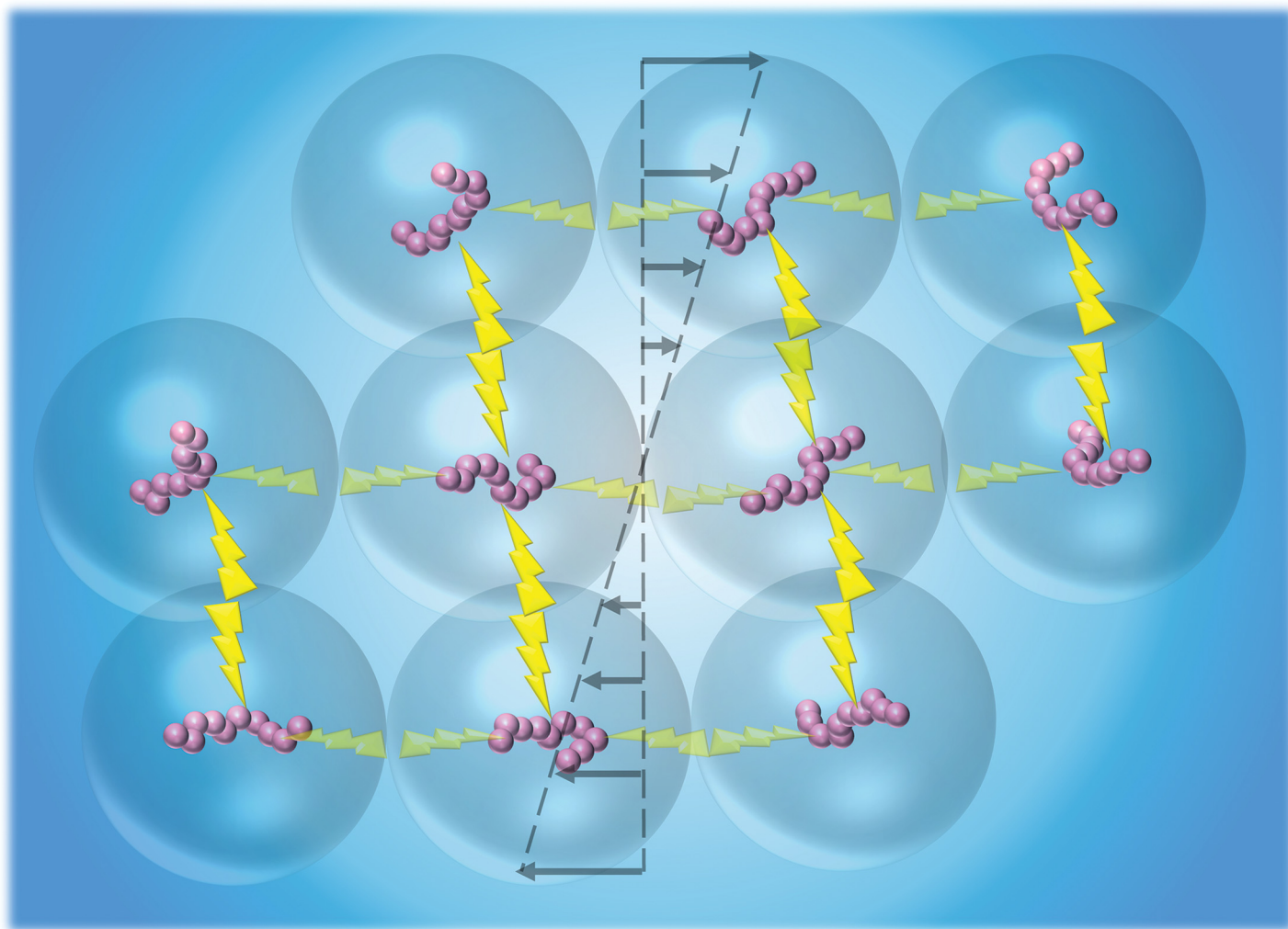




Showcasing research from Professor Jiang Zhao's laboratory, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China.

Response of a polyelectrolyte under oscillatory shear of low frequency

Departure of counterions of polyelectrolytes is discovered to depend on strain and frequency of the oscillatory shear applied to the solution, increasing the effective charges of the main chains, as a result of the distortion of the “cage-like” structure formed by multiple chains. The discovery indicates that the shear-induced alternation of the dynamical network inside the solution is essential to the physical mechanism of rheological properties of polyelectrolyte solutions.

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As featured in:



See Jiang Zhao *et al.*,
Soft Matter, 2025, **21**, 5014.