

Soft Matter

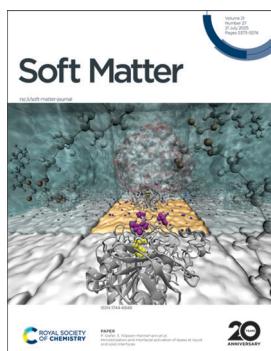
Where physics meets chemistry meets biology for fundamental soft matter research

rsc.li/soft-matter-journal

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 1744-6848 CODEN SMOABF 21(27) 5373–5574 (2025)



Cover

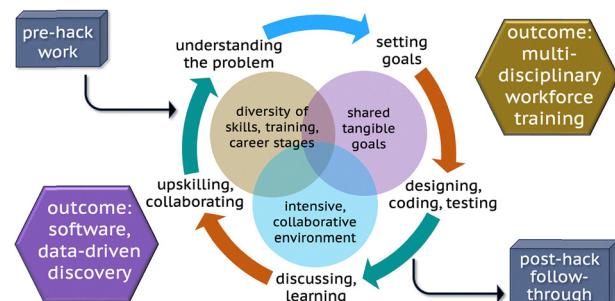
See P. Giefer,
S. Köppen-Hannemann
et al., pp. 5398–5412.
Image reproduced
by permission of
Patrick Giefer and Susan
Köppen-Hannemann
from *Soft Matter*,
2025, 21, 5398.

TUTORIAL REVIEW

5381

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

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

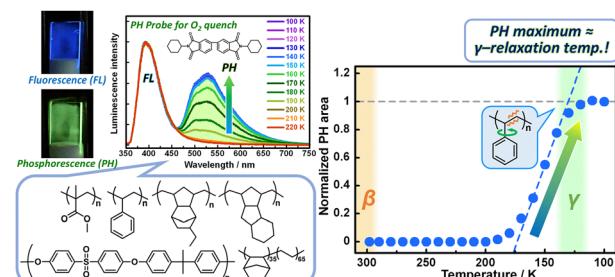


COMMUNICATION

5393

Precise detection of local relaxation of amorphous polymers at low temperatures via O₂ diffusion probed by a dual-luminescent imide compound

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



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members get at least 10% off

Visit rsc.li/cpd-training

**SAVE
10%**

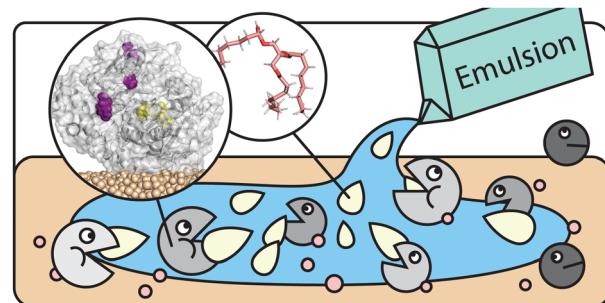


PAPERS

5398

Immobilization and interfacial activation of lipase at liquid and solid interfaces

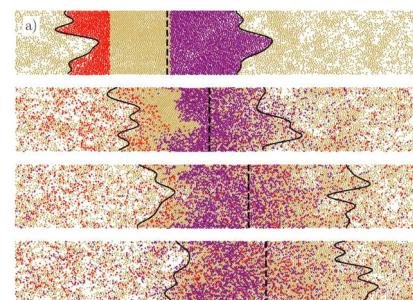
P. Giefer,* U. Fritsching, L. Colombi Ciacchi and S. Köppen-Hannemann*



5413

Dynamics and rupture of doped motility induced phase separation

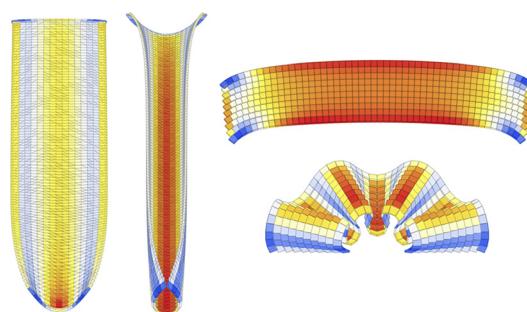
Rodrigo Fernández-Quevedo García,* Enrique Chacón, Pedro Tarazona and Chantal Valeriani*



5423

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

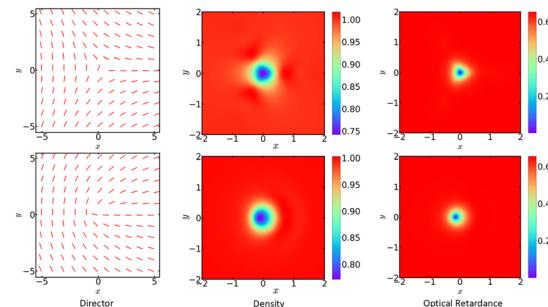
Michael Wang and Gregory M. Grason



5447

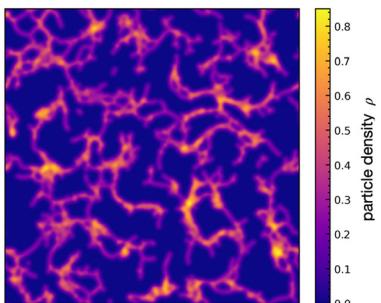
Self consistent field theory of isotropic–nematic interfaces and disclinations in a semiflexible molecule nematic

Longyu Qing* and Jorge Viñals



PAPERS

5459



Fluctuation induced network patterns in active matter with spatially correlated noise

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

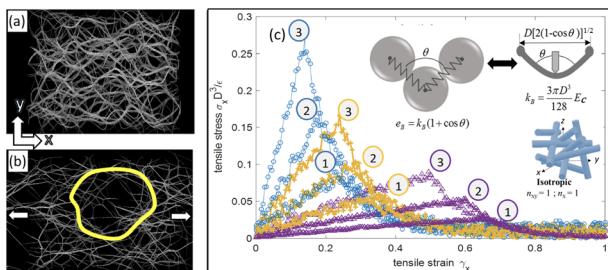
5468



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

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

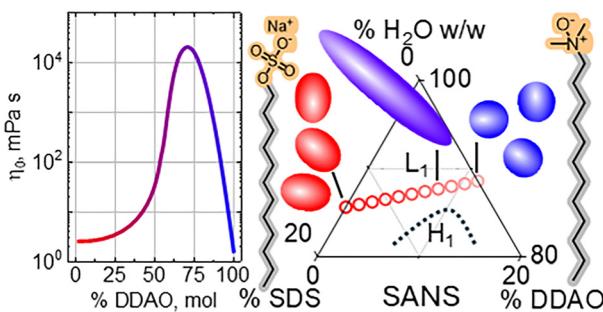
5480



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*

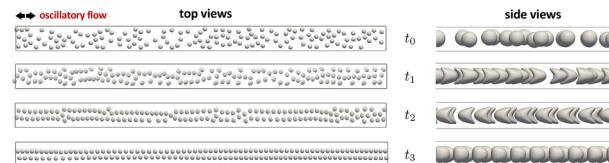


PAPERS

5503

Oscillatory flow improves hydrodynamic ordering of soft suspensions in rectangular channels

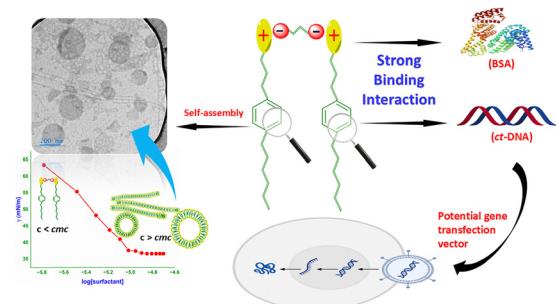
Paul C. Millett



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

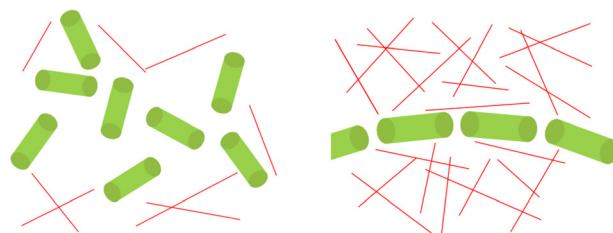
Homen Dahal, Sachin Soren, Shashi Kumar and Joykrishna Dey*



5529

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

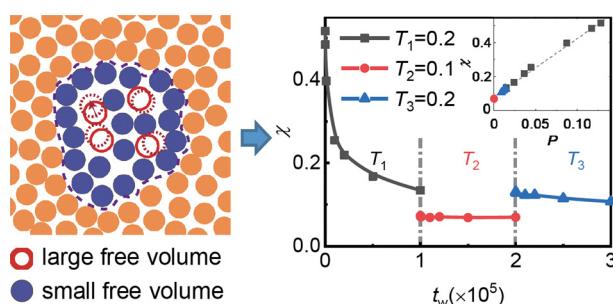
Mohammad-Reza Rokhforouz, Don D. Sin, Sarah Hedtrich and James J. Feng*



5542

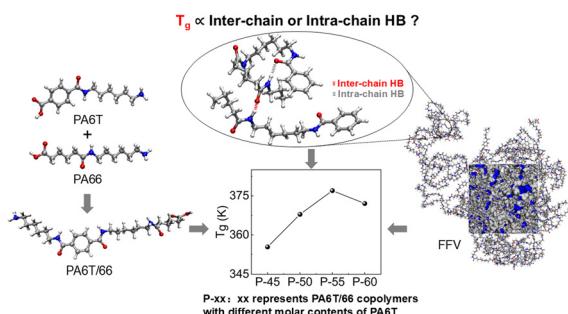
Unraveling molecular mechanisms of aging dynamics in the Kob-Andersen model: the role of free volume

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



PAPERS

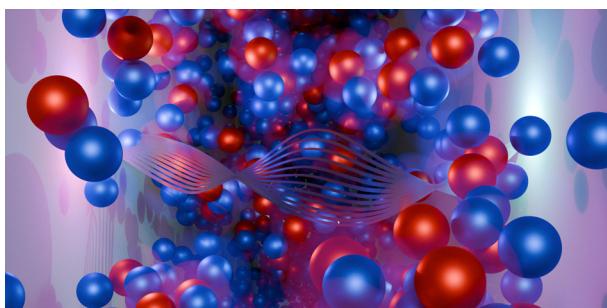
5553



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*

