Giaouzi and Stergios Pispas*

1552



Development of a H-bond donor-Lewis basic anion bifunctional organocatalyst for ring-opening polymerizations

Bo Liu, Peng Kang, Zhenjiang Li,* Na Shi, Qi Xin, Ziqi Liu, Tao Cai, Jun He, Chunyu Li and Kai Guo*

