

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(4) 389-504 (2025)



Cover

See Shiao-Wei Kuo *et al.*,
pp. 422–432.

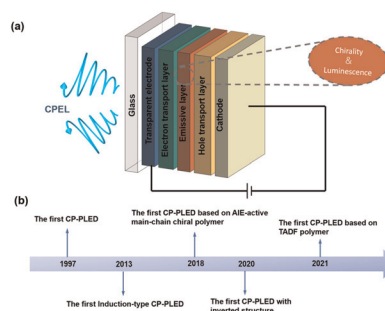
Image reproduced
by permission of
Mohammed G. Kotp and
Shiao-Wei Kuo from
Polym. Chem., 2025, **16**, 422.

REVIEW

396

Circularly polarized polymeric light-emitting diodes: preparation and properties

Na Wang, Huli Yu,* Hai Zhong, Min Duan,
Jianping Deng* and Biao Zhao*

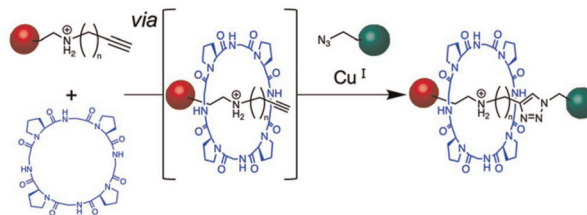


COMMUNICATIONS

409

Synthesis of cyclic peptide-based [2]rotaxanes via copper-catalyzed azide–alkyne cycloaddition

Taichi Kurita and Keiji Numata*



GOLD
OPEN
ACCESS

RSC Applied Polymers

**The application of polymers,
both natural and synthetic**

Interdisciplinary and open access

rsc.li/RSCApplPolym

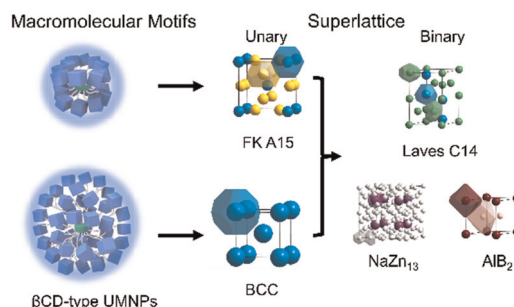
**Fundamental questions
Elemental answers**

COMMUNICATIONS

415

Rational design and size regulation of unimolecular nanoparticles for constructing diverse superlattices in soft matter

Huanyu Lei, Xing-Han Li, Han Hao, Yuchu Liu, Qing-Yun Guo* and Mingjun Huang*

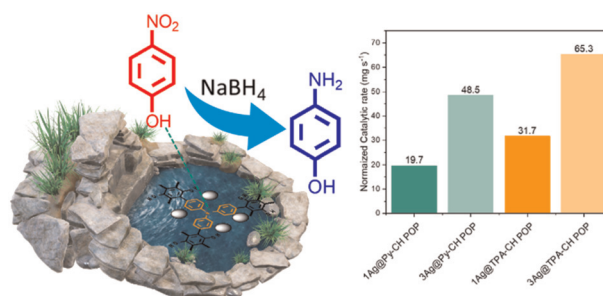


PAPERS

422

Rational decoration of porous organic polymers with silver nanoparticles for strategic reduction of hazardous nitroaryl compounds

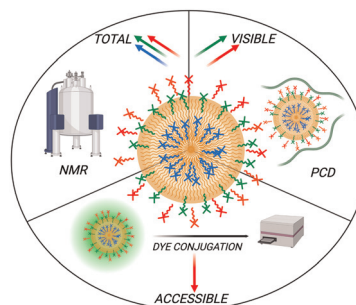
Mohammed G. Kotp, Ahmed F. M. EL-Mahdy and Shiao-Wei Kuo*



433

Tailoring reactive handles on the surface of nanoparticles for covalent conjugation of biomolecules

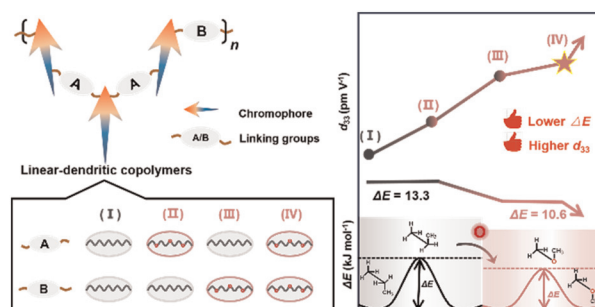
Francesca Mazzotta, Sharafudheen Pottanam Chali, Ingo Lieberwirth, Calum T. J. Ferguson and Katharina Landfester*



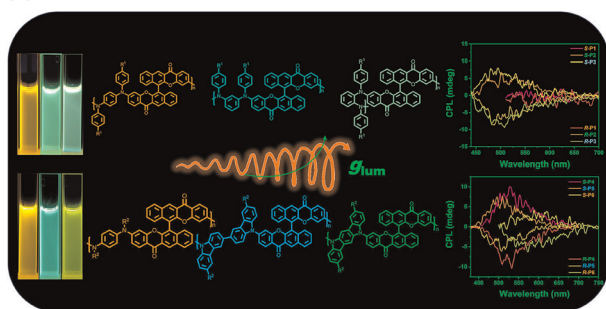
441

High second-order nonlinear optical effect achieved by gradually decreased rotational energy barriers

Panpan Qiao, Wentao Yuan, Qianqian Li* and Zhen Li*



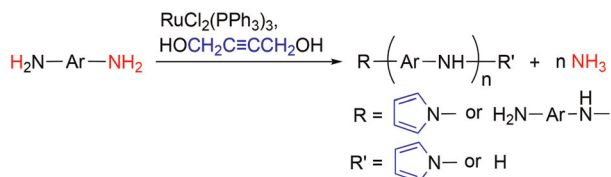
450



Tunable circularly polarized luminescence of D–A type chiral conjugated oligomers via achiral donors

Yuxiang Wang,* Yabin Feng, Qian Wang and Qi Meng*

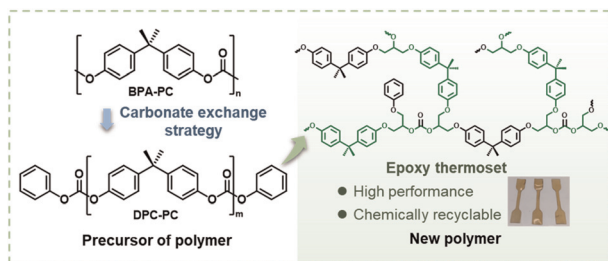
458



Ruthenium-complex-catalysed de-ammonification polycondensation of aromatic diamines

Isao Yamaguchi,* Takahiro Ooba and Kohei Imoto

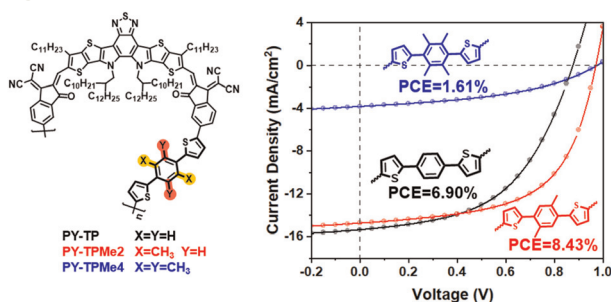
465



The carbonate exchange reaction strategy for chemical recycling of poly(bisphenol A carbonate) into an epoxy-curing agent

Zengping Peng, Haoyue Chen, Maoqing Chai, Rulin Yang,* Guangqiang Xu,* Hongguang Sun and Qinggang Wang*

475



Modulating the packing and photovoltaic performance of (bisthiophene)benzene-linked polymer acceptors through simple methylation engineering

Ruiqi An, Mengqi Cao, Hongxiang Li, Zhongxiang Peng, Xiaofu Wu,* Hui Tong* and Lixiang Wang*

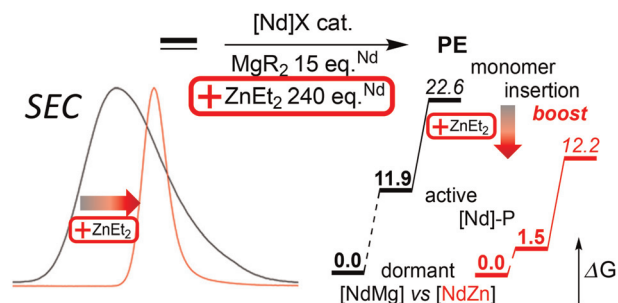


PAPERS

484

Association of Zn- and Mg-based chain transfer agents in coordinative chain transfer polymerizations of olefins for enhanced control and activity

Ariane Desgranges, Ludmilla Verrieux, Victor Lancenet, Nicolas Baulu, François Jean-Baptiste-dit-Dominique, Robert Ngo, Franck D'Agosto,* Marie-Eve L. Perrin* and Christophe Boisson*



492

Dual orthogonal metal-complexes and their utilization for the versatile fabrication of smart interpenetrating polymer networks

Thomas Bätz, Michael F. Agyemang, Josefine Meurer, Julian Hniopek, Stefan Zechel, Michael Schmitt, Jürgen Popp, Martin D. Hager and Ulrich S. Schubert*

