



## Dynamic Properties of Ferroelectric Liquid Crystals

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Deadline for manuscript submissions:

**31 May 2024**

### Message from the Guest Editor

Ferroelectric Liquid Crystals (FLCs) are a unique example of ferroelectricity in liquid subphases. The existence of spontaneous polarization in such systems leads to new dynamic and switching properties due to the linear interaction with electric fields. Ferroelectricity was initially predicted and observed in chiral-tilted smectic phase SmC\* almost half century ago, when dynamic behaviour was infrequently studied using number of experimental techniques, including electro-optic and dielectric spectroscopy. Since then, ferroelectricity has been exclusively attributed to molecular chirality. However, relatively recently, ferroelectricity was observed in non-chiral LC systems such as bent-core smectic and even nematic phases. Some of these phases show giant permittivity in the order of  $\sim 10000$ , which is governed by molecular dynamics, opening a new area of FLC application as hyper-paraelectric media for supercapacitors.

In this Special Issue, we will publish recent advances and developments in the dynamic properties of FLCs, including traditional chiral and novel non-chiral LCs.





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