

# Soft Matter

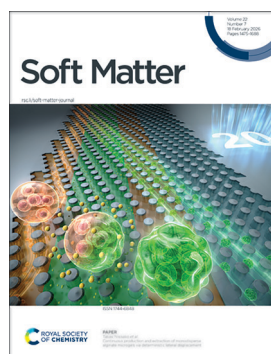
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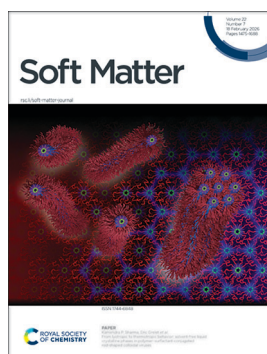
## IN THIS ISSUE

ISSN 1744-6848 CODEN SMOABF 22(7) 1475-1688 (2026)



### Cover

See Takasi Nisisako *et al.*, pp. 1483–1493. Image reproduced by permission of Takasi Nisisako from *Soft Matter*, 2026, 22, 1483.



### Inside cover

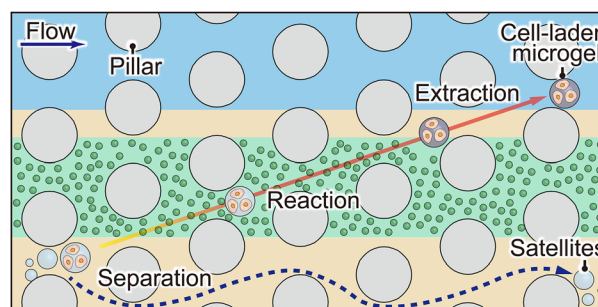
See Kamendra P. Sharma, Eric Grelet *et al.*, pp. 1494–1503. Image reproduced by permission of Lohitha R. Hegde *et al.* from *Soft Matter*, 2026, 22, 1494.

## PAPERS

1483

### Continuous production and extraction of monodisperse alginate microgels via deterministic lateral displacement

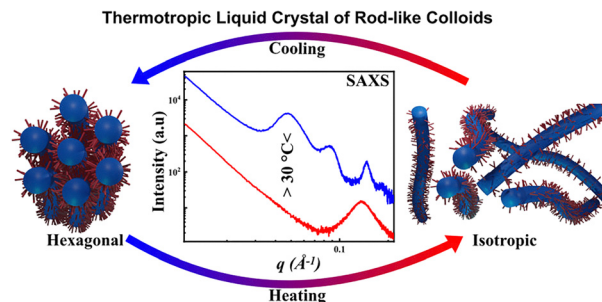
Naotomo Tottori, Yeyi Tang, Yusuke Kanno and Takasi Nisisako\*



1494

### From lyotropic to thermotropic behavior: solvent-free liquid crystalline phases in polymer-surfactant-conjugated rod-shaped colloidal viruses

Lohitha R. Hegde, Kamendra P. Sharma\* and Eric Grelet\*



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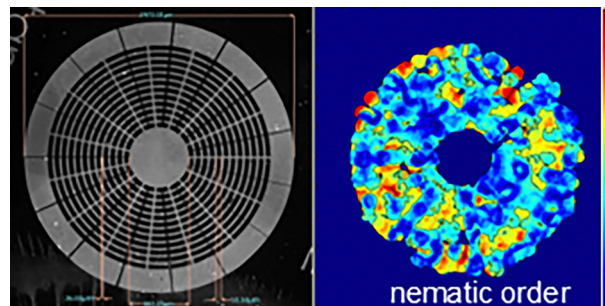
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1504

### Cancer cell dynamics navigating the complex microenvironment: active nematics and dynamic heterogeneity

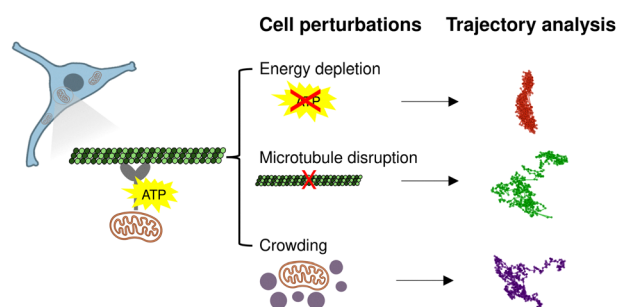
Trevor Reid, Colton Ramsey, Yang Jiao, Yanping Liu\* and Bo Sun\*



1510

### The influence of cellular energy status, microtubules, and crowding on mitochondrial motion

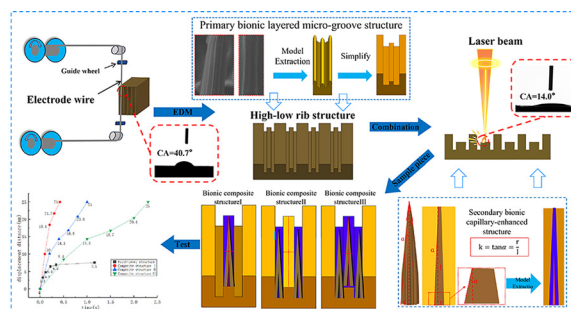
Beatrice Corci, Werner J. H. Koopman, Amalia M. Dolga and Christoffer Åberg\*



1526

### A secondary composite bionic microstructure inspired by bottle grass to enhance the directional movement properties of droplets

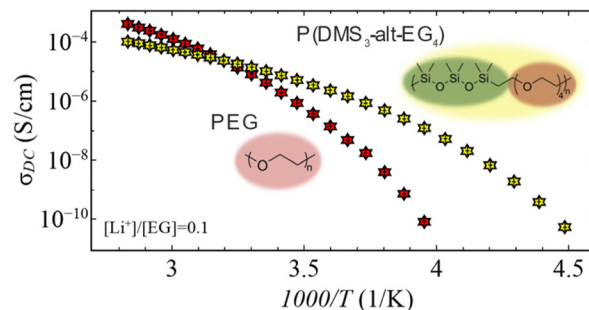
Ziyang Zhou, Yanling Wan,\* Yonghua Wang and Qingquan Li



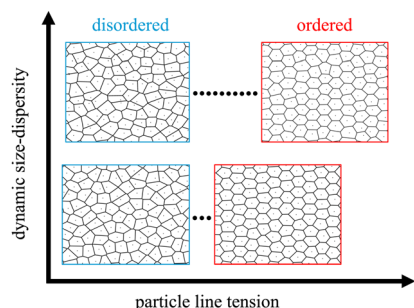
1540

### Accelerating ion transport by dynamic asymmetry of alternating polymer electrolytes

Bruno Jakobi,\* Karin J. Bichler, Alice Klapproth, Richard A. Mole and Gerald J. Schneider\*



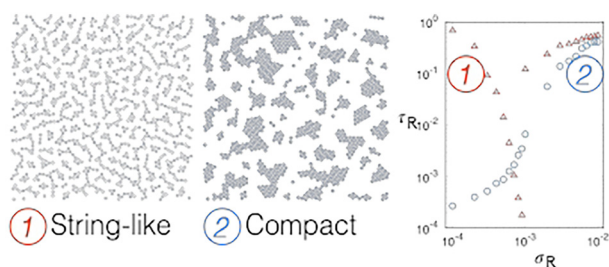
1551



### Order–disorder transition in soft and deformable particle assembly with dynamic size-dispersity in two dimensions

Rahul Kumar, Sangwoo Lee and Patrick T. Underhill\*

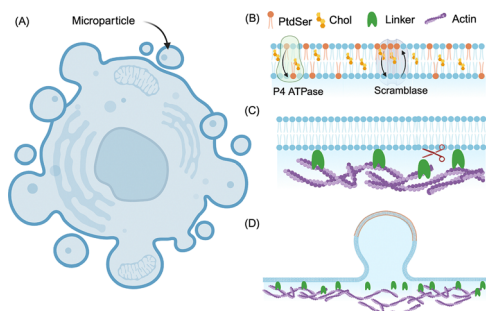
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### Spatially resolved fast dynamics reveal the aggregation mechanism in two-dimensions

Tamoghna Das\* and Mahesh M. Bandi

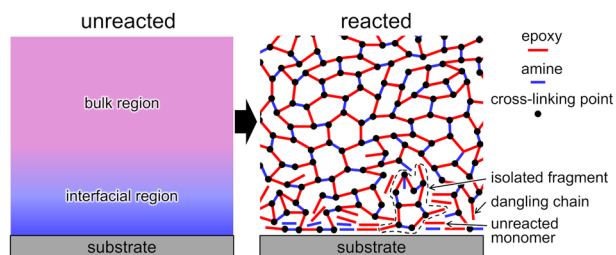
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### Interplay between cortical adhesion and membrane bending regulates the formation of microparticles

Arijit Mahapatra, Sage A. Malingen and Padmini Rangamani\*

1583



Characteristics of interfacial region  
amine segregation, orientation, and slower dynamics

### Molecular picture of curing and incomplete cross-linking of epoxy at a solid interface

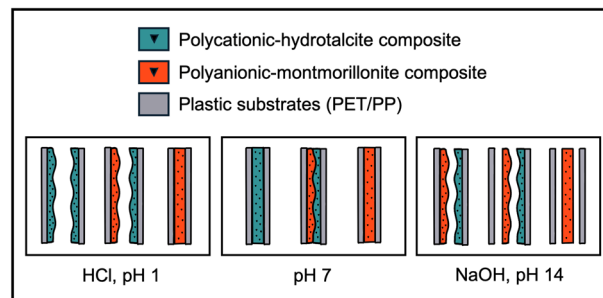
Satoru Yamamoto,\* Riichi Kuwahara and Keiji Tanaka\*



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### One-pot polymer–clay composite reversible adhesive

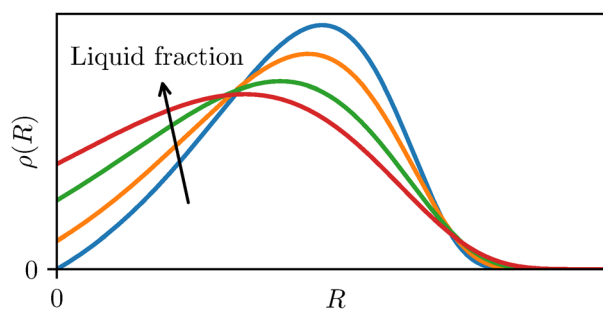
Adriana Sierra-Romero,\* Emmanuel Abotsi, Katarina Novakovic and Mark Geoghegan



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### Mean-field model for the bubble size distribution in coarsening wet foams

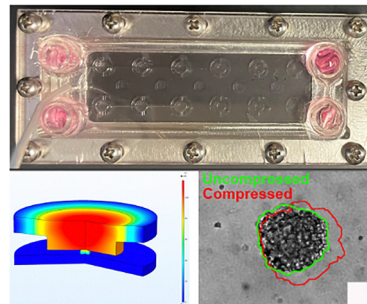
Jacob Morgan\* and Simon Cox



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### Viscoelastic properties of tumor spheroids revealed by a microfluidic compression device and a modified power law model

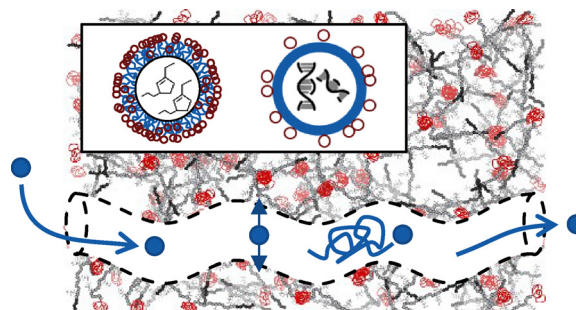
Mrinal Pandey, Bangguo Zhu, Kaitlyn Roach, Young Joon Suh, Jeffrey E. Segall, Chung-Yuen Hui and Mingming Wu\*



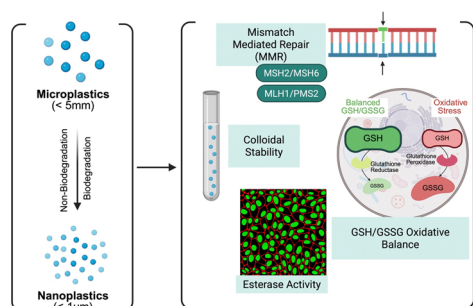
1630

### Drug & virus transport across biological barriers: interactions, diffusion, partitioning, permeability, and selectivity

Mikael O. Ellingson and Michael A. Bevan\*



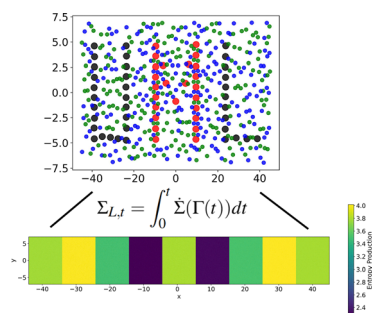
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### Tiny plastic, big trouble: how polystyrene nanoparticles impact DNA-damage repair deficient cervical cancer cells

Jordan D. Berezowitz, Mira C. Fish, Lauren E. Mehanna, Breanna Knicely, Claire E. Rowlands, Eva M. Goellner and Brittany E. Givens\*

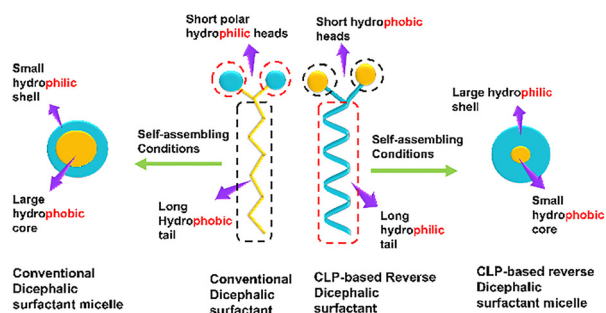
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### Programming entropy production hotspots via interaction patterning

Caroline Desgranges\* and Jerome Delhommelle\*

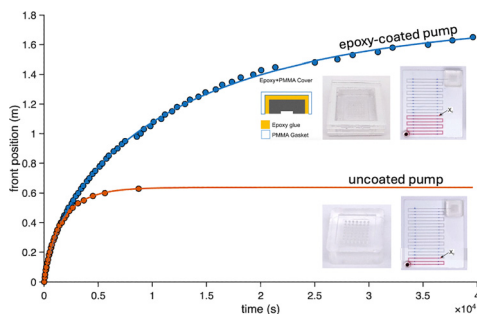
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### Design and self-assembly of an unconventional peptide-based dicephalic surfactant with an inverted architecture

Vinoth Vetrivel, Manaswini Gowtham, Madivala G. Basavaraj, Vinod K. Aswal, Gopalan Akilandeswari, Niraikulam Ayyadurai and Ganesh Shanmugam\*

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### Epoxy coating to prolong actuation time in degas-driven PDMS micropumps

Yara Alvarez-Braña, Andreu Benavent-Claró, Fernando Benito-Lopez, Aurora Hernandez-Machado\* and Lourdes Basabe-Desmots\*

