

# Polymer Chemistry

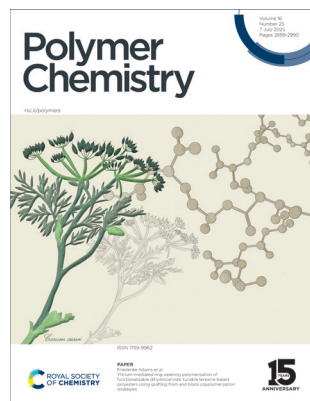
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## IN THIS ISSUE

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### Cover

See Friederike Adams *et al.*, pp. 2910–2922.

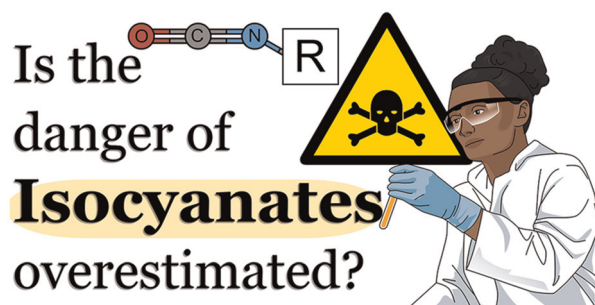
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## EDITORIAL

2905

### Lab safety alert: a real case of isocyanate exposure

Akshaya Maria Prasad, Gabriel Perli, Marta Ximenis, Ainara Tejero, Agurtzane Mugica, Lucas Polo Fonseca, Ainara Sangroniz, Fernando Vidal and Haritz Sardon\*

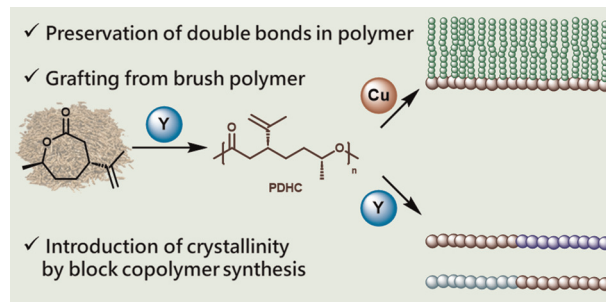


## PAPERS

2910

### Yttrium-mediated ring-opening polymerization of functionalizable dihydrocarvide: tunable terpene-based polyesters using grafting from and block copolymerization strategies

Lea-Sophie Hornberger, Julian Fischer, Alexandra Friedly, Ingo Hartenbach, Thomas Sottmann and Friederike Adams\*



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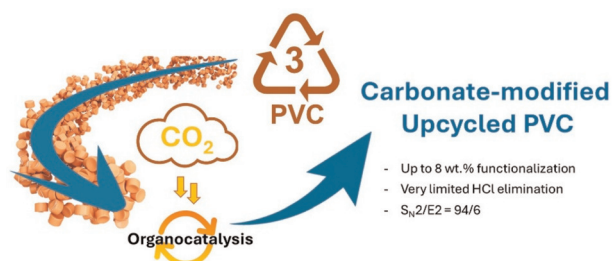


## PAPERS

2923

**CO<sub>2</sub>-binding alcohols as potential candidates for poly(vinyl chloride) upcycling**

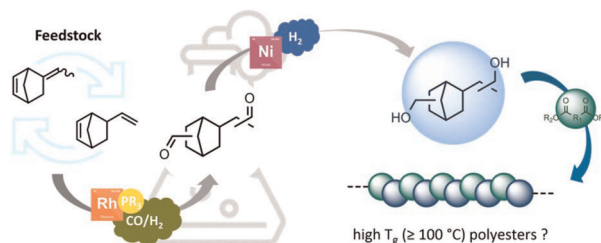
Juliette Delcorps, Emna Ben Ayed and Olivier Coulembier\*



2933

**5-Ethylidene-2-norbornene (ENB) and 5-vinyl-2-norbornene (VNB) based alicyclic polyols for the synthesis of polyesters**

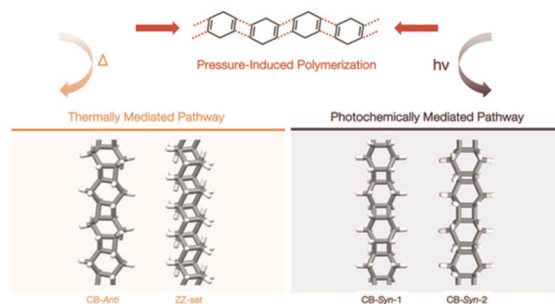
Brigita Bratić, Peter Altenbuchner, Thomas Heuser and Bernhard Rieger\*



2943

**Cyclobutane-linked nanothreads through thermal and photochemically mediated polymerization of cyclohexadiene**

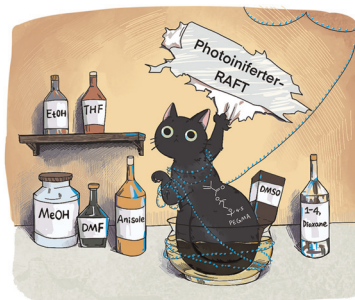
Morgan Murphy, Bohan Xu, Katie E. Rank, Sikai Wu, Steven Huss, John V. Badding, Steven A. Lopez, Vincent H. Crespi and Elizabeth Elacqua\*



2952

**Solvent and temperature effects in the photoiniferter RAFT polymerisation of PEG methacrylate**

Roujia Chang, Bryn D. Monnery\* and Inge S. Zuhorn\*



The diagram illustrates the 3D printing process for a photocurable resin. It starts with a 'Photo-curable resin' containing 'BAPO + unsaturated monomers'. This resin is printed by '3D printing' onto a substrate. The printed structure is then 'functionalized' under UV light ( $h\nu$ ) to form a 'crosslinked film' with 'NAC' groups attached to the surface. The diagram shows the chemical structure of the resin and the resulting crosslinked film.

Laura Oliveira Rebouças, Isabela Lima Autran Dourado,  
Giovanna Delechiave, Denisse Esther  
Mallaupoma Camarena, Sandra Van Vlierberghe and  
Luiz Henrique Catalani\*

**Bio-Based Raw Materials**

**Benzoxazine Resins**

**High Performance Polybenzoxazines**

**Low-Curing Temperature**

**High Thermal Stability**

**Heat Flow (Endo/Exo)**

**Temperature [°C]**

**Weight Loss (%)**

**Temperature [°C]**

**Endo**

**Exo**

**178°C**

**230°C**

**291.2%**

**18.8%**

**48.9%**

**291°C**

**322°C**

**381°C**

**polybenzoxazine**

**polybenzoxazine**

**polybenzoxazine**

**Endo**

**Exo**

## Lin Xie and Kan Zhang\*