



“Gheorghe Asachi” Technical University of Iasi, Romania



DIELECTRIC PROPERTIES OF SOME BENT CORE LIQUID CRYSTALS

**Irina Carlescu^{1*}, Aurel Simion¹, Adrian Bele², Petru Marian Carlescu³,
Cristina Maria Herghiligiu¹, Dan Scutaru¹**

¹*“Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, 73 Prof. dr.docent Dimitrie Mangeron Street, 700050 Iasi, Romania*

²*Institute of Macromolecular Chemistry “Petru Poni” Iasi, Grigore Ghica Vodă Street, 41A, 700487 Iasi, Romania*

³*“Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iasi, Faculty of Agriculture, 3 Mihail Sadoveanu Alley, 700490 Iasi, Romania*

Abstract

Dielectric measurements were carried out on a series of bent-core liquid crystals based on resorcinol and 2, 7-dihydroxynaphthalene cores and presenting B mesophase in between 30-160°C. The dielectric constants in the liquid crystalline phase were measured as a function of frequency and temperature. The dielectric relaxation of bent-core compounds has been analyzed by dielectric constants/frequency curves. The variation of the dielectric strength with temperature has been determined as well. The frequency dependence of dielectric loss has also been analyzed by means of frequency exponent.

Key words: bent-core liquid crystals, dielectric spectroscopy, molecular reorientation

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* Author to whom all correspondence should be addressed: e-mail: icarlescu@ch.tuiasi.ro