



Anomalous Diffusion and Relaxations in Liquid Crystals: Fractal and Fractional Behavior

Guest Editors:

Prof. Dr. Rafael Soares Zola

Departamento de Física,
Universidade Tecnológica
Federal do Paraná, Campus de
Apucarana, Apucarana 86812-
460, PR, Brazil

Prof. Dr. Ervin K. Lenzi

Departamento de Física,
Universidade Estadual de Ponta
Grossa, Ponta Grossa 84030-900,
PR, Brazil

Deadline for manuscript
submissions:

15 June 2024

Message from the Guest Editors

This Special Issue is dedicated to delving into the anomalous diffusion and relaxation processes within liquid crystal materials. This expansive and captivating topic lies at the core of cutting-edge applications of liquid crystals, including the development of molecular motors and responsiveness to external stimuli. Contributors are warmly welcomed to explore anomalous behaviors in liquid crystals stemming from factors such as doping, geometric confinement, active dopants, external stimuli, defect coarsening, and more. Submissions are encouraged on a broad spectrum of topics, including (but not limited to):

Diffusion through modulated and non-modulated liquid crystal media;

Coarsening defect dynamics;

Fractal aspects of liquid crystal phases;

Polymer growth and anomalous relaxation of polymer-stabilized phases;

Anomalous shear-induced dynamics;

Anomalous response time;

Anomalous viscoelasticity and scaling;

Applications of anomalous behavior in liquid crystals;

Fractal and fractional modeling of liquid crystals.

