

# Soft Matter

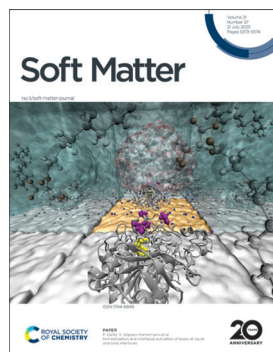
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## IN THIS ISSUE

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### Cover

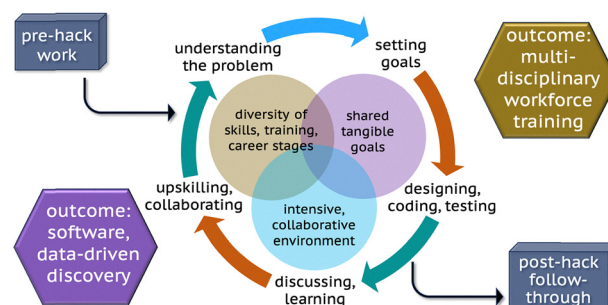
See P. Giefer,  
S. Köppen-Hannemann  
*et al.*, pp. 5398–5412.  
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Patrick Giefer and Susan  
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from *Soft Matter*,  
2025, 21, 5398.

## TUTORIAL REVIEW

5381

### Hacktive matter: data-driven discovery through hackathon-based cross-disciplinary coding

Megan T. Valentine\* and Rae M. Robertson-Anderson\*

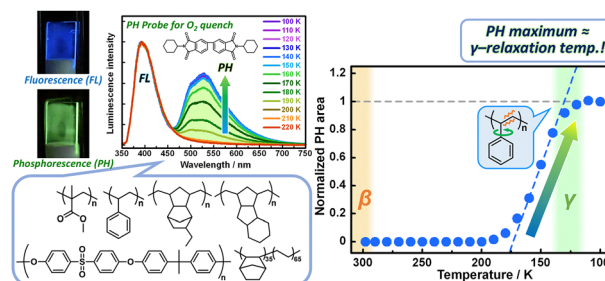


## COMMUNICATION

5393

### Precise detection of local relaxation of amorphous polymers at low temperatures via O<sub>2</sub> diffusion probed by a dual-luminescent imide compound

Rika Watanabe, Marina Doi, Haonan Liu,  
Masatoshi Tokita and Shinji Ando\*



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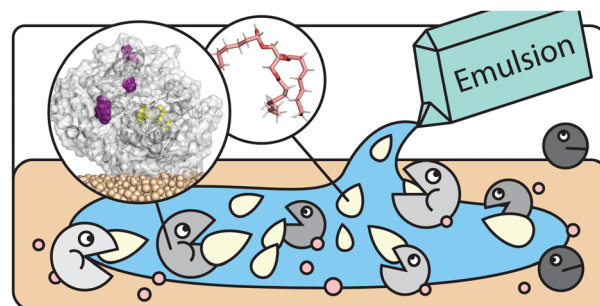


## PAPERS

5398

## Immobilization and interfacial activation of lipase at liquid and solid interfaces

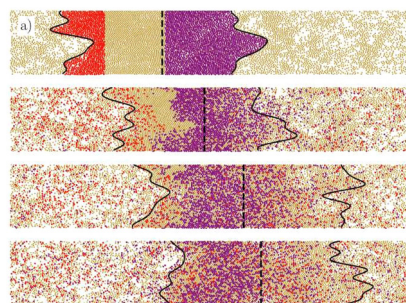
P. Giefer,\* U. Fritsching, L. Colombi Ciacchi and S. Köppen-Hannemann\*



5413

## Dynamics and rupture of doped motility induced phase separation

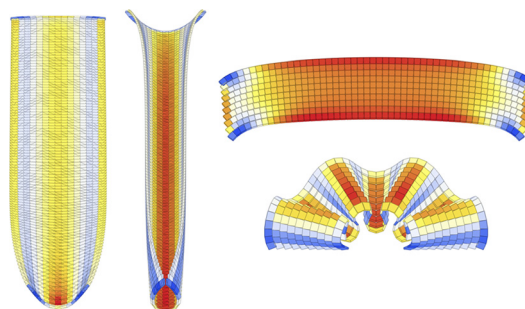
Rodrigo Fernández-Quevedo García,\* Enrique Chacón, Pedro Tarazona and Chantal Valeriani\*



5423

## Self-limiting states of polar misfits: frustrated assembly of warped-jigsaw particles

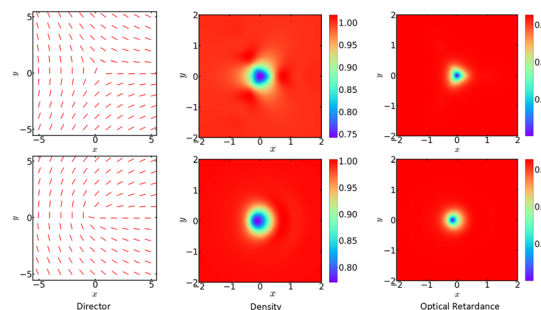
Michael Wang and Gregory M. Grason



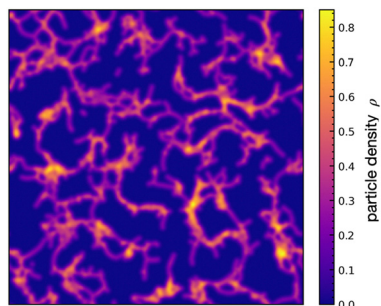
5447

## Self consistent field theory of isotropic–nematic interfaces and disclinations in a semiflexible molecule nematic

Longyu Qing\* and Jorge Viñals



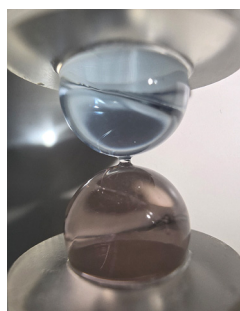
5459



### Fluctuation induced network patterns in active matter with spatially correlated noise

Sebastian Fehlinger, Kai Cui, Arooj Sajjad, Heinz Koepl and Benno Liebchen\*

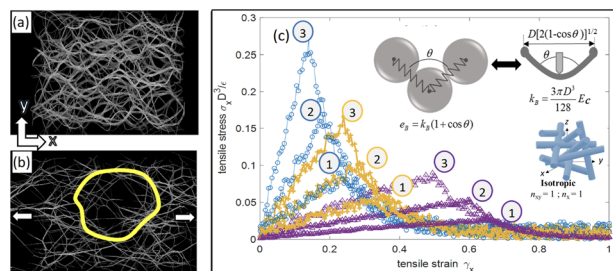
5468



### Capillary-induced adhesive contact dynamics determines dissipation and flow structure in wetted hydrogel packings

Zohreh Farmani, Jing Wang, Ralf Stannarius and Joshua A. Dijksman\*

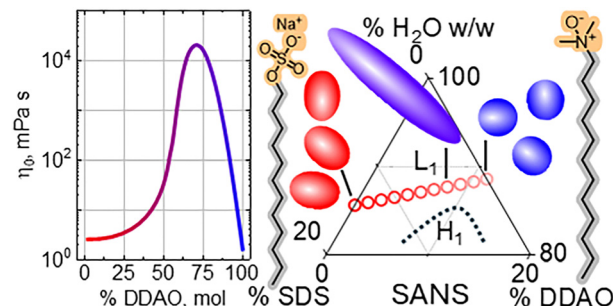
5480



### Micromechanical modelling of cellulose hydrogel composites based on coarse-grained molecular dynamics

Mauricio R. Bonilla, Sridhar K. Kannam, Matthew T. Downton, Monika S. Doblin, Antony Bacic, Michael J. Gidley and Jason R. Stokes\*

5494



### SANS and rheology of elongated SDS-DDAO mixed micelles near the phase boundary

Luis M. G. Torquato, Gunjan Tyagi, Zain Ahmad, Liva Donina, Najet Mahmoudi, Rebecca Fong, Paul F. Luckham and João T. Cabral\*



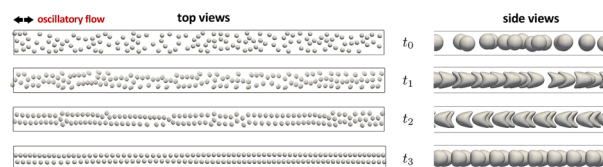


## PAPERS

5503

# Oscillatory flow improves hydrodynamic ordering of soft suspensions in rectangular channels

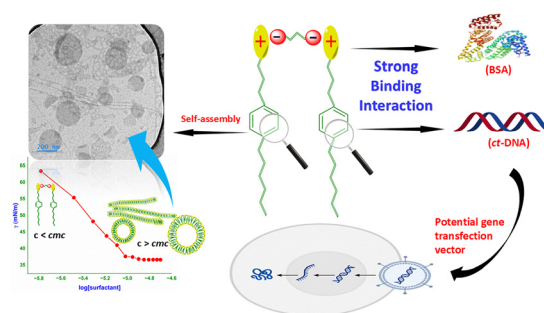
Paul C. Millett



5515

# Unravelling the self-assembly of a novel cationic pseudo-gemini surfactant and its monomeric counterpart: interactions with DNA and BSA in aqueous medium at neutral pH

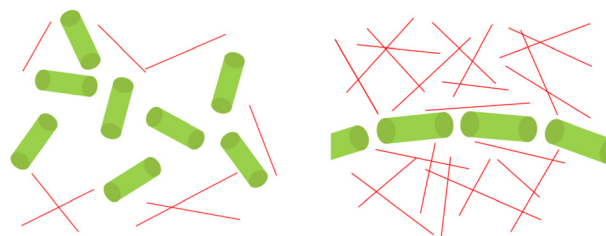
Homen Dahal, Sachin Soren, Shashi Kumar and Joykrishna Dey\*



5529

# Brownian dynamics simulation of the diffusion of rod-like nanoparticles in polymeric gels

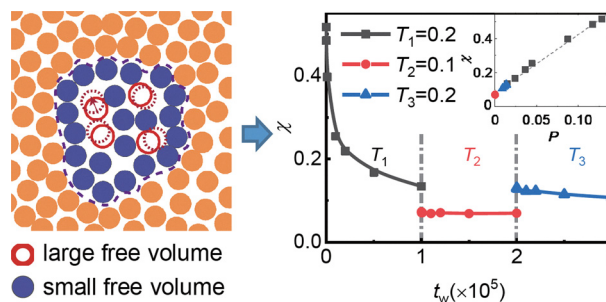
Mohammad-Reza Rokhforouz, Don D. Sin, Sarah Hedtrich and James J. Feng\*



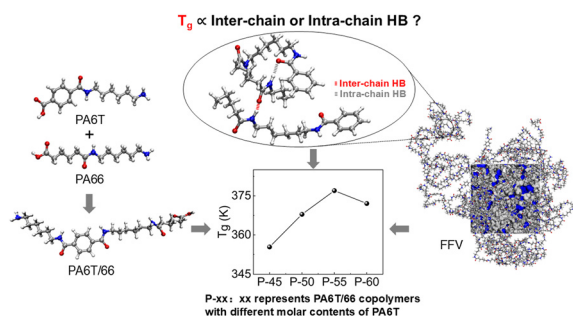
5542

# Unraveling molecular mechanisms of aging dynamics in the Kob–Andersen model: the role of free volume

Yifan Yang, Yuyuan Lu,\* Yaozhang Yang, Xia Wang and Lijia An



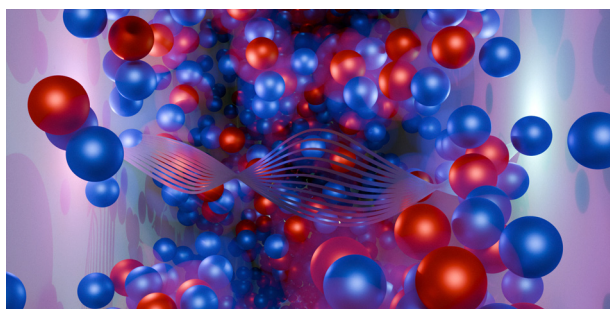
5553



## Investigating glass transition in a PA6T/66 copolymer through molecular dynamics simulations

Lele Wei, Liping Zhu, Jin Wen\* and Meifang Zhu

5562



## Solvent-induced ion clusters generate long-ranged double-layer forces at high ionic strengths

David Ribar, Clifford E. Woodward and Jan Forsman\*

