

# Polymer Chemistry

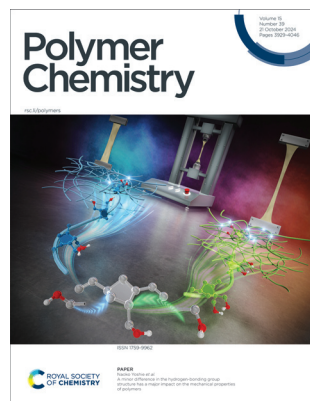
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## IN THIS ISSUE

ISSN 1759-9962 CODEN PCOHC2 15(39) 3929–4046 (2024)



### Cover

See Naoko Yoshie *et al.*,  
pp. 3967–3976.

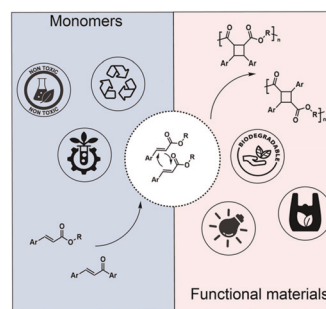
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from *Polym. Chem.*, 2024,  
**15**, 3967.

## REVIEW

3935

### Truxinates and truxillates: building blocks for architecturally complex polymers and advanced materials

Sara El-Arid, Jason M. Lenihan, Aaron B. Beeler\* and Mark W. Grinstaff\*



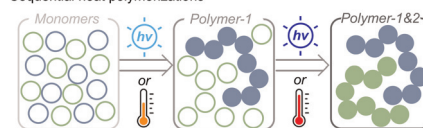
## MINIREVIEW

3954

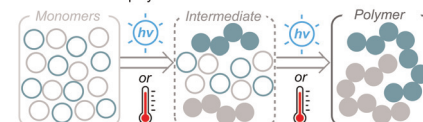
### Controlled orthogonal reactions in neat polymerizations

Caleb J. Reese, Grant M. Musgrave and Chen Wang\*

#### Sequential neat polymerizations



#### Simultaneous neat polymerizations



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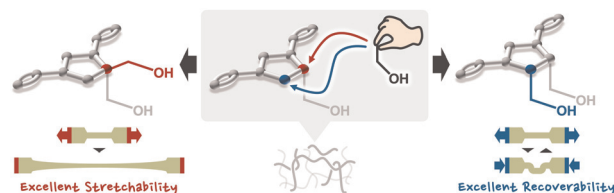
**SAVE  
10%**

## PAPERS

3967

### A minor difference in the hydrogen-bonding group structure has a major impact on the mechanical properties of polymers

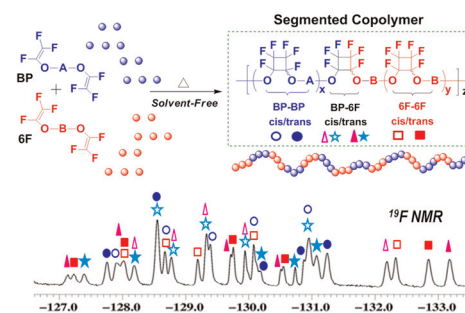
Shogo Ishizaka, Shintaro Nakagawa and Naoko Yoshie\*



3977

### One-pot single-step copolymerization of aromatic trifluorovinyl ethers toward perfluorocyclobutyl (PFCB) segmented copolymers

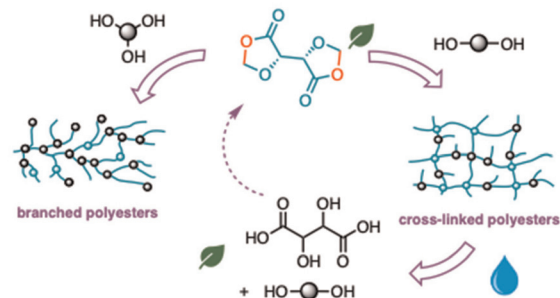
Jiyoung Park, Tugba G. Kucukkal, Jung-Min Oh, Steven J. Stuart, Stephen E. Creager, Gustavo Muñoz and Dennis W. Smith Jr.\*



3983

### Degradable branched and cross-linked polyesters from a bis(1,3-dioxolan-4-one) core

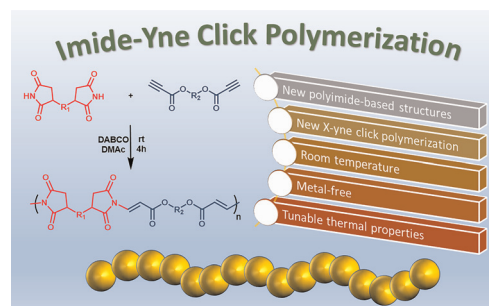
Orla Buensoz, Christina A. R. Picken, Paul Price, Christopher Fidge and Michael P. Shaver\*



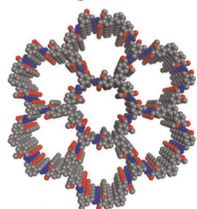
3991

### Imide-yne click polymerization: a new and versatile tool for the toolbox of X-yne click polymerization

Oguzhan Aslanturk, Gokhan Sagdic, Emrah Cakmakci, Hakan Durmaz\* and Ufuk Saim Gunay\*



4005

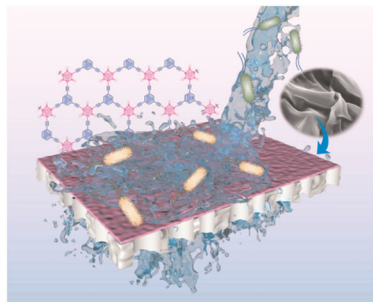
**Emissive hydrazone COF**

High sensitivity and selectivity  
for hydrazine sensing

**Emissive covalent organic frameworks with abundant interaction sites for hydrazine sensing**

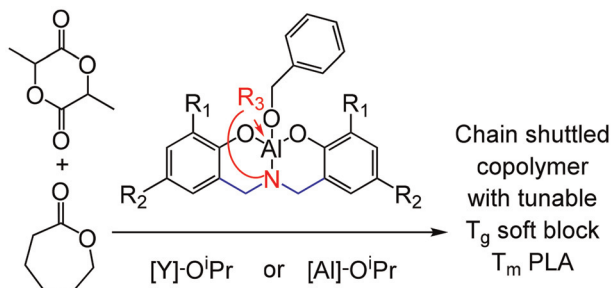
Yuwei Zhang, Ce Xing, Zhibin Tian, Wanyi Zhao, Yongfeng Zhi,\* Lina Zhao\* and He Li\*

4011

**Preparation and antibacterial performance of a conjugated microporous polymer nanosheet-based membrane**

Hanxue Sun,\* Hongyu Zhang, Rui Jiao, Fei Wang, Jiyan Li, Zhaoqi Zhu and An Li\*

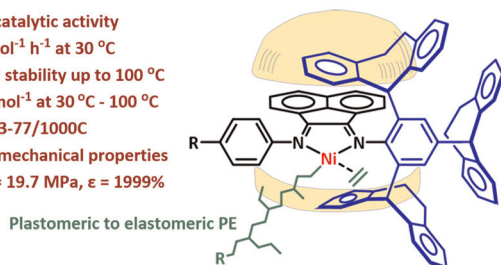
4020

**Tuning the thermal properties of L-lactide/ $\epsilon$ -caprolactone chain-shuttled copolymers via catalyst selection**

Xavier Mosca, Lucas Perchery, Marc Bria, Julien De Winter, Gregory Stoclet, Till Bousquet, Lydie Pelinski, Fanny Bonnet\* and Philippe Zinck\*

4029

Exceptional catalytic activity  
 $3.2 \times 10^7 \text{ g mol}^{-1} \text{ h}^{-1}$  at 30 °C  
High thermal stability up to 100 °C  
 $M_w = 10^5 \text{ g mol}^{-1}$  at 30 °C - 100 °C  
Branches = 33-77/1000C  
Remarkable mechanical properties  
SR = 66%,  $\sigma = 19.7 \text{ MPa}$ ,  $\epsilon = 1999\%$

**Benzosuberyl installed "sandwich" type unsymmetrical  $\alpha$ -diimine nickel precatalysts for synthesizing plastomeric to elastomeric polyethylene**

Aibo Zhou, Rongyan Yuan, Qaiser Mahmood,\* Shifang Yuan,\* Yizhou Wang, Zexu Hu, Song Zou, Tongling Liang and Wen-Hua Sun\*

