

Soft Matter

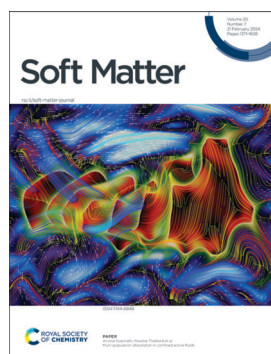
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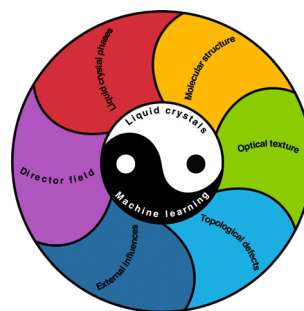
See Arvind Gopinath, Maxime Theillard *et al.*, pp. 1392–1409. Image reproduced by permission of Cayce Fyelling and Andrew Standriff from *Soft Matter*, 2024, **20**, 1392. Image credit: Cayce Fyelling and A. T. Standriff

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Machine learning methods for liquid crystal research: phases, textures, defects and physical properties

Anastasiia Piven, Darina Darmoroz, Ekaterina Skorb and Tetiana Orlova*

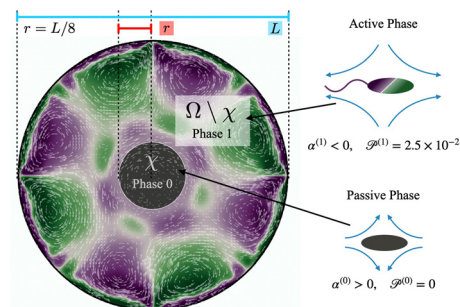


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Multi-population dissolution in confined active fluids

Cayce Fyelling, Joshua Tamayo, Arvind Gopinath* and Maxime Theillard*



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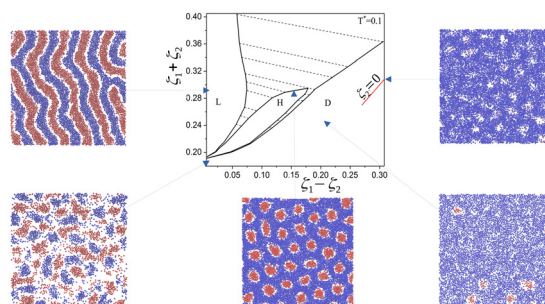


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Spontaneous pattern formation in monolayers of binary mixtures with competing interactions

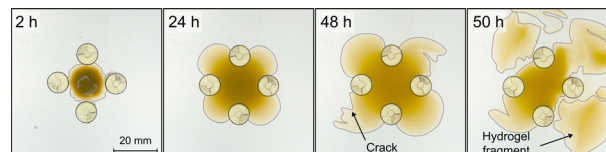
O. Patsahan, A. Meyra and A. Ciach*



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Obstructed swelling and fracture of hydrogels

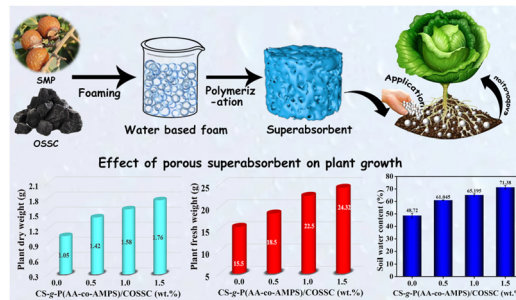
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Porous superabsorbent composites prepared from aqueous foam template and application evaluation

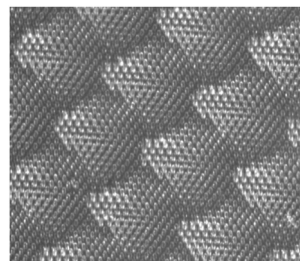
Yan Liu, Fangzhi Duan, Yongfeng Zhu,* Xicun Wang, Li Zong and Aiqin Wang*



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Sliding friction of a pillar array interface: part I

Jasreen Kaur, Xuemei Xiao, Constantine Khripin, Chung-Yuen Hui* and Anand Jagota*



Sliding of Pillar-Pillar Interface



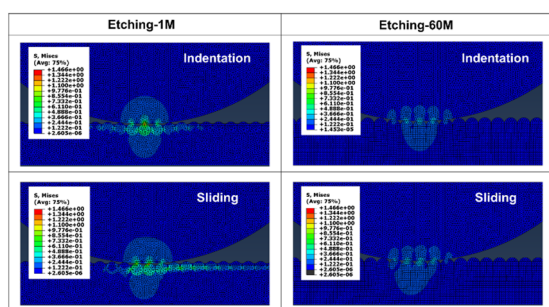
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Sliding friction of a pillar array interface: part II, contact mechanics of single pillar pairs

Xuemei Xiao, Jasreen Kaur, Bangguo Zhu, Anand Jagota* and Chung-Yuen Hui*

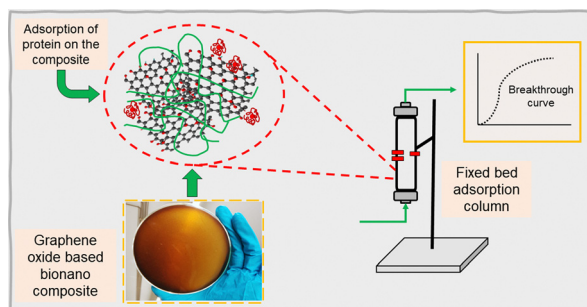
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Effects of the etching process on the surface, friction and wear characteristics of silicone rubber coated with micro-sized ceramic particles

Sung-Jun Lee and Chang-Lae Kim*

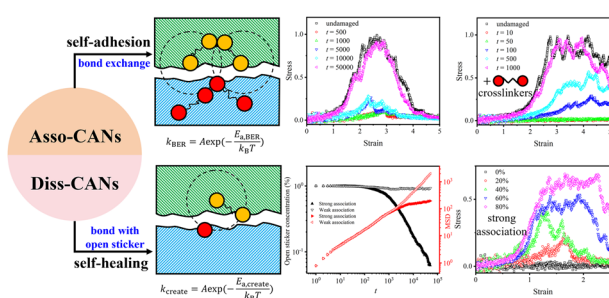
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Separation of the heme protein cytochrome C using a 3D structured graphene oxide bionanocomposite as an adsorbent

Caroline Maria Bezerra de Araujo,*
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Alexandre Filipe Porfirio Ferreira,
Maurício Alves da Motta Sobrinho and
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Understanding the application of covalent adaptable networks in self-repair materials based on molecular simulation

Xiang Cui, Lu Zhang, Yuliang Yang and Ping Tang*

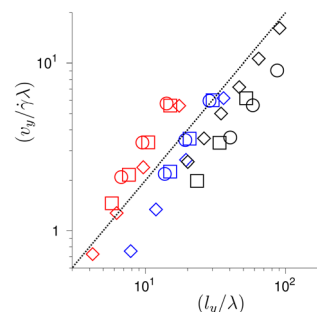


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Defect interactions in a two-dimensional sheared lamellar mesophase

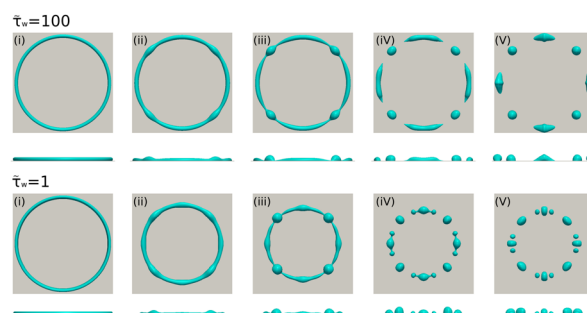
A. Pal, S. J. Jaju and V. Kumaran*



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Evolution dynamics of thin liquid structures investigated using a phase-field model

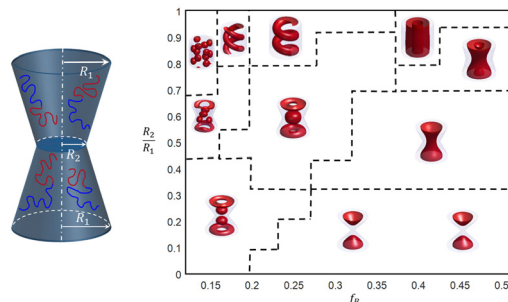
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Confinement-induced self-assembly of a diblock copolymer within a non-uniform cylindrical nanopore

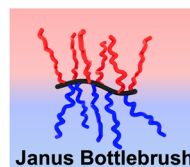
Jagat Singh, Supriya Gupta and Paresh Chokshi*



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Janus bottlebrush compatibilizers

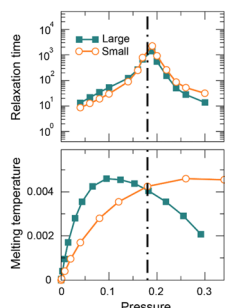
Zhan Chen, Hong-Gyu Seong, Mingqiu Hu, Xuchen Gan, Alexander E. Ribbe, Jaechul Ju, Hanyu Wang, Mathieu Doucet, Todd Emrick* and Thomas P. Russell*



- **Higher binding energy**
Multiple blocks attached to one molecule
- **Lower configurational entropy penalty**
Blocks orient in opposite direction
- **Tailored architectural parameters**
Backbone DP (N_{BB}); grafting density (GD)



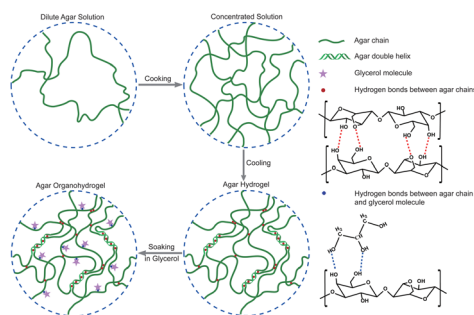
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Understanding the glassy dynamics from melting temperatures in binary glass-forming liquids

Yunhuan Nie, Lijin Wang,* Pengfei Guan* and Ning Xu*

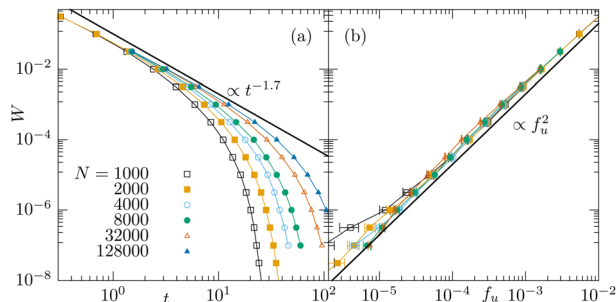
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Strong and tough polysaccharide organohydrogels for strain, humidity and temperature sensors

Lina Ye, Ruichen Yang, Xinxin Yu, Xingyue Sun* and Haiyi Liang*

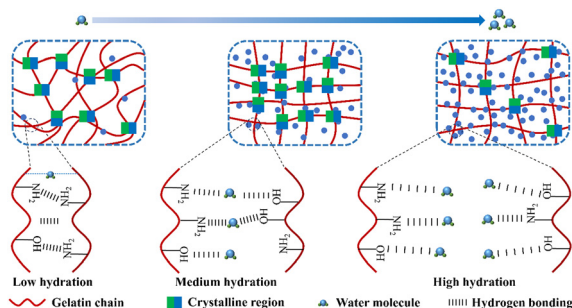
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Instantaneous normal modes of glass-forming liquids during the athermal relaxation process of the steepest descent algorithm

Masanari Shimada,* Kumpei Shiraishi, Hideyuki Mizuno and Atsushi Ikeda

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Water state, thermal transition behavior and structure of hydrated gelatin films

Runpeng Liu, Congde Qiao,* Qinze Liu, Jinshui Yao and Jing Xu

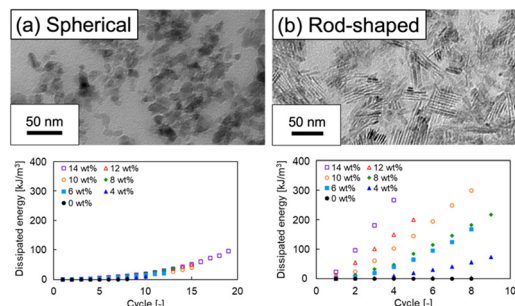


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Controlled mechanical properties of poly(ionic liquid)-based hydrophobic ion gels by the introduction of alumina nanoparticles with different shapes

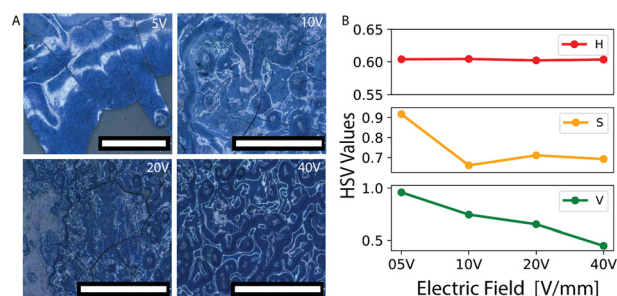
Yuna Mizutani, Takaichi Watanabe,* Carlos G. Lopez and Tsutomu Ono



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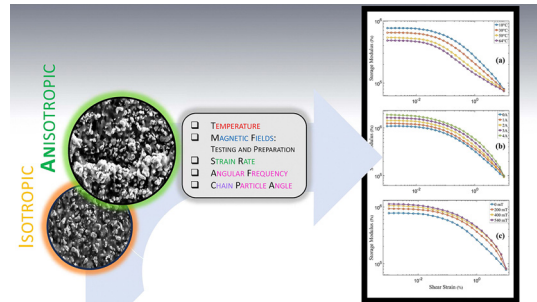
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Experimental characterization and fractional modelling of anisotropic magnetorheological elastomers under the influence of temperature and magnetic fields

Mohammad Hossein Izadifard, Mahmood Norouzi,* Mojtaba Ghatee, Mohammad Bagher Nazari and Amirmasoud Alimardan



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Modeling photo-generated charge extraction in bulk heterojunction nanoparticles

Nigel Clarke and Gavin A. Buxton

