

Modeling complex fluids

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Modeling complex fluids is becoming increasingly important from scientific research to technology development. In our group, we developed theoretical models to describe thermodynamic properties of chain and/or charged complex fluids in a wide temperature and pressure range, and the developed models were further combined with different theories to represent kinetic properties. The models were also extended to confined fluids. Currently, all these models were combined with machine learning to develop hybrid models to improve the model accuracy and prediction capacity.