

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.

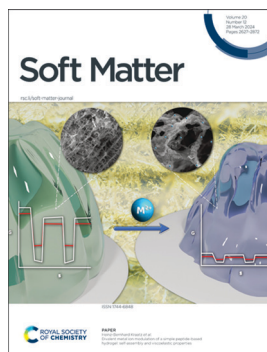
IN THIS ISSUE

ISSN 1744-6848 CODEN SMOABF 20(12) 2627-2872 (2024)



Cover

See Michael D. Bartlett, Andrew B. Croll *et al.*, pp. 2711–2719. Image reproduced by permission of Andrew B. Croll from *Soft Matter*, 2024, 20, 2711.



Inside cover

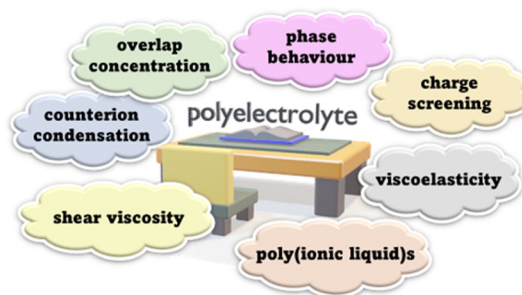
See Heinz-Bernhard Kraatz *et al.*, pp. 2720–2729. Image reproduced by permission of Tsuimiy Shao and Heinz-Bernhard Kraatz from *Soft Matter*, 2024, 20, 2720.

REVIEWS

2635

Dilute polyelectrolyte solutions: recent progress and open questions

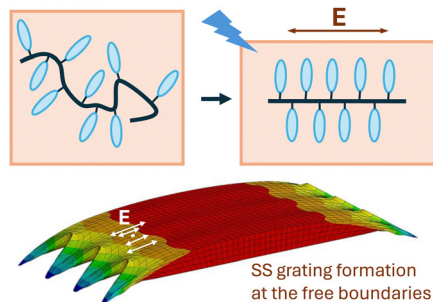
Carlos G. Lopez,* Atsushi Matsumoto* and Amy Q. Shen*



2688

Optical deformations of azobenzene polymers: orientation approach vs. other concepts

Marina Saphiannikova,* Vladimir Toshchevnikov and Nina Tverdokhlebova



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

**SAVE
10%**

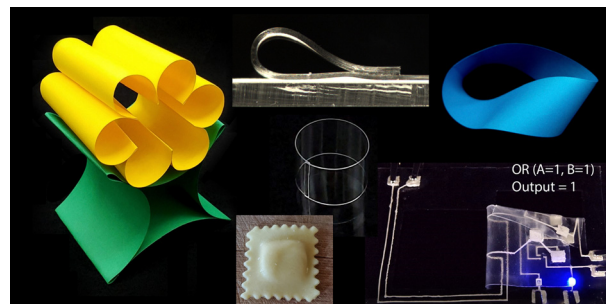


PAPERS

2711

Kuttsukigami: sticky sheet design

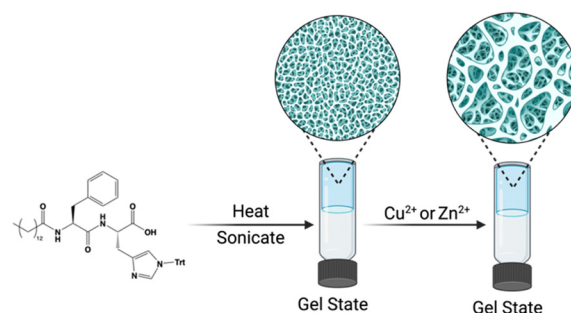
Timothy Twohig, Ravi Tutika, Wuzhou Zu,
Michael D. Bartlett* and Andrew B. Croll*



2720

Divalent metal ion modulation of a simple peptide-based hydrogel: self-assembly and viscoelastic properties

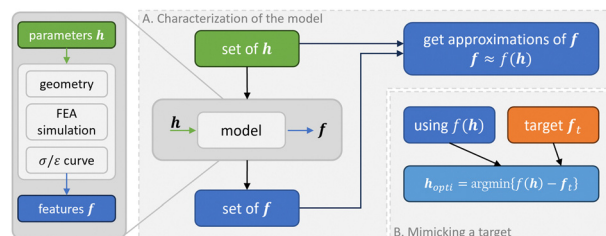
Tsuimiy Shao, Meissam Noroozifar and
Heinz-Bernhard Kraatz*



2730

Approximation of extracted features enabling 3D design tuning for reproducing the mechanical behaviour of biological soft tissues

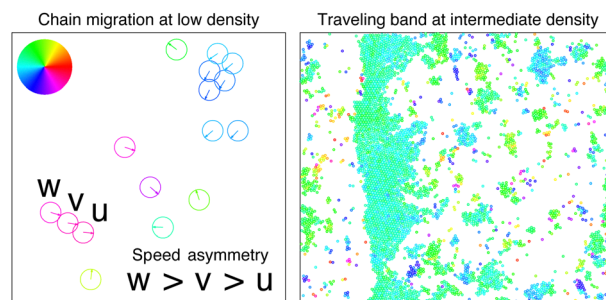
Vincent Serantoni,* Corinne Rouby, Ugo Heller and
Jean Boisson



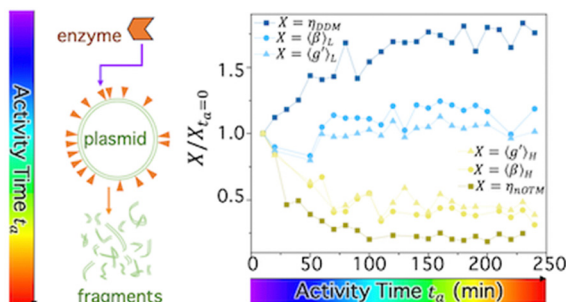
2739

Structure formation induced by non-reciprocal cell–cell interactions in a multicellular system

Biplab Bhattacharjee, Masayuki Hayakawa and
Tatsuo Shibata



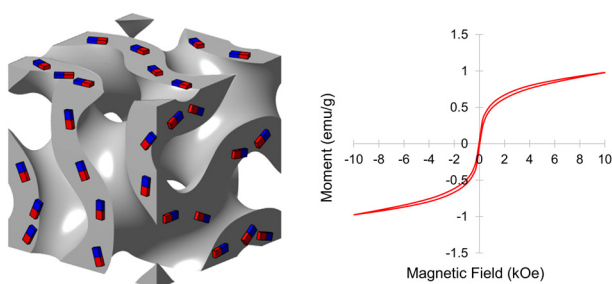
2750



Enzymatic cleaving of entangled DNA rings drives scale-dependent rheological trajectories

Philip Neill, Natalie Crist, Ryan McGorty and Rae Robertson-Anderson*

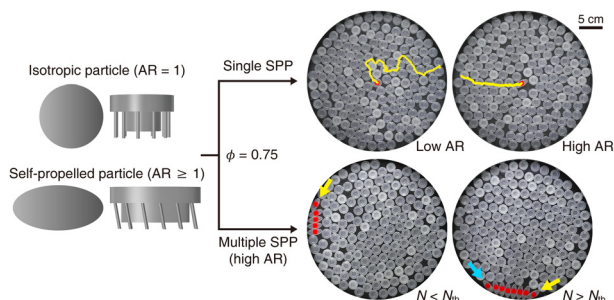
2767



Block copolymer self-assembly derived mesoporous magnetic materials with three-dimensionally (3D) co-continuous gyroid nanostructure

Amaury Jousset Drouhin, William R. T. Tait, William Moore, Fei Yu, Yuanzhi Li, Jörg G. Werner, R. Bruce van Dover and Ulrich B. Wiesner*

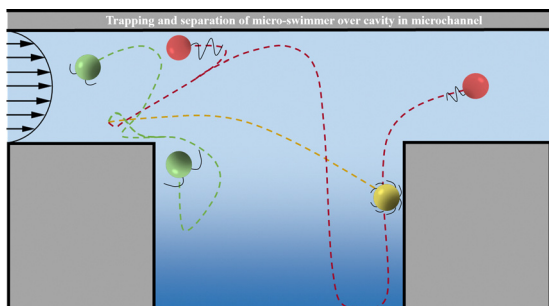
2777



Dynamics of self-propelled particles in vibrated dense granular media

Kyungmin Son, Yunsik Choe, Euijoon Kwon, Leonardo Garibaldi Rigon, Yongjoo Baek* and Ho-Young Kim*

2789



The motion of micro-swimmers over a cavity in a micro-channel

Xiao Hu, Weijin Chen, Jianzhong Lin,* Deming Nie, Zuchao Zhu and Peifeng Lin

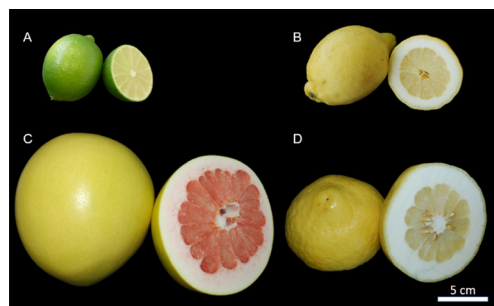


PAPERS

2804

Analysis of the peel structure of different *Citrus* spp. via light microscopy, SEM and μ CT with manual and automatic segmentation

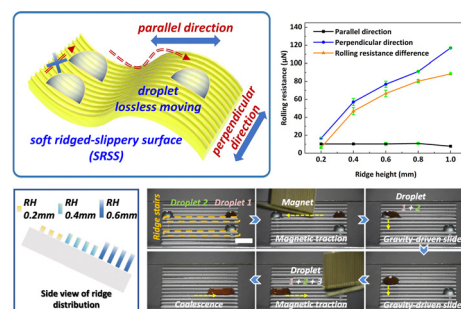
Maximilian Jentzsch,* Vanessa Albiez, Thalia C. Kardamakis and Thomas Speck*



2812

Efficient fabrication of bioinspired soft, ridged-slippy surfaces with large-range anisotropic wettability for droplet manipulation

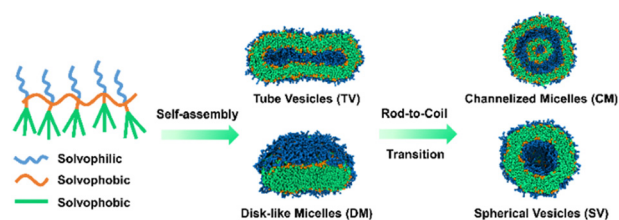
Long Jiao, Dingqiang Tan, Yanjun Hu,* Yijing Yang,* Qianqian Guo, Nan Zhou, Huaping Wu, Chen Chen, Xingang Zhao and Guohua Hu



2823

Self-assembly of amphiphilic asymmetric comb-like copolymers with responsive rigid side chains

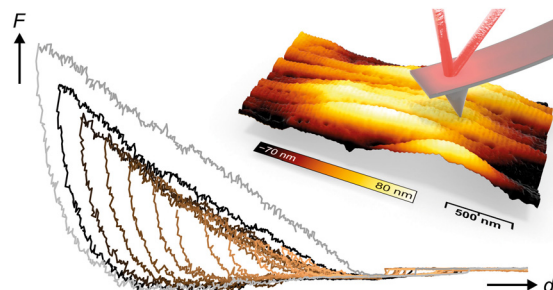
Zhengyi Li, Weisheng Feng, Xing Zhang, Binbin Xu,* Liquan Wang and Shaoliang Lin*



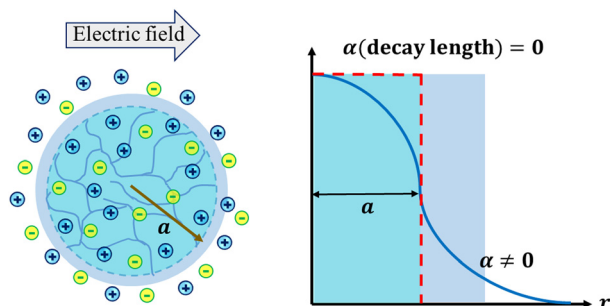
2831

Rate-independent hysteretic energy dissipation in collagen fibrils

Robert Magerle,* Paul Zech, Martin Dehnert, Alexandra Bendixen and Andreas Otto



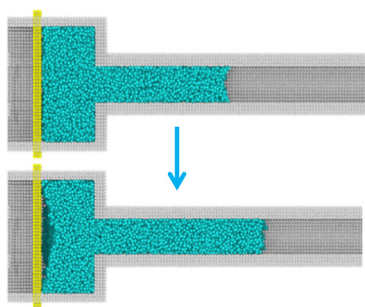
2840



Electrohydrodynamics of diffuse porous colloids

Paramita Mahapatra, S. K. Pal, H. Ohshima and Partha P. Gopmandal*

2863



A capillary-induced negative pressure is able to initiate heterogeneous cavitation

Shan Chen, Hongguang Zhang, Zhenjiang Guo, Ignacio Pagonabarraga* and Xianren Zhang*

