

# Soft Matter

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## IN THIS ISSUE

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### Cover

See Olga Kuksenok et al., pp. 1624–1638.  
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### Inside cover

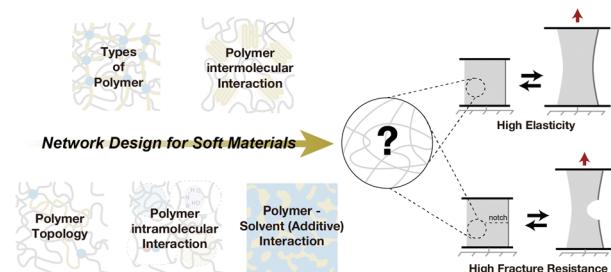
See Bart Jan Ravoo et al., pp. 1639–1645.  
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Cover image designed by Ashutosh Kanjoliya and Nina Knubel.

## REVIEW

1603

### Network design for soft materials: addressing elasticity and fracture resistance challenges

Yong Eun Cho, Sihwan Lee, Sang Jun Ma and Jeong-Yun Sun\*

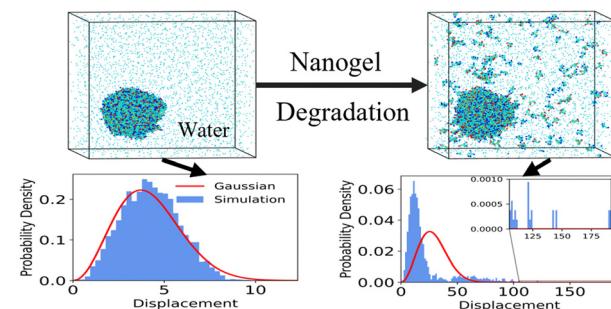


## PAPERS

1624

### Characterizing dynamic heterogeneities during nanogel degradation

Zafrin Ferdous Mira, Vaibhav Palkar and Olga Kuksenok\*



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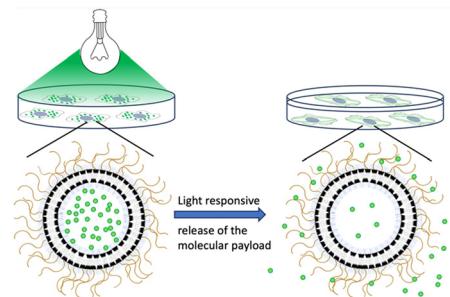


## PAPERS

1639

**Nanocarriers for intracellular delivery of molecular payloads triggered by visible light**

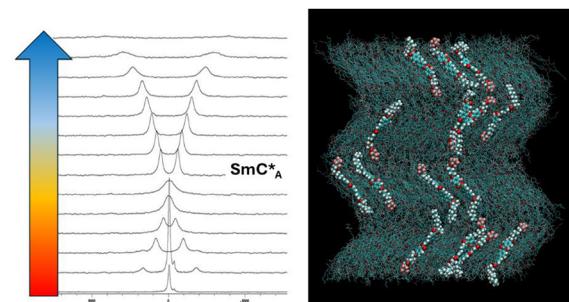
Ashutosh Kanojiya, Julian Terglane, Volker Gerke and Bart Jan Ravoo\*



1646

**Chemical and physical properties of orthoconic liquid crystals:  $^2\text{H}$  NMR spectroscopy and molecular dynamics simulations**

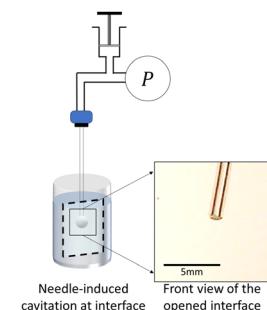
Anna Drzewicz, Martina Rossi, Mario Cifelli, Giacomo Saielli, Marzena Tykarska and Valentina Domenici\*



1662

**Measuring interfacial strength of ultra-soft materials with needle-induced cavitation**

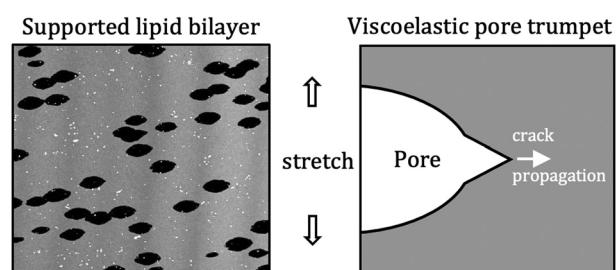
Hongbo Fu and Alfred J. Crosby\*



1669

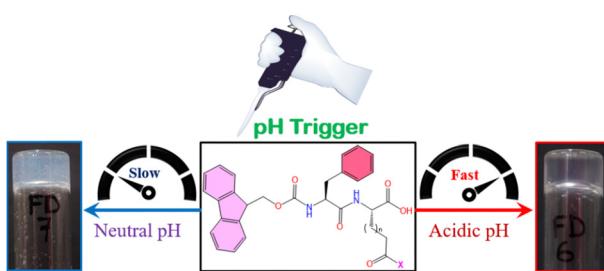
**Lipid bilayer fracture under uniaxial stretch**

Rachel Joanne Goodband and Margarita Staykova\*



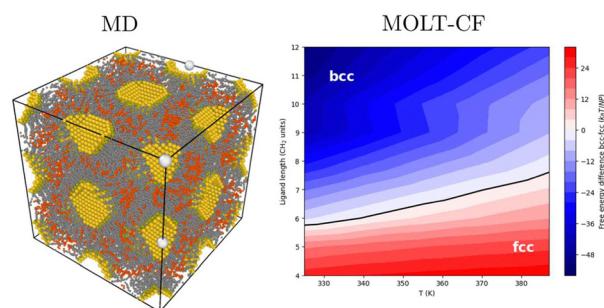
## PAPERS

1676


**Fmoc-conjugated dipeptide-based hydrogels and their pH-tunable behaviour**

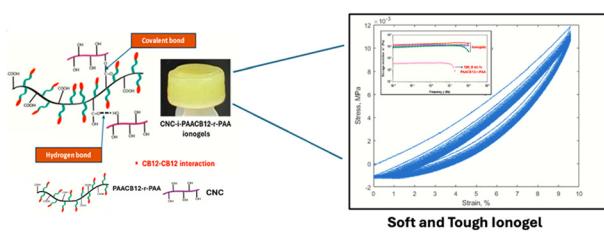
Soumen Kuila, Souvik Misra, Riya Saha, Laboni Ghosh, Pijush Singh, Anamika Ghosh, Kolimi Prashanth Reddy, Subhradip Pandit, Debabani Ganguly, Pallab Datta, Samik Bindu, Gouranga Nandi, Suman Samai and Jayanta Nanda\*

1686


**Temperature dependence of phase diagrams and dynamics in nanocrystal assembly by solvent evaporation**

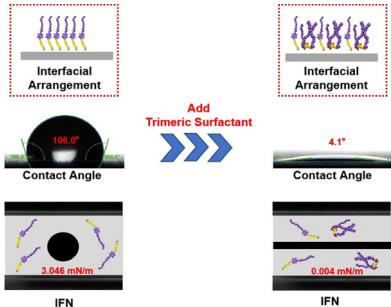
Alex Upah, Leandro Missoni, Mario Tagliazucchi\* and Alex Traverset\*

1699


**Soft and tough cellulose nanocrystals interlocked with polyacrylate-bearing cyanobiphenyl ionogels through a double network strategy**

Patrick K. Njenga, Francis K. Masese, Dennis M. Ndaya, M. Daniela Morales-Acosta, Nicholas Eddy and Rajeswari M. Kasi\*

1710


**Enhancing surface/interface activity and wettability via trimeric surfactant-containing mixtures**

Chao Zhang, Jianlin Jiang, Linbi Zhou, Lili Zhou,\* Bing Qin\* and Fulin Qiao\*

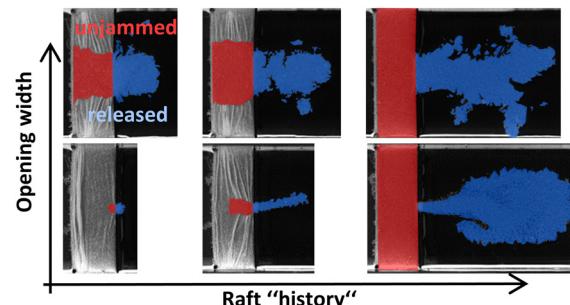


## PAPERS

1718

**Unjamming of particle-laden interfaces: effects of geometry and history**

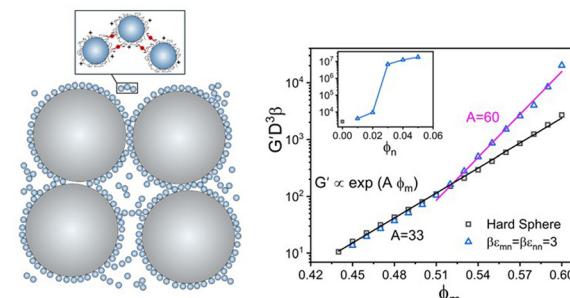
Carole Planchette\* and Gregor Plohl



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**Theoretical study of the impact of dilute nanoparticle additives on the shear elasticity of dense colloidal suspensions**

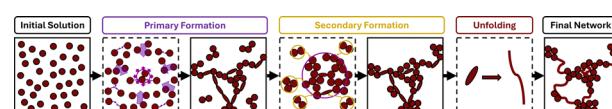
Subhasish Chaki, Benito Román-Manso, Larissa Senatus, Jennifer A. Lewis and Kenneth S. Schweizer\*



1748

**Capturing the impact of protein unfolding on the dynamic assembly of protein networks**

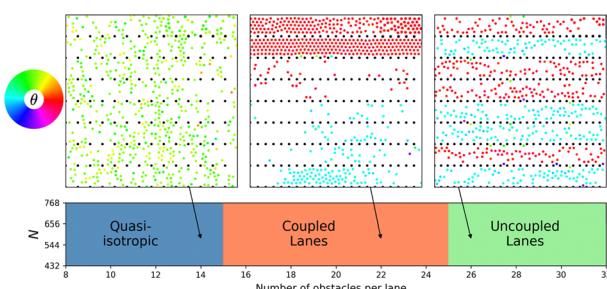
Matt D. G. Hughes, Sophie Cussons, Ahmad Borumand, Arwen I. I. Tyler, David J. Brockwell and Lorna Dougan\*



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**Polarization and dynamic phases of aligning active matter in periodic obstacle arrays**

Daniel Canavello, C. Reichhardt, C. J. O. Reichhardt and Clécio C. de Souza Silva\*



## CORRECTIONS

1768

**Correction: *Anoplophora graafi* longhorn beetle coloration is due to disordered diamond-like packed spheres**

Kenza Djeghdi, Cédric Schumacher, Viola Bauernfeind, Ilja Gunkel, Bodo D. Wilts\* and Ullrich Steiner

1769

**Correction: Topological defects induced by air inclusions in ferroelectric nematic liquid crystals with ionic doping**

Zhongjie Ma, Shengzhu Yi, Miao Jiang, Mingjun Huang, Satoshi Aya, Rui Zhang and Qi-Huo Wei\*