

Soft Matter

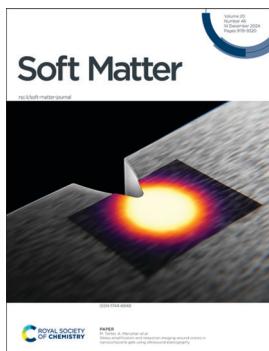
Where physics meets chemistry meets biology for fundamental soft matter research

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.

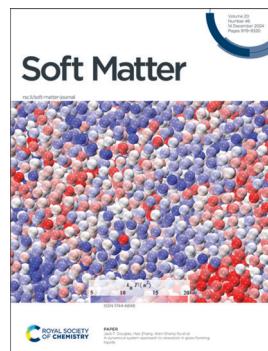
IN THIS ISSUE

ISSN 1744-6848 CODEN SMOABF 20(46) 9119–9320 (2024)



Cover

See M. Tanter,
A. Marcellan *et al.*,
pp. 9127–9139.
Image reproduced
by permission of
Alexandre Dizeux,
INSERM from
Soft Matter,
2024, 20, 9127.
Image credit: Alexandre
Dizeux, INSERM.



Inside cover

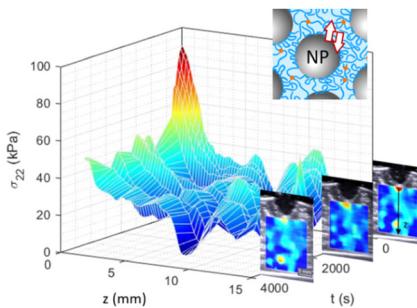
See Jack F. Douglas,
Hao Zhang,
Wen-Sheng Xu *et al.*,
pp. 9140–9160.
Image reproduced
by permission of
Wensheng Xu from
Soft Matter,
2024, 20, 9140.

PAPERS

9127

Stress amplification and relaxation imaging around cracks in nanocomposite gels using ultrasound elastography

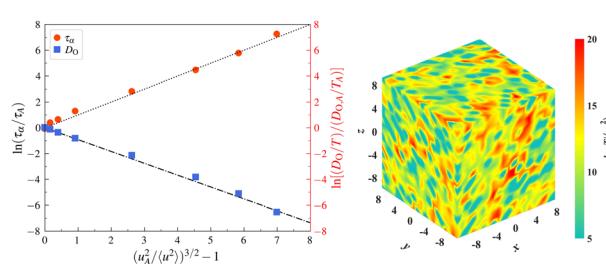
H. Le Blay, T. Deffieux, L. Laiarinandrasana, M. Tanter*
and A. Marcellan*



9140

A dynamical system approach to relaxation in glass-forming liquids

Jack F. Douglas,* Qi-Lu Yuan, Jiarui Zhang, Hao Zhang*
and Wen-Sheng Xu*





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%

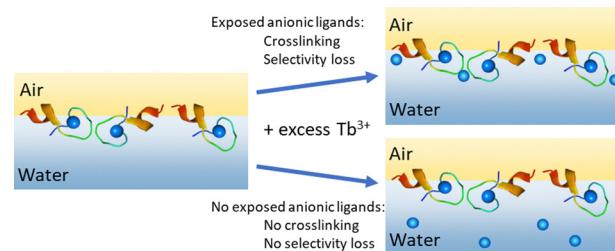


PAPERS

9161

Interfacial rheology of lanthanide binding peptide surfactants at the air–water interface

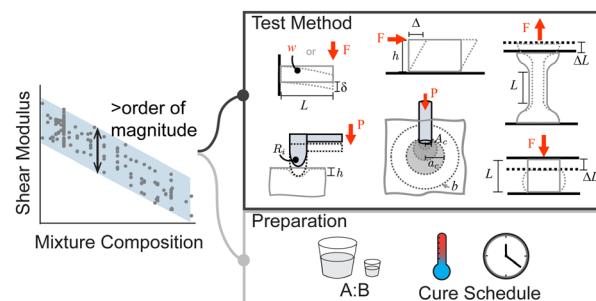
Stephen A. Crane, Felipe Jiménez-Ángeles, Yiming Wang, Luis E. Ortuno Macias, Jason G. Marmorstein, Jiayi Deng, Mehdi Molaei, E. James Petersson, Ravi Radhakrishnan, Cesar de la Fuente-Nunez, Monica Olvera de la Cruz, Raymond S. Tu, Charles Maldarelli, Ivan J. Dmochowski and Kathleen J. Stebe*



9174

Explaining the spread in measurement of PDMS elastic properties: influence of test method and curing protocol

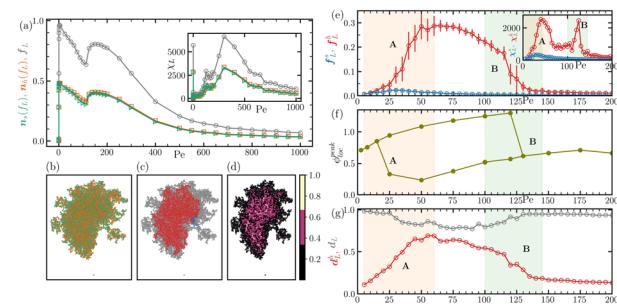
Hannah Varner and Tal Cohen*



9184

Percolation transitions in a binary mixture of active Brownian particles with different softness

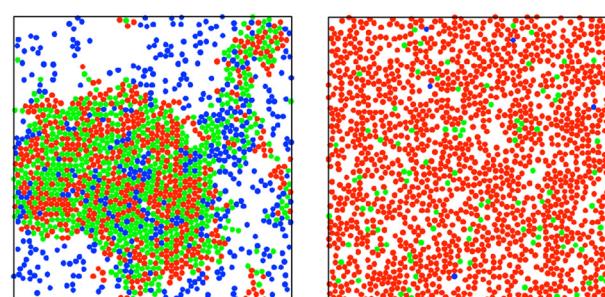
Monika Sanoria,* Raghunath Chelakkot* and Amitabha Nandi*



9193

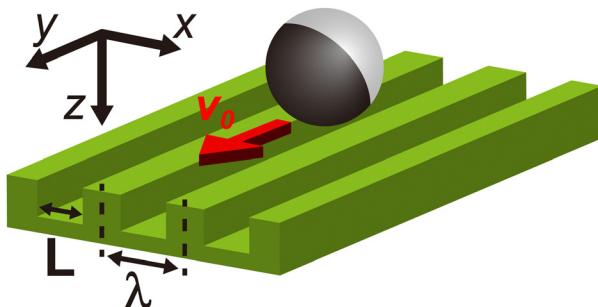
The influence of active agent motility on SIRS epidemiological dynamics

R. Kailasham and Aditya S. Khair*



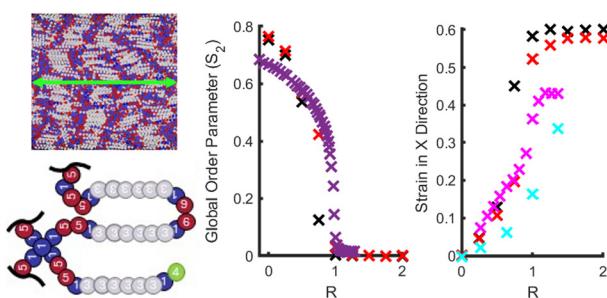
PAPERS

9208

**Enhanced gravitational trapping of bottom-heavy Janus particles over parallel microgrooves**

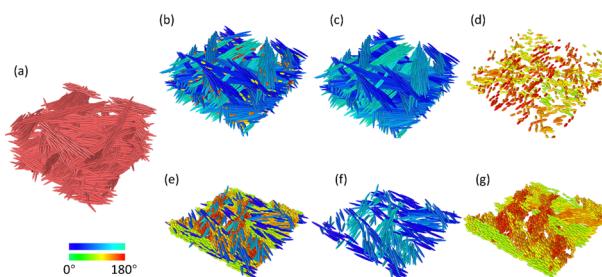
Yan Wen, Jiayu Liu, Wei Wang,* Pik-Yin Lai* and Penger Tong*

9219

**Modeling nematic phase main-chain liquid crystal elastomer synthesis, mechanics, and thermal actuation via coarse-grained molecular dynamics**

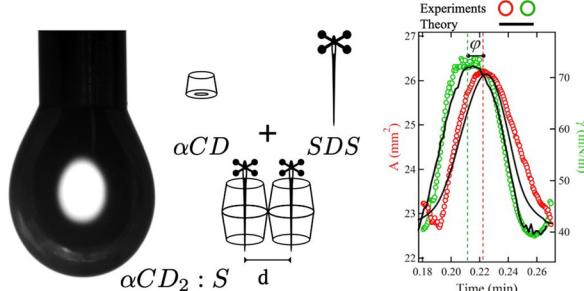
Nicolas Herard, Raja Annapoornan, Todd Henry, Martin Kröger, Shengqiang Cai, Nicholas Boehler* and Yelena Sliozberg*

9232

**Co-assembly of cellulose nanocrystals and gold nanorods: insights from molecular dynamics modelling**

Jiaxin Hou, William Sampson and Ahu Gümrah Dumanti*

9240

**Interfacial viscoelasticity in oscillating drops of cyclodextrin–surfactant aqueous solution: experiments and theory**

J. Roberto Romero-Arias,* Alberto S. Luviano,* Miguel Costas, Aurora Hernández-Machado and Rafael A. Barrio

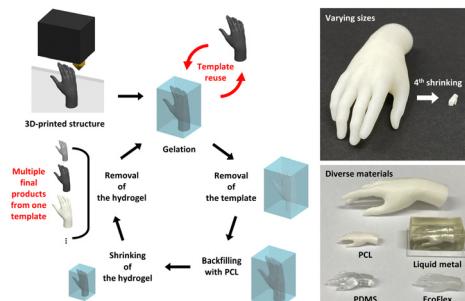


PAPERS

9249

Hydrogel-based 3D fabrication of multiple replicas with varying sizes and materials from a single template via iterative shrinking

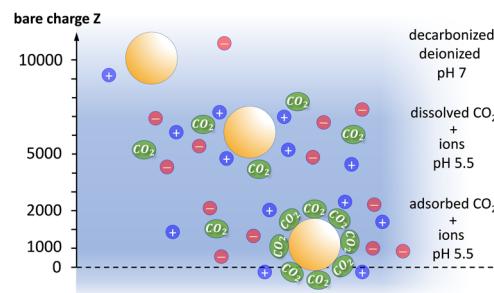
Eunseok Heo, Hye Been Koo, Jun Chang Yang, In Cho, Hyun-Hee Lee, Yong-Jin Yoon, Steve Park and Jae-Byum Chang*



9261

CO_2 -induced drastic decharging of dielectric surfaces in aqueous suspensions

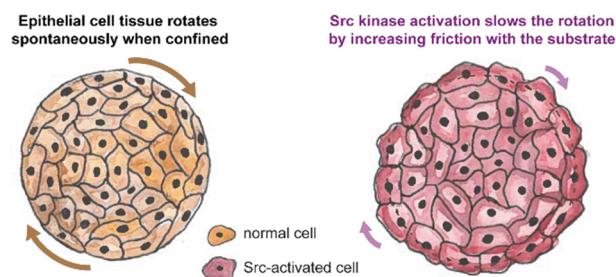
Peter Vogel,* David Beyer, Christian Holm and Thomas Palberg



9273

Src kinase slows collective rotation of confined epithelial cell monolayers

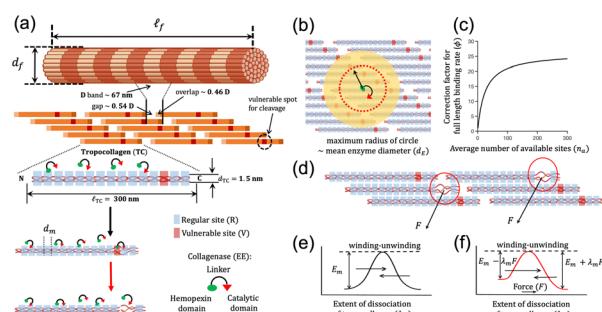
Nastassia Pricoupenko, Flavia Marsigliesi, Philippe Marcq, Carles Blanch-Mercader* and Isabelle Bonnet*



9286

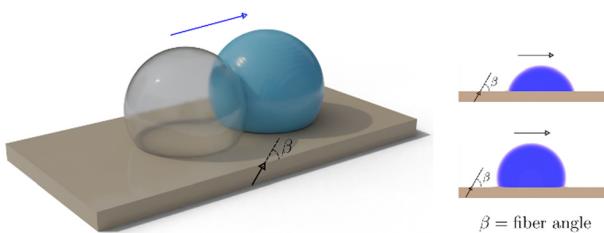
Modeling collagen fibril degradation as a function of matrix microarchitecture

Bhanjan Debnath, Badri Narayanan Narasimhan, Stephanie I. Fraley* and Padmini Rangamani*

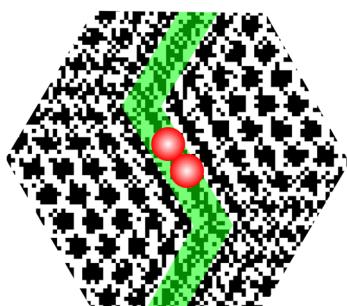


PAPERS

9301

**Fibrotaxis: gradient-free, spontaneous and controllable droplet motion on soft solids**Sthavishtha R. Bhopalam, Jesus Bueno and
Hector Gomez*

9312

**Magnetic colloidal single particles and dumbbells on a tilted washboard moiré pattern in a precessing external field**Farzaneh Farrokhzad, Nico C. X. Stuhlmüller,
Piotr Kuświk, Maciej Urbaniak, Feliks Stobiecki,
Sapida Akhundzada, Arno Ehresmann,
Daniel de las Heras and Thomas M. Fischer*