

# Polymer Chemistry

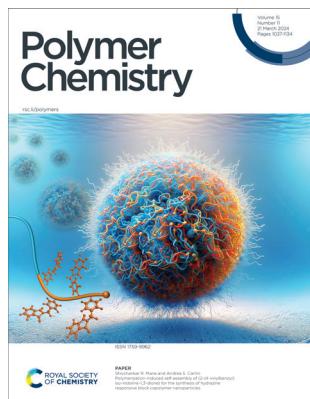
The home for the most innovative and exciting polymer chemistry, with an emphasis on polymer synthesis and applications thereof

[rsc.li/polymers](https://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 15(11) 1037–1134 (2024)



### Cover

See Shivshankar R. Mane and Andrea S. Carlini, pp. 1043–1051.

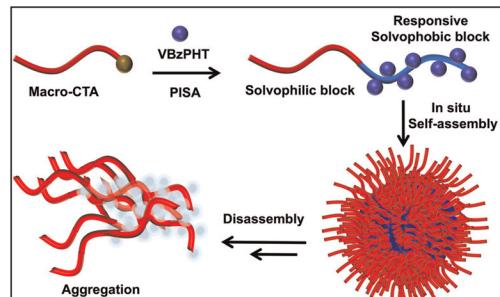
Image reproduced by permission of Shivshankar R. Mane and Andrea S. Carlini from *Polym. Chem.*, 2024, **15**, 1043. Image credit: Lucas Ruggeri and Andrea S. Carlini.

## PAPERS

1043

### Polymerization-induced self-assembly of (2-(4-vinylbenzyl)iso-indoline-1,3-dione) for the synthesis of hydrazine responsive block copolymer nanoparticles

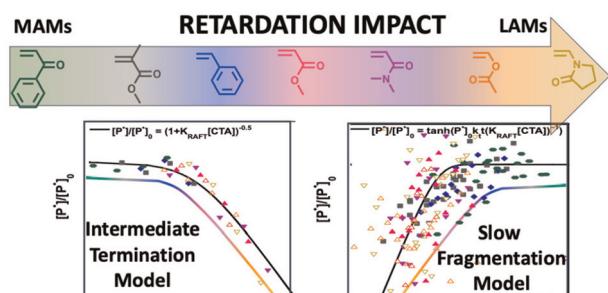
Shivshankar R. Mane\* and Andrea S. Carlini\*



1052

### Rate retardation trends in RAFT – an emerging monomer classification tool?

Tochukwu Nwoko, Khoi Nguyen, Nirob K. Saha, Christopher Barner-Kowollik and Dominik Konkolewicz\*



# Industrial Chemistry & Materials



Focus on industrial chemistry  
Advance material innovations  
Highlight interdisciplinary feature

Innovative.  
Interdisciplinary.  
Problem solving

APCs currently waived

Learn more about ICM  
Submit your high-quality article

[@IndChemMater](#)

[@IndChemMater](#)

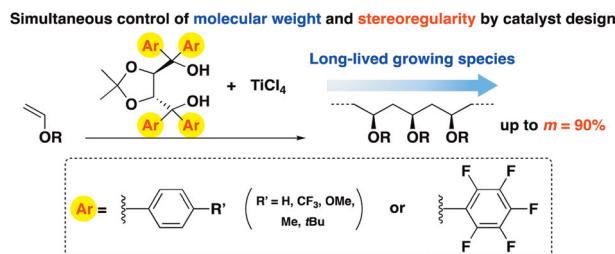
[rsc.li/icm](http://rsc.li/icm)

## PAPERS

1062

**Dual control of stereoregularity and molecular weight in cationic polymerization of vinyl ether by tunable TADDOLs/TiCl<sub>4</sub> initiating systems**

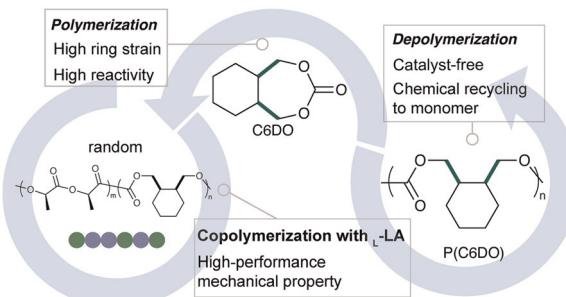
Hironobu Watanabe, Yuji Mishima, Arihiro Kanazawa and Sadahito Aoshima\*



1070

**cis-Fused cyclohexane promoted the chemical recycling of polycarbonate to monomer**

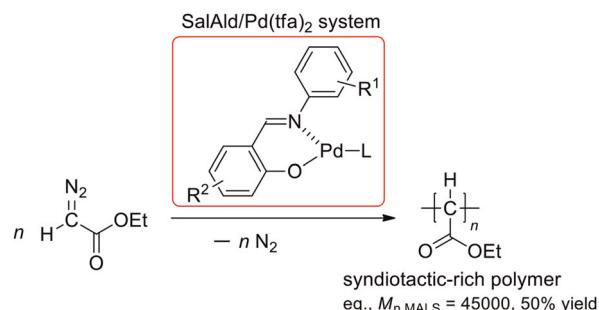
Si-Yi Shan, Wei Zhang, Qing Cao, Yun-Cong Ye, Zhongzheng Cai\* and Jian-Bo Zhu\*



1077

**A salicylaldiminate/Pd(trifluoroacetate)<sub>2</sub> [SalAld/Pd(tfa)<sub>2</sub>] initiating system for C1 polymerization of diazoacetate: generation of an active initiator from ordinary reagents with facile procedures**

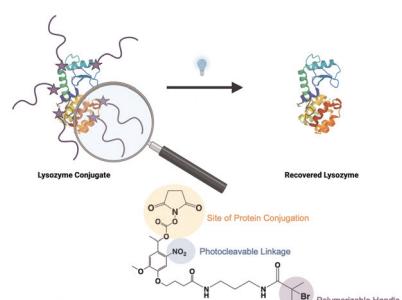
Hiroaki Shimamoto,\* Takaya Izumoto, Kazuki Yamashita, Tomomichi Itoh and Eiji Ihara\*



1085

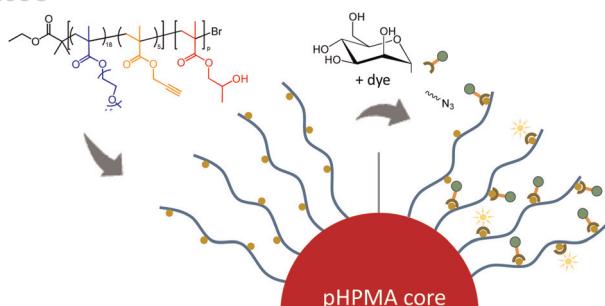
**Enzyme-polymer conjugates with photocleavable linkers for control over protein activity**

Mikayla F. Tan, Brock M. Hosier, Neil L. Forsythe and Heather D. Maynard\*



## PAPERS

1093

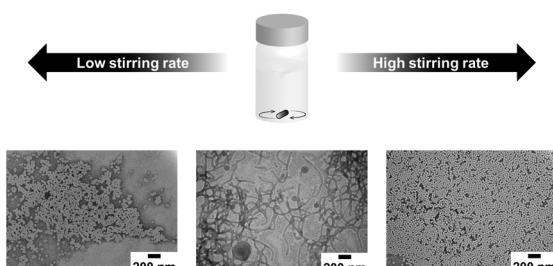


**Surface mannosylation of dispersion polymerisation derived nanoparticles by copper mediated click chemistry**

Daniela V. Tomasino, Ashfaq Ahmad, Tauseef Ahmad, Golestan Salimbeigi, Jennifer Dowling, Mark Lemoine, Ruth M. Ferrando, Alan Hibbitts, Ruairí P. Brannigan, Mathew I. Gibson, Luigi Lay\* and Andreas Heise\*

1102

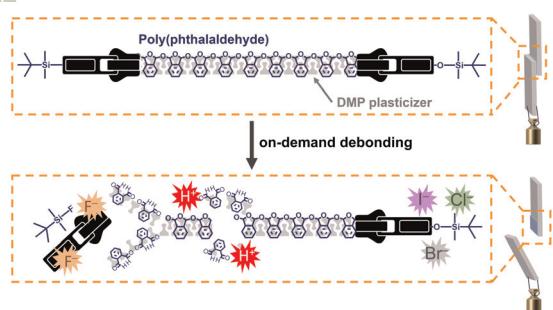
**Effects of stirring rate on PISA-derived nanoparticle morphology**



**Effects of stirring rate on morphology of aqueous RAFT emulsion PISA-derived block copolymer nanoparticles**

Hyun Jin Kim, Fumi Ishizuka, Jiang Li, Rhiannon P. Kuchel, Shunsuke Chatani, Hiroshi Niino and Per B. Zetterlund\*

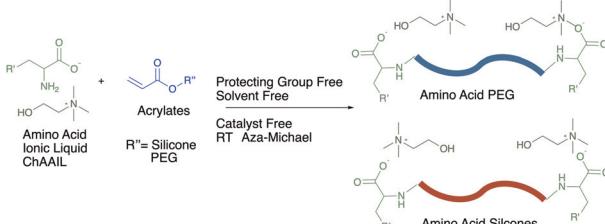
1112



**Functional design of stimuli-responsive poly(phthalaldehyde)-based adhesives: depolymerization kinetics and mechanical strength management through plasticizer addition**

Patrick Damacet, Hana J. Yarbrough, Nicholas D. Bleloch, Hyuk-Jun Noh and Katherine A. Mirica\*

1123



**Protecting group-free introduction of amino acids to polymers through the aza-Michael reaction**

Guanhua Lu and Michael A. Brook\*

