

Soft Matter

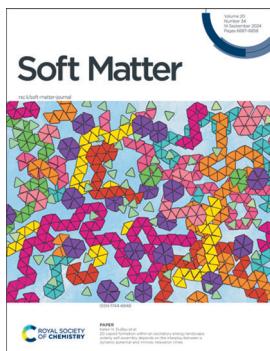
Where physics meets chemistry meets biology for fundamental soft matter research

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.

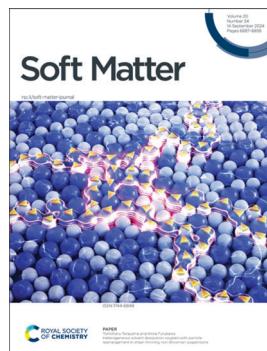
IN THIS ISSUE

ISSN 1744-6848 CODEN SMOABF 20(34) 6687–6858 (2024)



Cover

See Kateri H. DuBay *et al.*,
pp. 6702–6713.
Image reproduced
by permission of
Jessica K. Niblo from
Soft Matter,
2024, 20, 6702.



Inside cover

See Tomoharu Terayama
and Akira Furukawa,
pp. 6714–6722.
Image reproduced
by permission of
Akira Furukawa from
Soft Matter,
2024, 20, 6714.

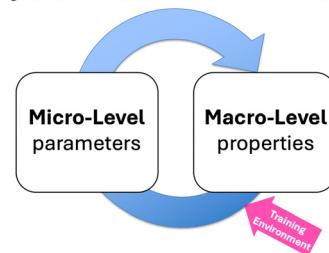
PERSPECTIVE

6695

Training physical matter to matter

Heinrich M. Jaeger,* Arvind Murugan and
Sidney R. Nagel

Training for Adaptive Functionality
by using external stimuli to evolve local interactions & structure

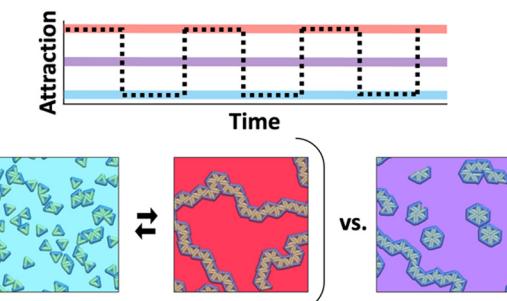


PAPERS

6702

2D capsid formation within an oscillatory energy landscape: orderly self-assembly depends on the interplay between a dynamic potential and intrinsic relaxation times

Jessica K. Niblo, Jacob R. Swartley, Zhongmin Zhang
and Kateri H. DuBay*



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%**

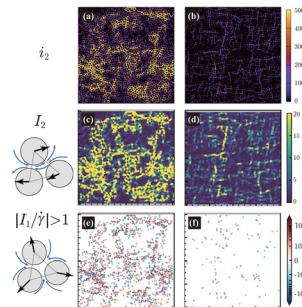


PAPERS

6714

Heterogeneous solvent dissipation coupled with particle rearrangement in shear-thinning non-Brownian suspensions

Tomoharu Terayama* and Akira Furukawa*

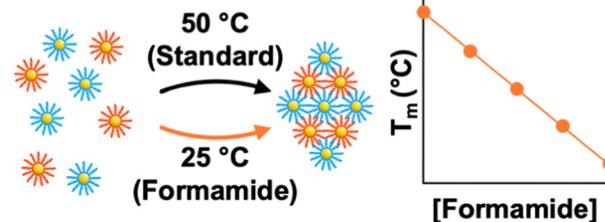


6723

Controlling the thermally-driven crystallization of DNA-coated nanoparticles with formamide

Theodore Hueckel, Seungyeon Woo and Robert J. Macfarlane*

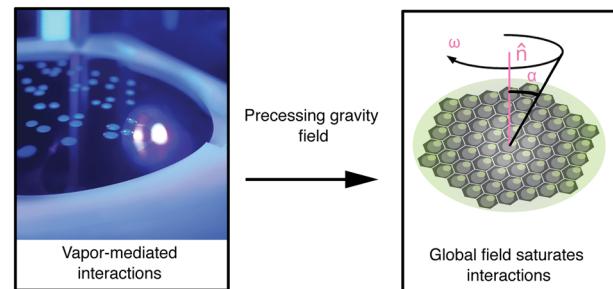
DNA-Nanoparticle Assembly



6730

Droplet tilings in precessive fields: hysteresis, elastic defects, and annealing

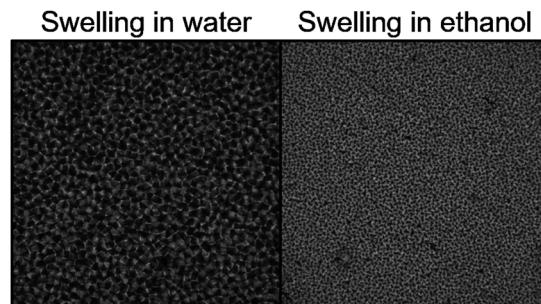
Anton Molina and Manu Prakash*



6742

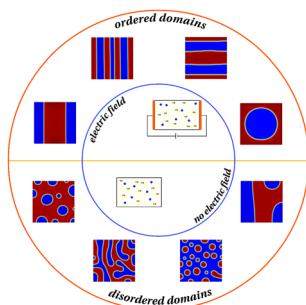
Unconstrained dynamic gel swelling generates transient surface deformations

Alyssa VanZanten, Shih-Yuan Chen, Michelle M. Driscoll and Caroline R. Szczepanski*



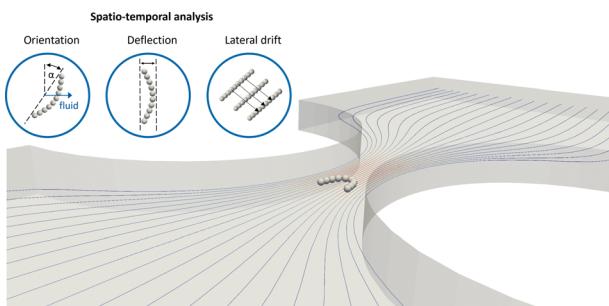
PAPERS

6754


Ordered patterns in electroactive polymer ionic liquid blends: effect of long range interactions

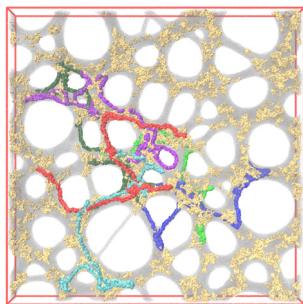
Ashima Choudhury and Pratyush Dayal*

6767


Transport and clogging dynamics of flexible rods in pore constrictions

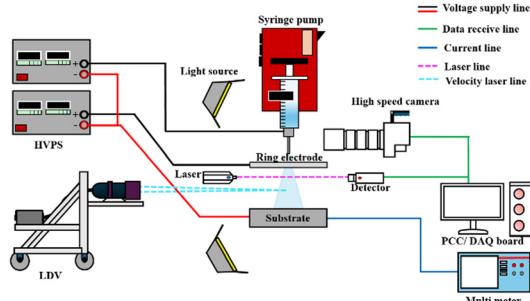
Berinike Bräsel, Matthias Geiger, John Linkhorst and Matthias Wessling*

6779


Stable polydisperse free-standing porous films made by mechanical deformation

Hsiao-Ping Hsu and Kurt Kremer*

6791


Effects of structural variation in electrospray systems on spray characteristics

Ji Yeop Kim, Sang ji Lee, Mun Hee Lee, Jun Yeop Kim and Jung Goo Hong*

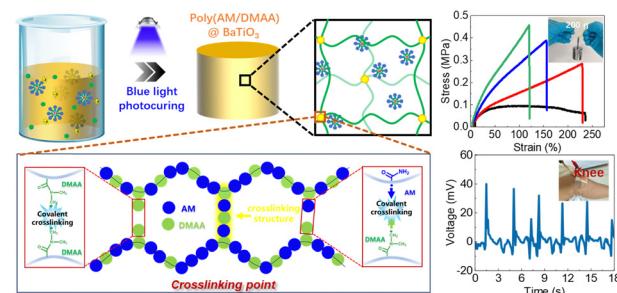


PAPERS

6800

A tough and piezoelectric poly(acrylamide/*N,N*-dimethylacrylamide) hydrogel-based flexible wearable sensor

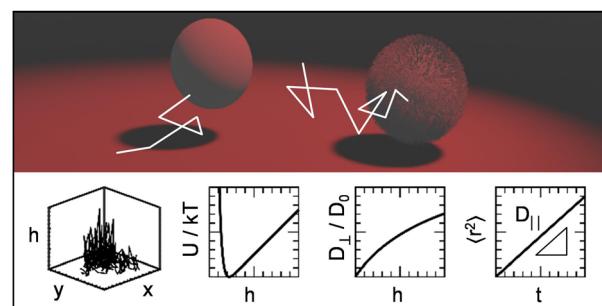
Mingyue Wu, Guohui Wang, Mihan Zhang, Jinchao Li, Chenglong Wang,* Guangdong Sun* and Jinhuan Zheng



6808

Direct measurements & simplified models of colloidal interactions & diffusion with adsorbed macromolecules

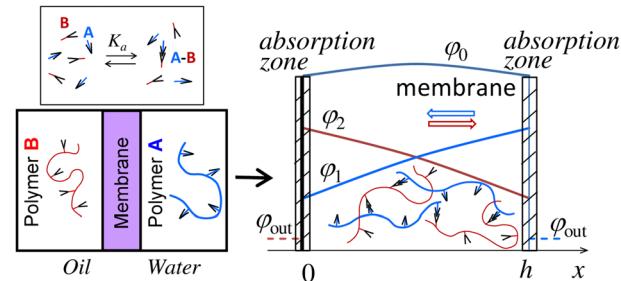
Mikael O. Ellingson and Michael A. Bevan*



6822

Growth of membranes formed by associating polymers at interfaces

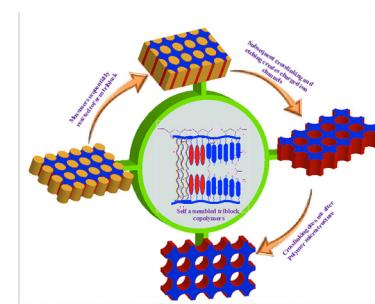
Elena N. Govorun,* Julien Dupré de Baubigny, Patrick Perrin, Mathilde Reysat, Nadège Pantoustier, Thomas Salez and Cécile Monteux*



6834

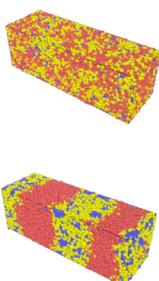
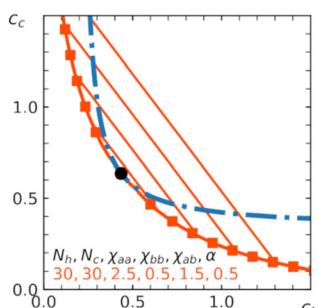
Ionic nanoporous membranes from self-assembled liquid crystalline brush-like imidazolium triblock copolymers

Iyomali Abeysekera, Reuben Bosire, Francis K. Masese, Dennis Ndaya* and Rajeswari M. Kasi*



PAPERS

6848

**Phase separation in soft repulsive polymer mixtures: foundation and implication for chromatin organization**

Naoki Iso, Yuki Norizoe and Takahiro Sakaue*