

# Soft Matter

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## IN THIS ISSUE

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### Cover

See Thibaut Divoux *et al.*, pp. 6868–6888. Image reproduced by permission of Thibaut Divoux from *Soft Matter*, 2024, 20, 6868. Image by Tanya Grypachevskaya.



### Inside cover

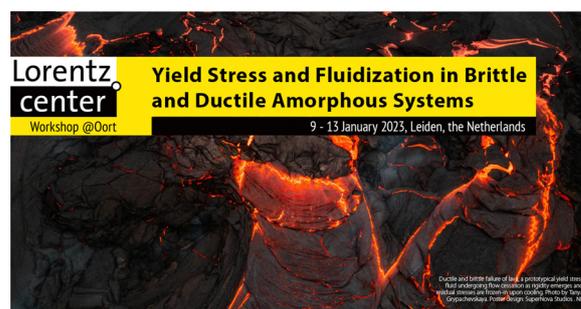
See Simon Čopar and Žiga Kos, pp. 6894–6906. Image reproduced by permission of Simon Čopar and Žiga Kos from *Soft Matter*, 2024, 20, 6894.

## PERSPECTIVE

6868

### Ductile-to-brittle transition and yielding in soft amorphous materials: perspectives and open questions

Thibaut Divoux,\* Elisabeth Agoritsas, Stefano Aime, Catherine Barentin, Jean-Louis Barrat, Roberto Benzi, Ludovic Berthier, Dapeng Bi, Giulio Biroli, Daniel Bonn, Philippe Bourrianne, Mehdi Bouzid, Emanuela Del Gado, H el ene Delano -Ayari, Kasra Farain, Suzanne Fielding, Matthias Fuchs, Jasper van der Gucht, Silke Henkes, Mazyar Jalaal, Yogesh M. Joshi, Ana el Lema tre, Robert L. Leheny, S ebastien Manneville, Kirsten Martens, Wilson C. K. Poon, Marko Popovi , Itamar Procaccia, Laurence Ramos, James A. Richards, Simon Rogers, Saverio Rossi, Mauro Sbragaglia, Gilles Tarjus, Federico Toschi, V eronique Trappe, Jan Vermant, Matthieu Wyart, Francesco Zamponi and Davoud Zare

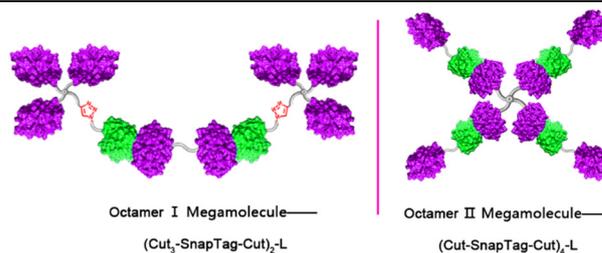


## COMMUNICATION

6889

### Construction of homologous branched oligomer megamolecules based on linker-directed protein assembly

Yue Chen, Honghong Feng, Long Chen, Wenbin Zhou and Shengwang Zhou\*



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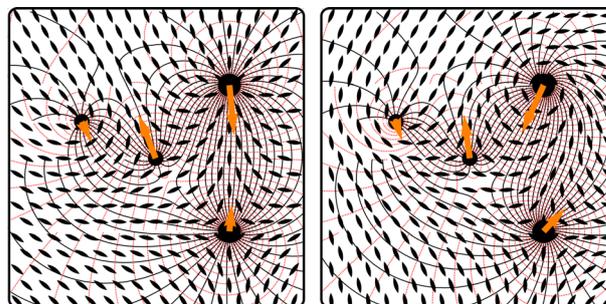
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6894

### Many-defect solutions in planar nematics: interactions, spiral textures and boundary conditions

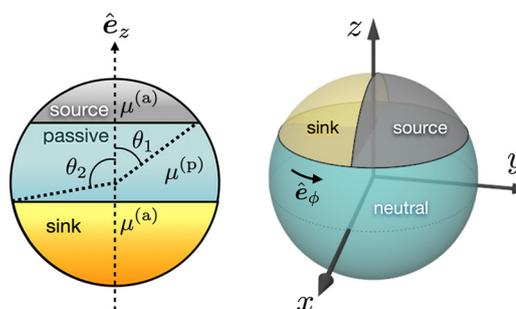
Simon Čopar\* and Žiga Kos\*



6907

### Phoresis kernel theory for passive and active spheres with nonuniform phoretic mobility

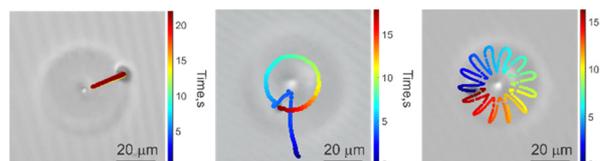
Amir Nourhani



6920

### Light-controllable liquid crystal platform for microparticle oscillations and transport

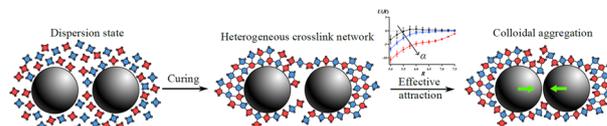
Sergey Shvetsov,\* Tetiana Orlova, Aleksandr Hayrapetyan, Alexey Vasil'ev and Mushegh Rafayelyan



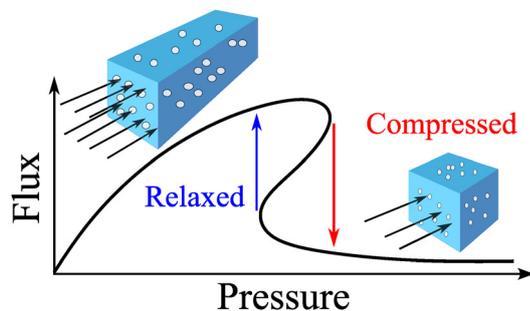
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### Emergence of long-range attractive interactions between colloidal particles during curing of dispersion media

Yujiro Furuta and Rei Kurita\*



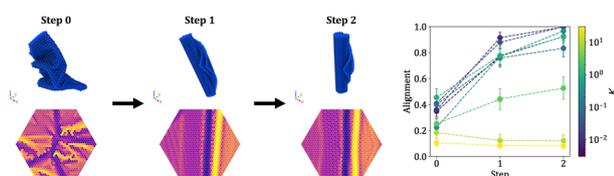
6940



### Hysteresis in flow-induced compression of a poroelastic hydrogel

Zelai Xu, Pengtao Yue and James J. Feng\*

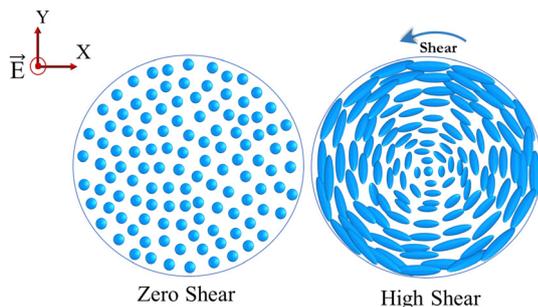
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### Shear annealing of a self-interacting sheet

William T. Funkenbusch, Kevin S. Silmore and Patrick S. Doyle\*

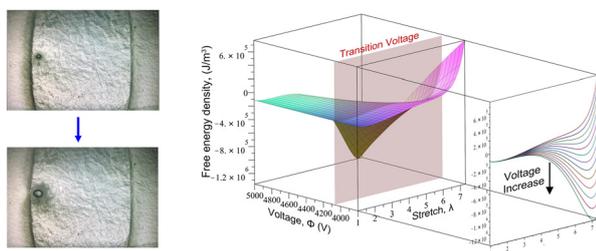
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### Effect of rotational shear on the dielectric dispersion of a nematic liquid crystal above the Fredericksz threshold field

K. Anaswara Das, M. Praveen Kumar, Simon Čopar and Surajit Dhara\*

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Electromechanical phase transition

### Microscopic *in situ* observation of electromechanical instability in a dielectric elastomer actuator utilizing transparent carbon nanotube electrodes

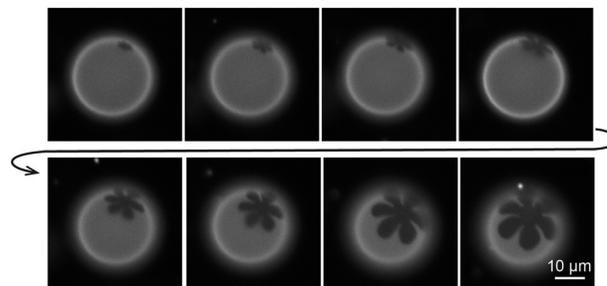
Zhen-Qiang Song,\* Li-Min Wang, Yongri Liang, Xiao-Dong Wang and Shijie Zhu\*



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### Thermal preconditioning of membrane stress to control the shapes of ultrathin crystals

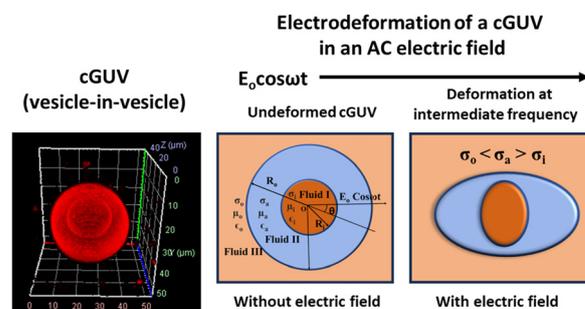
Hao Wan, Geunwoong Jeon, Gregory M. Grason and Maria M. Santore\*



6995

### Compound giant unilamellar vesicles as a bio-mimetic model for electrohydrodynamics of a nucleate cell

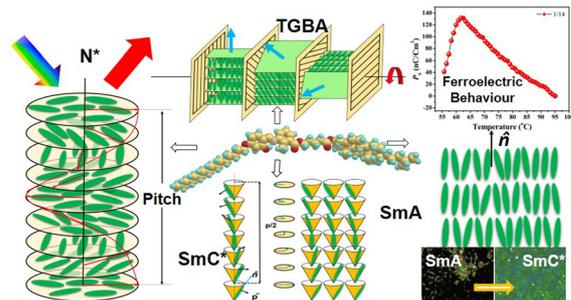
Rupesh Kumar, Rajarshi Chakrabarti and Rochish M. Thaokar\*



7012

### Observation of ferroelectric behaviour in non-symmetrical cholesterol-based bent-shaped dimers

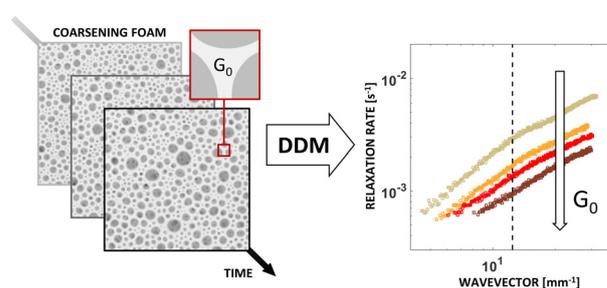
Vidhika Punjani, Golam Mohiuddin, Susanta Chakraborty, Priyanta Barman, Anshika Baghla, Madhu Babu Kanakala, Malay Kumar Das, Channabasaveshwar Yelamaggad and Santanu Kumar Pal\*



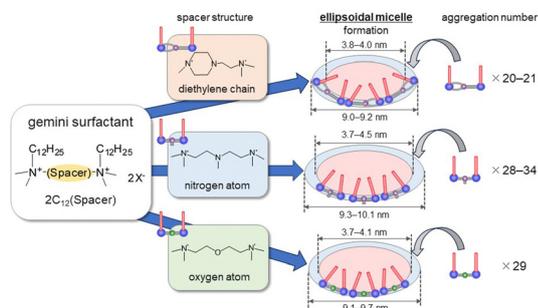
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### Anomalous relaxation of coarsening foams with viscoelastic continuous phases

Chiara Guidolin,\* Emmanuelle Rio, Roberto Cerbino, Anniina Salonen and Fabio Giavazzi\*



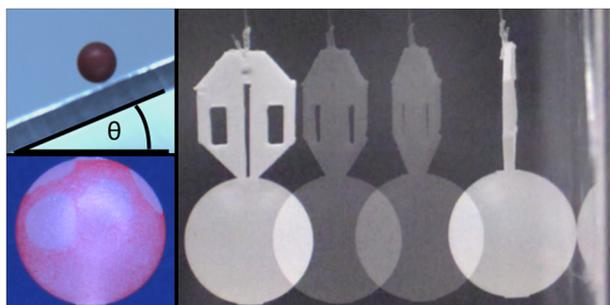
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### Ellipsoidal micelle formation of quaternary ammonium salt-based gemini surfactants: structural analysis through small-angle X-ray scattering

Tsukasa Morita, Shiho Yada and Tomokazu Yoshimura\*

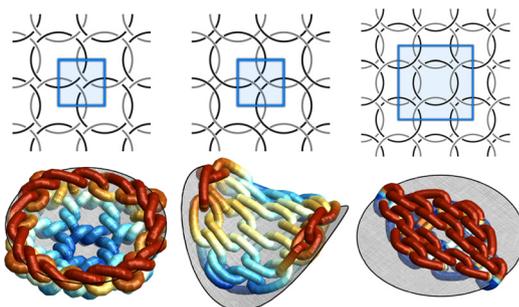
7038



### Torque about electrostatically charged spheres makes them more attractive

Michael R. Swift and Mike I. Smith\*

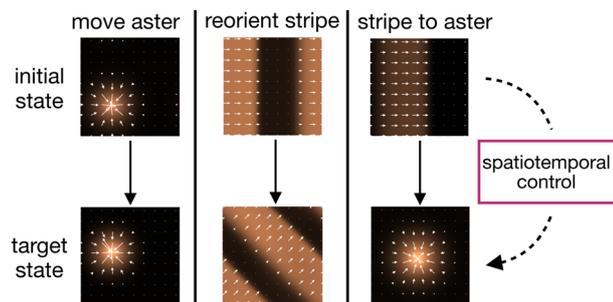
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### Chirality effects in molecular chainmail

Alexander R. Klotz,\* Caleb J. Anderson and Michael S. Dimitriyev

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### Spatiotemporal control of structure and dynamics in a polar active fluid

Saptorshi Ghosh, Chaitanya Joshi, Aparna Baskaran\* and Michael F. Hagan\*



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## Multi-functional imidazolium dendrimers based on thiacalix[4]arenes: self-assembly, catalysis and DNA binding

Elza D. Sultanova,\* Angelina A. Fedoseeva, Aigul M. Fatykhova, Diana A. Mironova, Sufia A. Ziganshina, Marat A. Ziganshin, Vladimir G. Evtugyn, Vladimir A. Burilov, Svetlana E. Solovieva and Igor S. Antipin

