

Polymer Chemistry

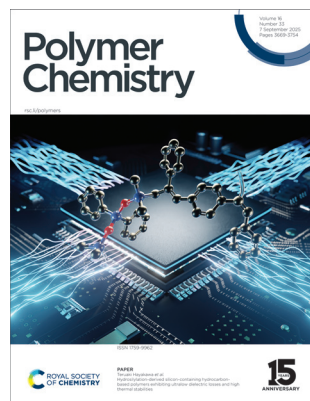
The home for the most innovative and exciting polymer chemistry, with an emphasis on polymer synthesis and applications thereof

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(33) 3669–3754 (2025)



Cover

See Teruaki Hayakawa *et al.*,
pp. 3683–3692.

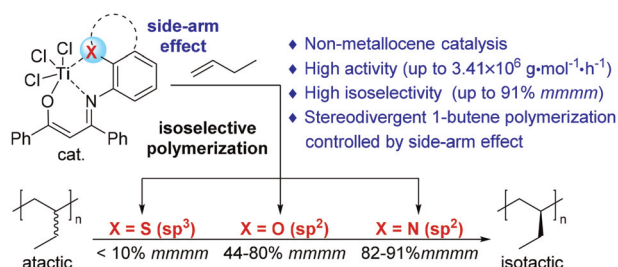
Image reproduced
by permission of
Teruaki Hayakawa
from *Polym. Chem.*,
2025, **16**, 3683.

COMMUNICATION

3675

The side-arm-effect controlled stereodivergent polymerization of 1-butene

Guangyu Zhu, Liang Wang, Wenjie Tao,* Hongbin Hou, Guangqiang Xu, Bo Wang and Qinggang Wang*

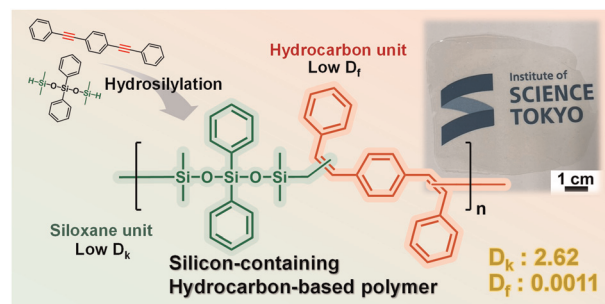


PAPERS

3683

Hydrosilylation-derived silicon-containing hydrocarbon-based polymers exhibiting ultralow dielectric losses and high thermal stabilities

Yuka Azuma, Riku Takahashi, Natsuko Sashi, Kan Hatakeyama-Sato, Yuta Nabae, Ririka Sawada, Shinji Ando and Teruaki Hayakawa*



Environmental Science: Atmospheres

GOLD
OPEN
ACCESS

Connecting communities
and inspiring new ideas

rsc.li/submittoEA

Fundamental questions
Elemental answers

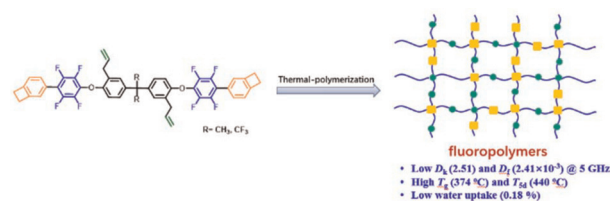


PAPERS

3693

Functional fluoropolymers with good low-dielectric properties and high thermostability

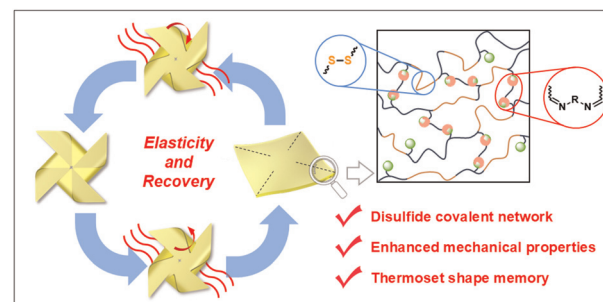
Maowei Yang, Jiaren Hou, Zhiqiang Wang, Xiao Wu, Xiaopeng Sun, Qixin Zhuang,* Jing Sun* and Qiang Fang*



3701

Elemental sulfur utilization: construction of a reprocessable covalent crosslinked polydisulfide with enhanced mechanical properties

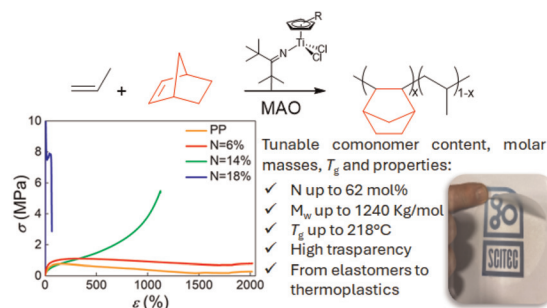
Ji-Yan Chao, Tian-Jun Yue, Xiao-Bing Lu and Wei-Min Ren*



3709

Poly(propene-co-norbornene)s with high molar masses and tunable norbornene contents and properties, obtained in high yields using ketimide-modified half-titanocene catalysts

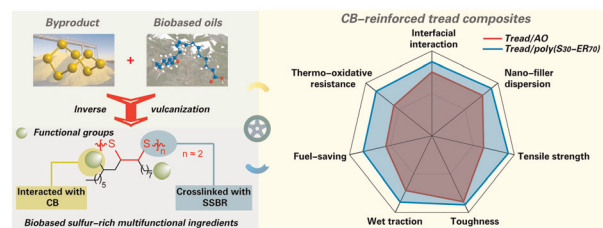
Simona Losio, Laura Boggioni, Adriano Vignali, Fabio Bertini, Akito Nishiyama, Kotohiro Nomura* and Incoronata Tritto*



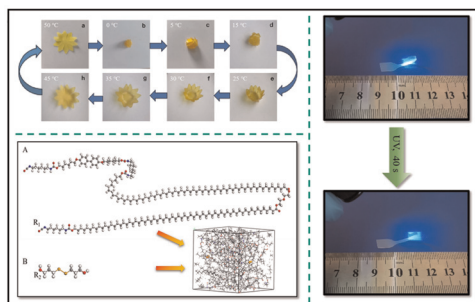
3720

Biobased multifunctional ingredients for manufacturing tire treads with high mechanical strength and fuel-saving efficiency

Mingxu Wu, Xin He, Songbo Zhang,* Qizhou Yu, Pibo Liu, Shuwei Wang* and Yanming Hu*



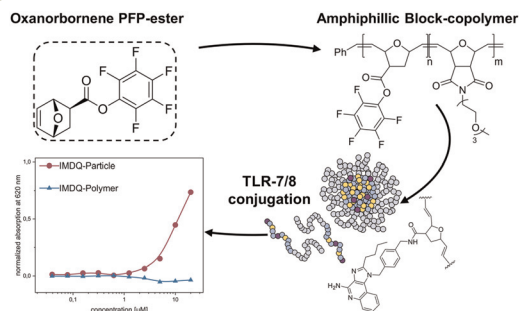
3732



Synthesis and molecular dynamics simulation of photo-thermal responsive liquid crystal shape memory polymers with dynamic diselenide bonds

Zilong Yang, Di Wu, Caiyun Ren, Jianfeng Ban,*
Lulu Pan,* Jiaping Zhu* and Kai Liu*

3743



Immunostimulatory pH-responsive nanogels derived from poly(oxanorbornene) precursor polymers

Johannes Kockelmann and Lutz Nuhn*

