

# Soft Matter

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## IN THIS ISSUE

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### Cover

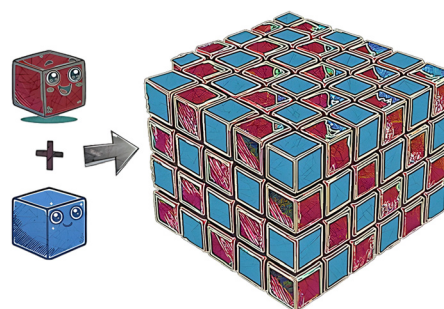
See Liping Liu, Pradeep Sharma *et al.*, pp. 5655-5668. Image reproduced by permission of Pratik Khandagale, Hao Lin, Liping Liu and Pradeep Sharma from *Soft Matter*, 2025, 21, 5655.

## REVIEW

5583

### Co-assembly of nanometer- and submicrometer-sized colloidal particles into multi-component ordered superstructures

Javier Fonseca,\* Li Jiao, Anna Broto-Ribas, Gurvinder Singh and Angang Dong

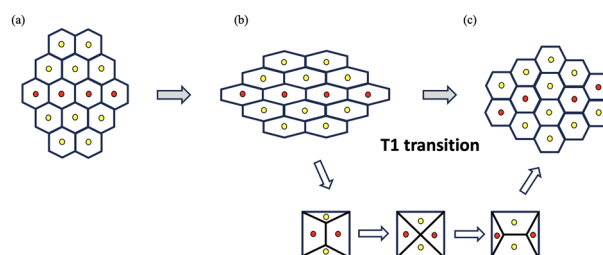


## PAPERS

5655

### Statistical mechanics of cell aggregates: explaining the phase transition and paradoxical piezoelectric behavior of soft biological tissues

Pratik Khandagale, Hao Lin, Liping Liu\* and Pradeep Sharma\*



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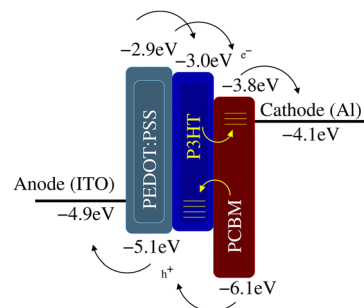
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5669

### Degradation mechanism of P3HT:PCBM-based bulk heterojunction solar cells

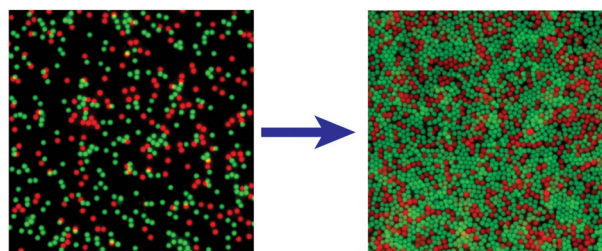
Tirukoti Mounika, Manshi Singh, Inderpreet Singh,\*  
P. Arun and Kuldeep Kumar\*



5675

### Frustrated crystallization kinetics in marginally mismatched binary self-assembly driven by depletion interactions

Sk Tahmid Shahriar, Chris Feltman, Sean Machler and  
Nabila Tanjeem\*



5687

### Progressive colloidal clogging mechanism by dendritic build-up in porous media

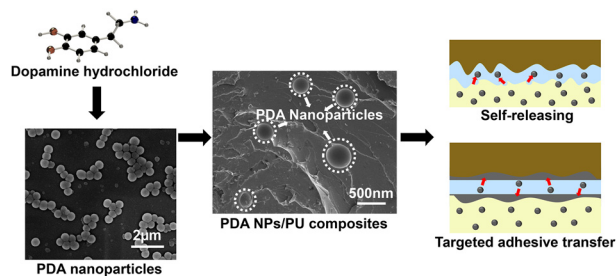
Walid Okaybi,\* Sophie Roman and Cyprien Soulaïne



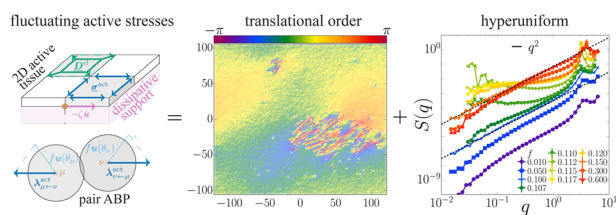
5699

### Preparation of polydopamine nanoparticles/ polyurethane composites for self-targeted transfer of hydration lubrication films underwater

Chaobao Wang, Yuyang Xi, Xinqi Zou,\* Xiuqin Bai,\*  
Jiale Chen and Binlu Zhang



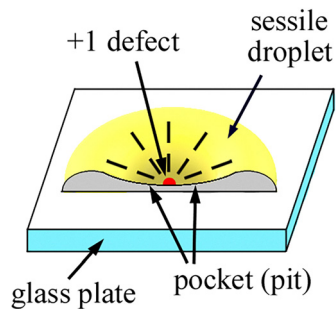
5710



### Long-range order in two-dimensional systems with fluctuating active stresses

Yann-Edwin Keta\* and Silke Henkes\*

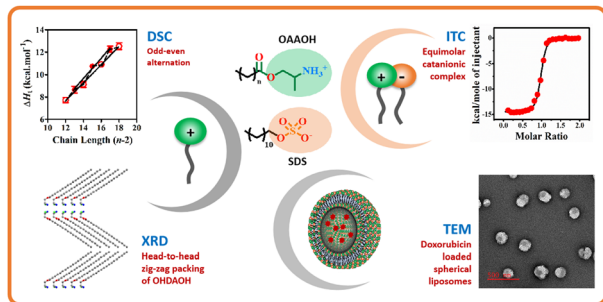
5720



### Topological transformations of isotropic droplets with breakup and formation of topological defects in a confined nematic geometry

P. V. Dolganov,\* N. A. Spiridenko and V. K. Dolganov

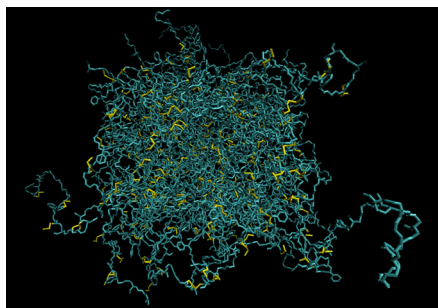
5728



### Synthesis and characterization of long chain O-acyl-L-alaninols and investigation of drug encapsulation and release by equimolar O-myristoyl-L-alaninol/SDS catanionic liposomes

Suman Kumar Choudhury, Ravindar Chinapaka, Konga Manasa and Musti J. Swamy\*

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### Elastic, viscoelastic, dynamic, topological and structural properties of crosslinked SBR through atomistic molecular dynamics simulations

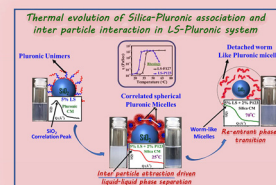
Spyros V. Kallivokas,\* Anthony Chazirakis, Rohit Ghanta, Anastassia Rissanou, Patrycja Polińska, Craig Burkhardt, Manolis Doxastakis and Vagelis Harmandaris\*



5752

### Association of Pluronics at silica surfaces and accompanying evolutions of inter particle interactions in conjugate nano-suspensions

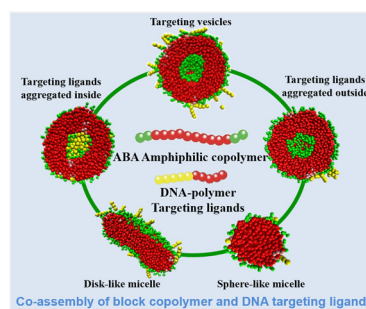
Sugam Kumar, Rajib Ganguly,\* Dirk Honecker and Vinod K. Aswal



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### Co-assembly of amphiphilic triblock copolymers with DNA-polymer targeting ligands in solution

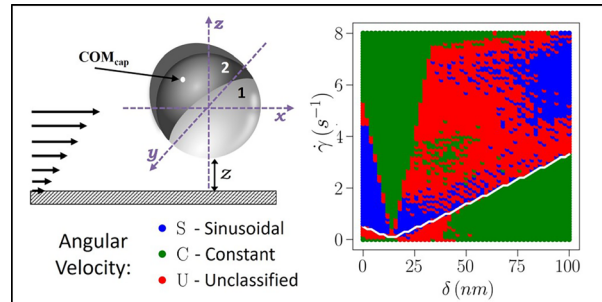
Junwei Zhou, Menghan Zou, Xiandeng Qiu and Rong Wang\*



5773

### Dynamics of a bottom-heavy Janus particle near a wall under shear flow

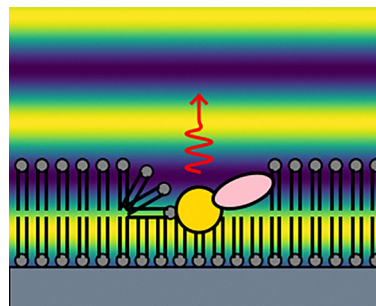
Zohreh Jalilvand, Daniele Notarmuzi,\* Ubaldo M. Córdova-Figueroa, Emanuela Bianchi and Ilona Kretzschmar\*



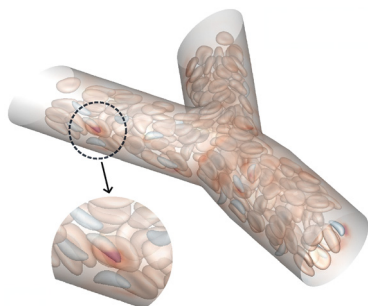
5785

### X-ray fluorescence standing wave study of the interaction of the antimicrobial peptide indolicidin with a supported model membrane

Gobind Basnet, Jonathan Maloney, Jyotsana Lal, Elizabeth Gaillard, Denis T. Keane, Evguenia A. Karapetrova, Raymond Conley and Laurence Lurio\*



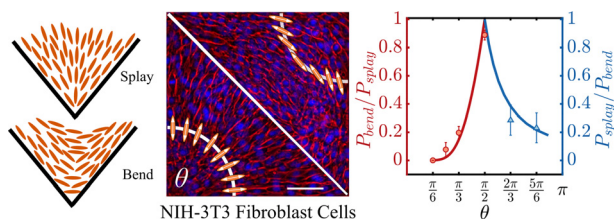
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### Red blood cell partitioning and segregation through vascular bifurcations in a model of sickle cell disease

Xiaopo Cheng, Christina Caruso, Wilbur A. Lam and Michael D. Graham\*

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### Splay and bend deformations in cells near corners

Aniruddh Murali, Praseon Awasthi, Kirsten Endresen, Arkadiusz Goszczak and Francesca Serra\*

