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Liquid Crystals XXII. Editor(s): lam Choon Khoo. For the purchase of this volume in printed format, please visit Proceedings.com.Â
Liquid crystals (LCs) have been suggested to have a place in biological sensing for detection and quantitation of biomolecules. Through many years, texture observation has long been the core technique in LC-based bioassays. Proceedings Volume 10735, Liquid Crystals XXII; 1073512 (2018) <https://doi.org/10.1117/12.2323487> Event: SPIE Organic Photonics + Electronics, 2018, San Diego, California, United States. Article. Figures & tables.Â
Liquid crystal phase boundaries play an important role in self-assembly processes defining nanostructured complex fluid systems. Liquid crystals (LCs) are highly structured liquids, with orientational (nematic, cholesteric) and positional (smectic) order of constituent molecules (see figure). The type of molecular order is controlled by shape and chirality of LC molecules, with over a hundred known LC phases. Because LCs are liquids, their molecular order is sensitive to environment, e.g. temperature, electric and magnetic fields, or adsorption of chemicals.