

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(19) 3879-4044 (2024)



Cover

See Roee Bashan and Naomi Oppenheimer, pp. 3901–3909.

Image reproduced by permission of Naomi Oppenheimer from *Soft Matter*, 2024, 20, 3901.

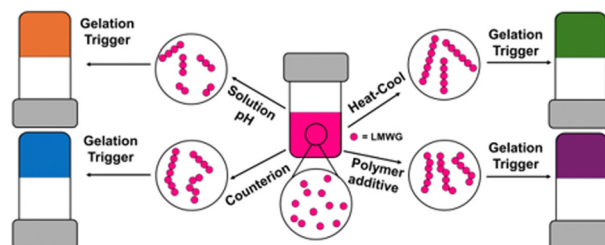
Artist credit: Alexey Chizhik

REVIEW

3887

Methods of changing low molecular weight gel properties through gelation kinetics

Rebecca E. Ginesi* and Emily R. Draper*

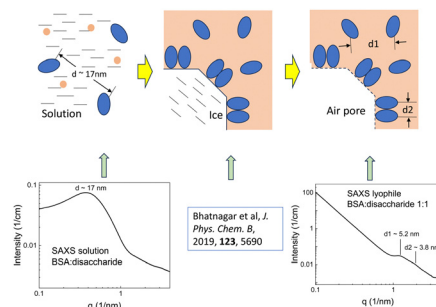


COMMUNICATION

3897

Two populations of protein molecules detected by small-angle neutron and X-ray scattering (SANS and SAXS) in lyophilized protein:lyoprotector (disaccharide) systems

Viviana Cristiglio, Shaoxin Feng,* Michael Sztucki, Xiaoda Yuan and Evgenyi Shalaev*



RSC Advances

At the heart of open access for
the global chemistry community

Editor-in-chief

Russell J Cox

Leibniz Universität Hannover, Germany

We stand for:



Breadth We publish work in all areas of chemistry and reach a global readership



Affordability Low APCs, discounts and waivers make publishing open access achievable and sustainable



Quality Research to advance the chemical sciences undergoes rigorous peer review for a trusted, society-run journal

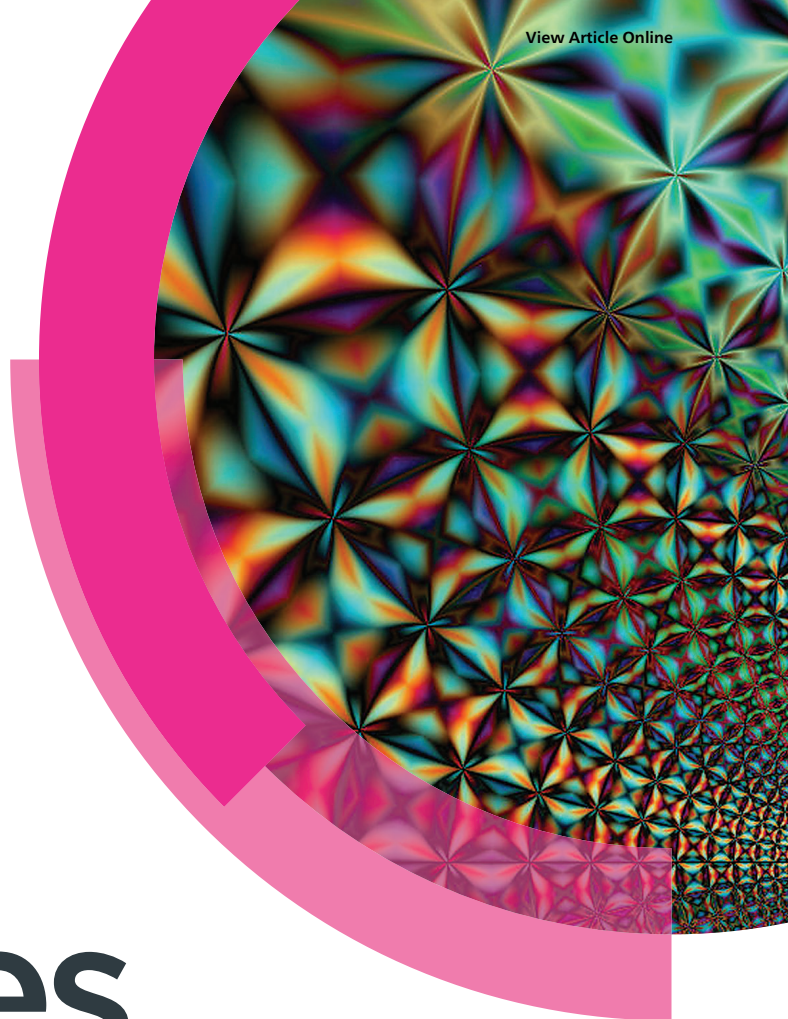


Community Led by active researchers, we publish quality work from scientists at every career stage, and all countries

Submit your work now

rsc.li/rsc-advances

@RSC_Adv

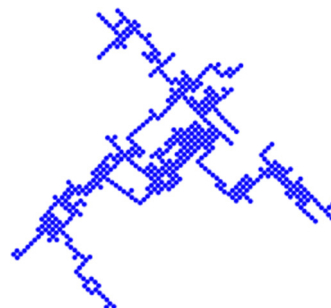


PAPERS

3901

Hydrodynamically induced aggregation of two dimensional oriented active particles

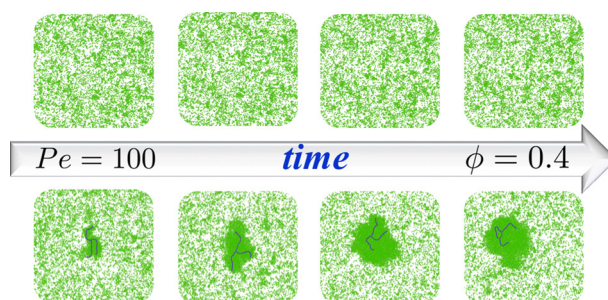
Roe Bashan and Naomi Oppenheimer*



3910

A passive star polymer in a dense active bath: insights from computer simulations

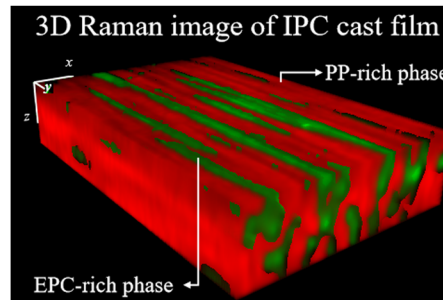
Ramanand Singh Yadav, Sanaa Sharma, Ralf Metzler* and Rajarshi Chakrabarti*



3923

Morphology of impact polypropylene copolymer extruded cast film revealed by confocal Raman imaging

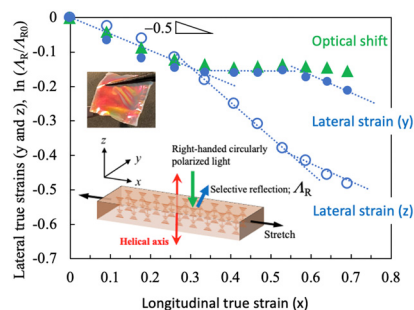
Chunbo Zhang,* Meng Xu, Minqiao Ren, Hongwei Shi,* Guoming Liu, Juan Li, Xuanbo Liu, Longgui Zhang* and Dali Gao



3931

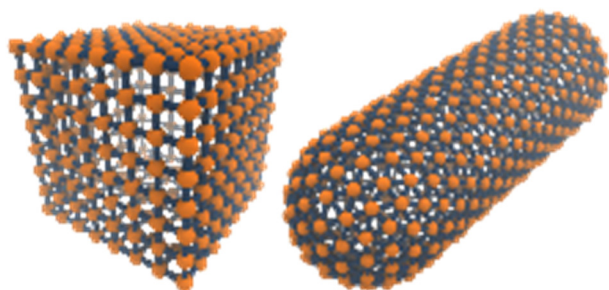
Significant anisotropic deformation and optical shifts in stretched cholesteric liquid crystal elastomers

Saki Mori, Hideaki Takagi, Nobutaka Shimizu, Noriyuki Igarashi, Shinichi Sakurai and Kenji Urayama*



PAPERS

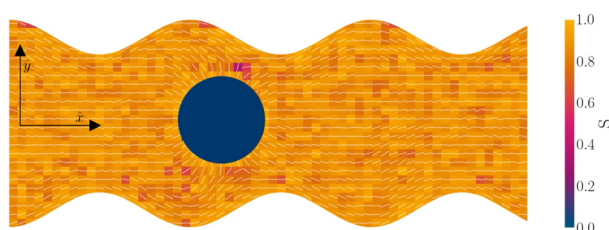
3942



Mesoscale simulations of diffusion and sedimentation in shape-anisotropic nanoparticle suspensions

Yashraj M. Wani, Penelope Grace Kovakas, Arash Nikoubashman* and Michael P. Howard*

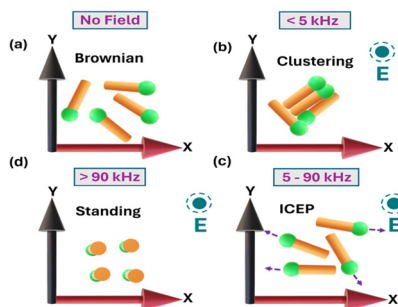
3954



Lock-key microfluidics: simulating nematic colloid advection along wavy-walled channels

Karolina Wamsler, Louise C. Head and Tyler N. Shendruk*

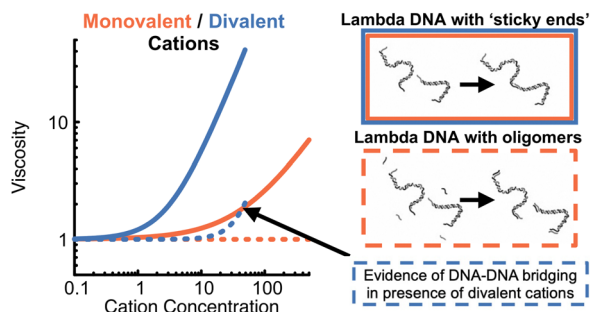
3971



Dynamics and phase behavior of metallo-dielectric rod-shaped microswimmers driven by alternating current electric field

Suvendu Kumar Panda, Srikanta Debata, Nomaan Alam Kherani and Dhruv Pratap Singh*

3980



Effects of monovalent and divalent cations on the rheology of entangled DNA

Jennifer Harnett, Simon Weir and Davide Michieletto*

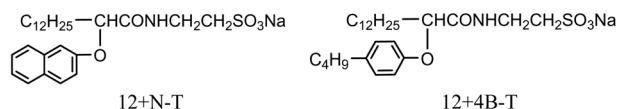


PAPERS

3987

The effect of aromatic side chains on the dilational rheological properties of *N*-acyltaurate amphiphiles at water–decane interfaces

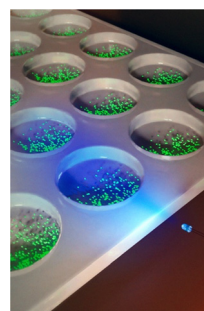
Yang-wen Zhu, Zhi-cheng Xu, Li Zhang, Ping Liu, Yu Hou, Lei Zhang* and Lu Zhang*



3996

Short-term memory effects in the phototactic behavior of microalgae

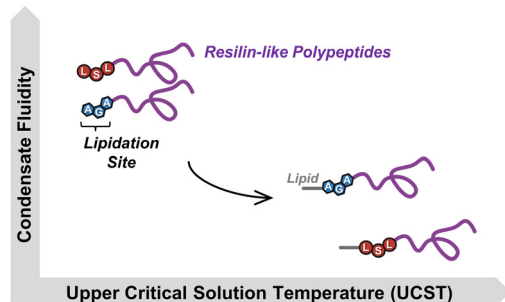
Taha Laroussi, Mojtaba Jarrahi and Gabriel Amselem*



4007

Lipidation alters the phase-separation of resilin-like polypeptides

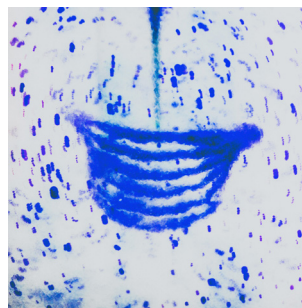
Zhe Zhang, Jingjing Ji, Md. Shahadat Hossain, Briah Bailey, Shikha Nangia* and Davoud Mozhdehi*



4015

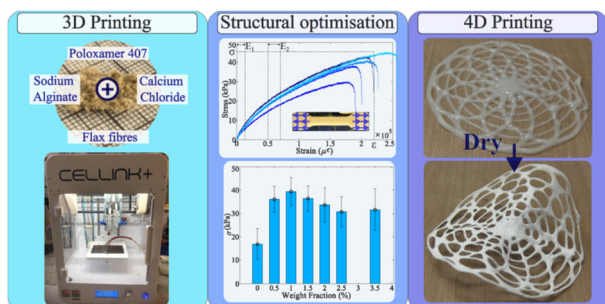
Confinement controls the creep rate in soft granular packings

Joshua A. Dijksman* and Tom Mullin



PAPERS

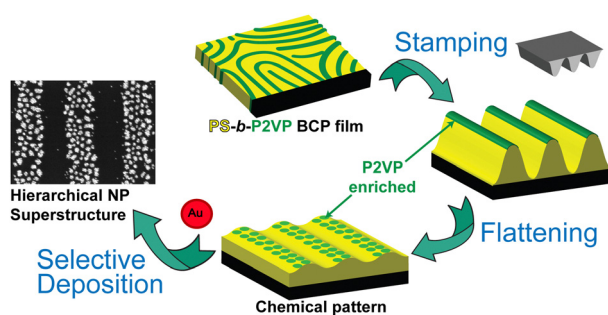
4021



Flax fibre reinforced alginate poloxamer hydrogel: assessment of mechanical and 4D printing potential

Charles de Kergariou,* Graham J. Day, Adam W. Perriman, James P. K. Armstrong and Fabrizio Scarpa

4035



Nanoparticle assembly by transient topography induced by applying soft lithography to block copolymer films

Meneka Banik and Roy Shenhar*

