



## Liquid Crystals and Other Partially Disordered Molecular Systems

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### Message from the Guest Editor

Liquid crystals are materials that possess both the characteristics of liquids and solids due to their partially ordered molecular structure. The molecules in liquid crystals exhibit some degree of alignment while maintaining a certain level of disorder. This unique arrangement gives rise to intriguing physical properties that differ from ordinary liquids or solids.

Liquid crystals have diverse physical properties that make them suitable for various applications. One of their most well-known applications is liquid crystal displays (LCDs), which utilize the optical properties of liquid crystals to produce visual representations. The alignment of liquid crystal molecules can be controlled by applying electric fields, allowing for the manipulation of light transmission through the display.

In addition to liquid crystals, there are other molecular systems that exhibit partial disorder, such as liquid crystal polymers, block copolymers, and colloidal suspensions. These partially disordered materials have attracted attention due to their potential for achieving desired properties through manipulation of molecular arrangement.





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