

# Soft Matter

Where physics meets chemistry meets biology for fundamental soft matter research

[rsc.li/soft-matter-journal](https://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.

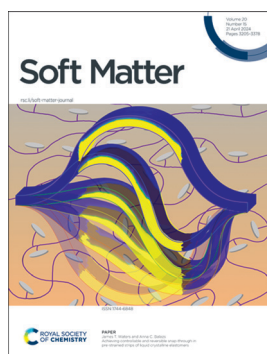
## IN THIS ISSUE

ISSN 1744-6848 CODEN SMOABF 20(15) 3205–3378 (2024)



### Cover

See Atsushi Shishido *et al.*, pp. 3248–3255. Image reproduced by permission of Jiayi Yu and Atsushi Shishido from *Soft Matter*, 2024, 20, 3248. Image credit: Jiayi Yu.



### Inside cover

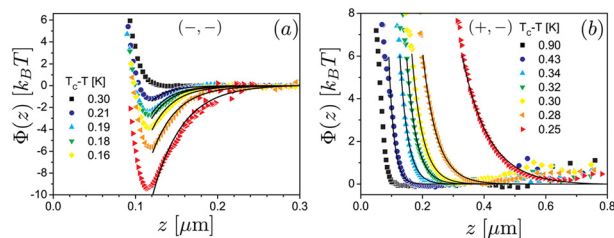
See James T. Waters and Anna C. Balazs, pp. 3256–3270. Image reproduced by permission of Anna C. Balazs and James T. Waters from *Soft Matter*, 2024, 20, 3256.

## REVIEW

3212

### Critical Casimir forces in soft matter

A. Gambassi and S. Dietrich

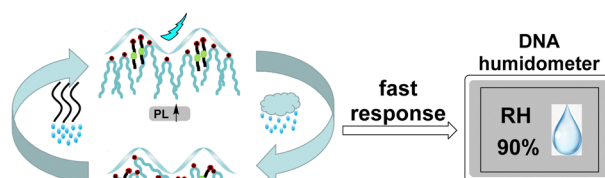


## COMMUNICATION

3243

### DNA liquid crystals with AIE effect toward humidity-indicating biomaterials

Guoqiang Zhang, Jing Zhao, Qikai Liang, Zhongtao Wu,\* Lei Zhang\* and Xiliang Luo\*



# Environmental Science journals

One impactful portfolio for  
every exceptional mind

Harnessing the power of interdisciplinary  
science to preserve our environment

[rsc.li/envsci](https://rsc.li/envsci)

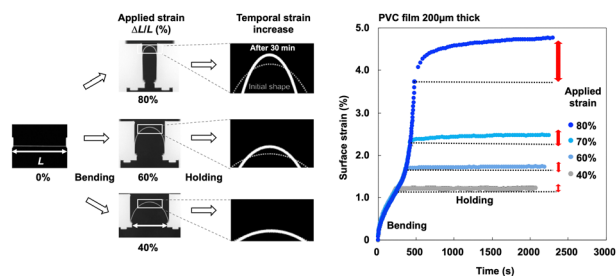
Fundamental questions  
Elemental answers



3248

## Bending creep behaviour of various polymer films analysed by surface strain measurement

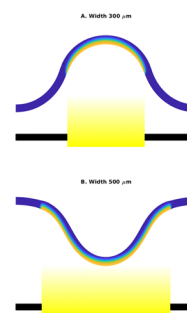
Jiayi Yu, Masayuki Kishino, Kyohei Hisano and Atsushi Shishido\*



3256

## Achieving controllable and reversible snap-through in pre-strained strips of liquid crystalline elastomers

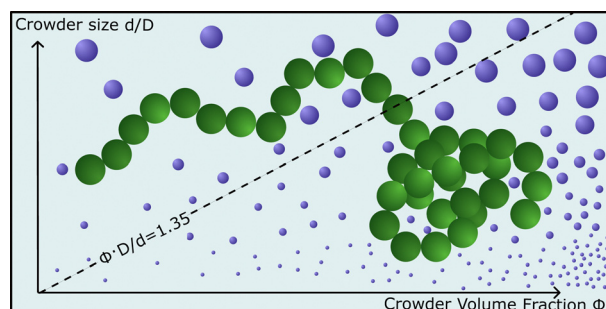
James T. Waters and Anna C. Balazs\*



3271

## A mean-field theory for predicting single polymer collapse induced by neutral crowders

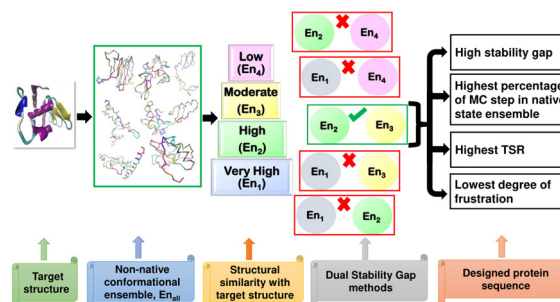
Quentin Chaboche, Gerardo Campos-Villalobos, Giuliana Giunta, Marjolein Dijkstra, Marco Cosentino Lagomarsino\* and Vittore F. Scolari\*



3283

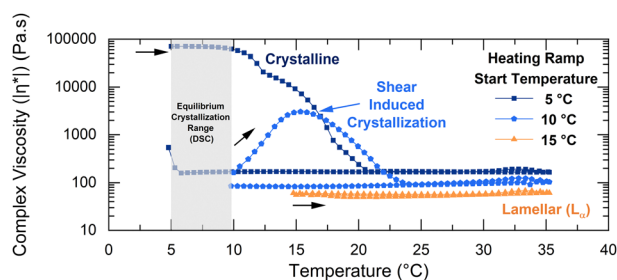
## In silico design of misfolding resistant proteins: the role of structural similarity of a competing conformational ensemble in the optimization of frustration

Bondeepa Saikia and Anupaul Baruah\*





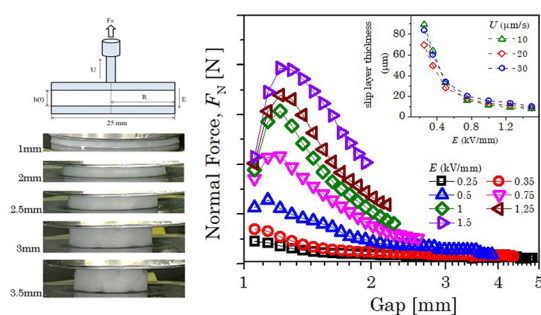
3299



### Effects of shear-induced crystallization on the complex viscosity of lamellar-structured concentrated surfactant solutions

Parth U. Kelkar, Matthew Kaboolian, Ria D. Corder, Marco Caggioni, Seth Lindberg and Kendra A. Erk\*

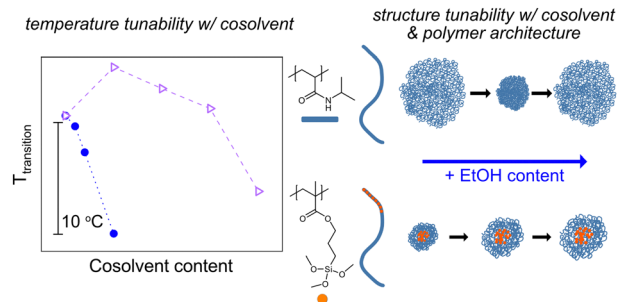
3313



### Pure elongation flow of an electrorheological fluid: insights on wall slip from electrorheology

Ishu Chaudhary and Manish Kaushal\*

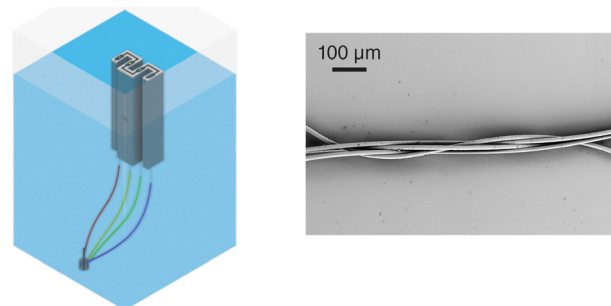
3322



### Cosolvent incorporation modulates the thermal and structural response of PNIPAM/silyl methacrylate copolymers

Jason D. Linn, Fabian A. Rodriguez and Michelle A. Calabrese\*

3337



### Braiding, twisting, and weaving microscale fibers with capillary forces

Ahmed Sherif, Maya Winters Faaborg, Cheng Zeng, Michael P. Brenner and Vinothan N. Manoharan\*

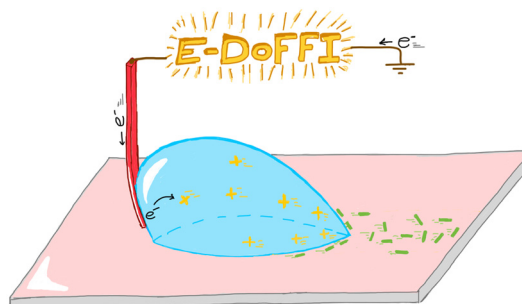


## PAPERS

3349

## Slide electrification of drops at low velocities

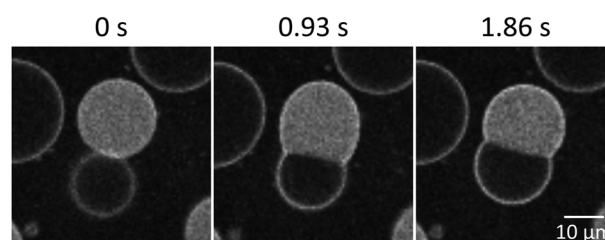
Chirag Hinduja, Hans-Jürgen Butt and Rüdiger Berger\*



3359

## Interaction between stabilized droplets of different phases in the same continuous phase of an aqueous three-phase system

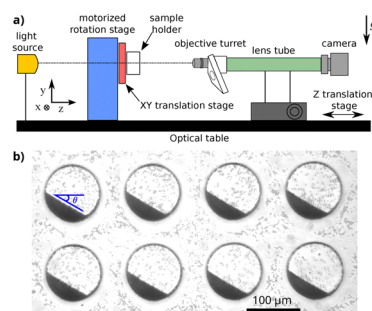
Do-Nhu-Trang Nguyen, Léa Waldmann, Valérie Ravaine, Taco Nicolai\* and Lazhar Benyahia\*



3367

## Effects of salinity on the flow of dense colloidal suspensions

Marc Lagoin, Agnès Piednoir, Rémy Fulcrand and Antoine Bérut\*



## CORRECTION

3376

## Correction: Sizing multimodal suspensions with differential dynamic microscopy

Joe J. Bradley,\* Vincent A. Martinez, Jochen Arlt, John R. Royer and Wilson C. K. Poon

