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 21(10) 1773-1986 (2025)



Cover

See Catalin R. Picu, Ioannis Chasiotis et al... pp. 1841-1848. Image reproduced by permission of Ioannis Chasiotis et al. from Soft Matter. 2025, 21, 1841.



Inside cover

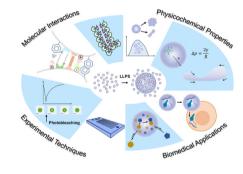
See Mohamed Laradii et al., pp. 1849-1859. Image reproduced by permission of Mohamed Laradji from Soft Matter. 2025, **21**, 1849.

REVIEWS

1781

Peptide-mediated liquid-liquid phase separation and biomolecular condensates

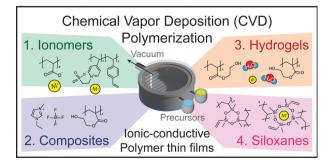
Guangle Li, Chenggian Yuan* and Xuehai Yan*



1813

Ion-conducting polymer thin films via chemical vapor deposition polymerization

Kwang-Won Park, Christina H Yu, Shuaicheng Fu and Rong Yang*





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

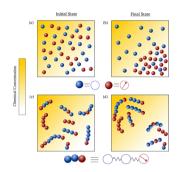


COMMUNICATION

1835

Transport of partially active polymers in chemical gradients

Shashank Ravichandir, Bhavesh Valecha, Pietro Luigi Muzzeddu, Jens-Uwe Sommer* and Abhinav Sharma*

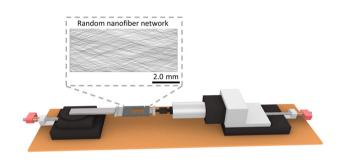


PAPERS

1841

An integrated experimental-computational investigation of the mechanical behavior of random nanofiber networks

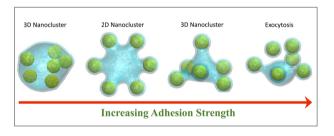
HyeongJu Lee, Mithun K. Dey, Kathiresan Karunakaran, Catalin R. Picu* and Ioannis Chasiotis*



1849

Nanostar self-assemblies of spherical nanoparticles inside lipid vesicles

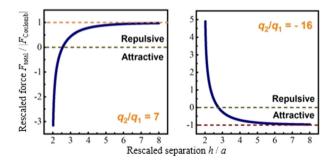
Yu Zhu, Abash Sharma, Eric J. Spangler and Mohamed Laradji*



1860

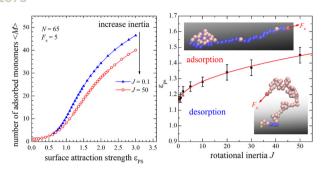
Mechanisms of electrostatic interactions between two charged dielectric spheres inside a polarizable medium: an effective-dipole analysis

Yanyu Duan, Zecheng Gan* and Ho-Kei Chan*



PAPERS

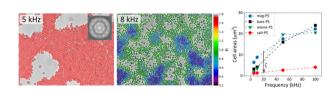
1873



Knotting and adsorption of end-grafted active polymers

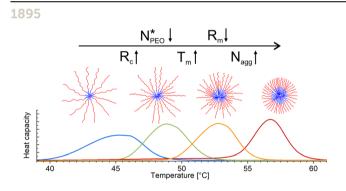
Yi-Fan Shen and Meng-Bo Luo*

1884



Structure, dynamics and phase transitions in electric field assembled colloidal crystals and glasses

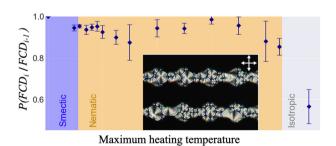
Indira Barros, Savanth Ramachandran and Indrani Chakraborty*



Modulating melting points in micellar cores: influence of the corona chain length on the core confinement in binary mixed block copolymer micelles

Szymon Mikołaj Szostak, Nico König, Lutz Willner and Reidar Lund*

1907



Quantifying memory: detection of focal conic domain rearrangement across a phase transition

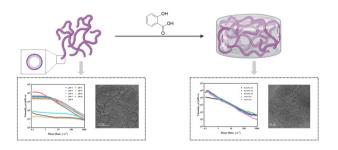
Sean Hare, Alexander de la Vega and Francesca Serra*

PAPERS

1915

Salicylic acid induces the formation of supramolecular antimicrobial hydrogels from worm-like micelles

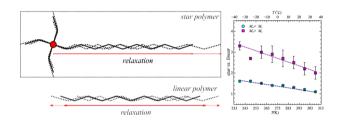
Dongfang Liu,* Liqin Huang, Yu Jing, Tingmei Huang, Di Zhang, Dong Jiang, Yaxin Zhao and Yuanyuan Zhang*



1925

Polymer dynamics at low molecular weight of poly(butylene oxide) star polymers

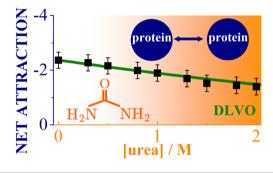
Karin J. Bichler,* Bruno Jakobi and Gerald J. Schneider*



1937

Urea and salt induced modulation of protein interactions: implications for crystallization and liquid-liquid phase separation

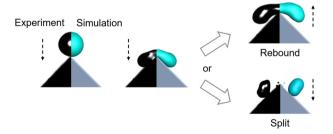
M. Madani, T. Hamacher and F. Platten*



1949

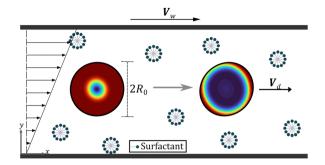
Drop splitting on hydrophobic wedge-shaped tips after central impact: effect of sharpness and wetting properties

Xiaoteng Zhou, Diego Diaz, Zhongyuan Ni, Sajjad Shumaly, Jie Liu, Michael Kappl* and Hans-Jürgen Butt*



PAPERS

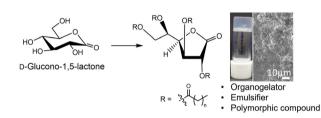
1957



Shear-induced dynamics of an active Belousov-Zhabotinsky droplet

Shreyas A. Shenoy, KVS Chaithanya and Pratyush Dayal*

1970



Synthesis of D-glucono-1,4-lactones modified with linear saturated fatty acids as novel low molecular-weight organogelators and evaluation of their physical properties

Shiro Komba

CORRECTION

1984

Correction: Engineering poly(dehydroalanine)-based gels via droplet-based microfluidics: from bulk to microspheres

Hannah F. Mathews, Tolga Çeper, Tobias Speen, Céline Bastard, Selin Bulut, Maria I. Pieper, Felix H. Schacher, Laura De Laporte and Andrij Pich*