

LISTA DE LUCRARI PUBLICATE IN ULTIMII 10 ANI

Profesor Ionescu Anca-Luiza

A. TEZA DE DOCTORAT

Denumirea tezei, Domeniul tezei, Institutia la care a fost obtinuta, Anul
Proprietati de suprafata ale cristalelor lichide nematice
Domeniul: Fizica, Universitatea din Bucuresti, martie 1995

B. ARTICOLE și COMUNICARI

Ba. Articole publicate în reviste de specialitate

- Ba1.** A.Th.Ionescu, E.Barna, G.Barbero, A.L.Alexe-Ionescu, *Statistical theory of the compensating effect when anchoring with two orthogonal photoaligned polymers*, Phys. Rev. E, 65, 041710, 1-10, (2002).
- Ba2.** A.L.Alexe-Ionescu, G.Barbero, I.Lelidis, *Periodic deformations in nematic liquid crystals*, Phys. Rev.E,66, 061705, 1-10, (2002).
- Ba3.** A.L. Alexe-Ionescu, A.Th. Ionescu, E.S. Barna, N. Scaramuzza, G. Strangi, *Role of Surface Order on the Total Electric Conduction in NLC Samples*, Phys.Chem.B, 107, 5487-5490 (2003).
- Ba4.** A.L.Alexe-Ionescu, G. Barbero, A.Th.Ionescu, E.S.Barna, *Influence of an elastic deformation on the scalar nematic order parameter*, Phys.Lett. A, 314, 332-338 (2003);
- Ba5.** A.L.Alexe-Ionescu, A.Th.Ionescu, E.S.Barna, V.Barna, N.Scaramuzza, *Fast electro-optic switching in nematic liquid crystals*, Appl.Phys.Lett., 87, 40-42 (2004);
- Ba6.** A.L. Alexe-Ionescu, A. Th. Ionescu, E. Barna, V. Barna, N. Scaramuzza, *Role of Delocalized Electrons in Polyaniline–Nematogen Cyanobiphenyls Interaction*, J.Phys.Chem.B, 108, 5487-5490 (2004);
- Ba7.** A.L. Alexe-Ionescu, N. Eseau, C. Dascalu, A.Th. Ionescu, I. Palarie, C. Uncheselu, *A percolation Model to Evaluate the Correlation Length of Dye-Nematic Liquid Crystal Interaction*, Mol.Cryst.Liq.Cryst. 437, 1403-1412 (2005);
- Ba8.** G. Barbero, A.L. Alexe-Ionescu, *Role of diffuse layer of the ionic charge on the impedance spectroscopy of a cell of liquid*, Liq.Cryst., 32, 943-949 (2005);
- Ba9.** A.L. Alexe-Ionescu, G. Barbero, *Comment on 'Local elastic stability for nematic liquid crystals'*, Phys.Rev.E, 72, 013702 (2005);
- Ba10.** G. Barbero, A.L. Alexe-Ionescu, I. Lelidis, *Significance of small voltage in impedance spectroscopy measurements on electrolytic cells*, J.Appl.Phys., 98, 113703 (2005)
- Ba11.** G.Barbero, F.Freire,M.Scalerandi, A.L.Alexe-Ionescu, *Role of adsorption phenomenon on the ionic equilibrium distribution and on the transient effects in electrolytic cells*, J. Phys. Chem. B, 110, 17889-17897 (2006)
- Ba12.** A.L.Alexe-Ionescu, G.Barbero, F.Freire, M.Scalerandi, *Transient effects in electrolytic cells submitted to an external field*, Liquid Crystals 33, 10, 1177-1187 (2006)
- Ba13.** F.Freire, A.L.Alexe-Ionescu, M.Scalerandi, G.Barbero, *Voltage decay time of a liquid crystal cell submitted to a large difference of potential*, Appl.Phys.Letts 89, 1(2006)
- Ba14.** A.L.Alexe-Ionescu, C.Uncheselu, L.Luchetti, G.Barbero, *Phenomenological model for the optically induced easy direction*, Phys. Rev.E, 75, 021701 (2007)

- Ba15.** A.L.Alexe-Ionescu, G.Barbero, I.Lelidis, M.Scalerandi, *Relaxation times of an electrolytic cell subject to an external electric field: role of ambipolar and free diffusion phenomena*, J.Phys.Chem.B, 111, 13287-13293 (2007);
- Ba16.** A.L.Alexe-Ionescu, G.Barbero, L.Komitov, *Anchoring of liquid crystals on a thin polymeric film*, Phys.Rev.E, **77**, 051701 (2008);
- Ba17.** F.C.Freire, G.Barbero, M.Scalerandi, A.L.Alexe-Ionescu, *The Role of an Insulating Surface Layer on the Relaxation Time of the Ionic Redistribution in an Electrolytic Cell*, Mol.Cryst.Liq.Cryst.480, 93 (2008);
- Ba18.** R. Atasiei, A.L.Alexe-Ionescu, C.Dascalu, J.C.Dias, R.Teixera de Souza, *Reorientation effect on the current-voltage characteristics of a nematic cell*, Phys. Lett. A, 372, 6116 (2008);
- Ba19.** C.Dascalu, C.Uncheselu, N.Eseanu, A.L.Alexe-Ionescu, *Dye adsorption alteration of anchoring properties of planar orienting films*, JOAM, 10, 363-368 (2008);
- Ba20.** R. Atasiei, A.L.Alexe-Ionescu, J.C.Dias, L.R.Evangelista, G.Barbero, *Current measurements across a nematic cell submitted to an external voltage and its equivalent circuit*, Chem.Phys.Letts, 461, 164-169 (2008);
- Ba21.** R. Atasiei, C.Dascalu, N.Eseanu, M.Raicopol, A.L.Alexe-Ionescu, *Ionic contribution to nematic liquid crystal-conducting polymer interface phenomena*, UPB Sci.Bull., Series A, 70, 83-89 (2008);
- Ba22.** A.L.Alexe-Ionescu, G.Barbero, R.Merletti, *Electrode potential and selective ionic adsorption*, Phys. Lett. A, 373, 1791-1795 (2009).
- Ba23.** A.L.Alexe-Ionescu, G.Barbero, F.Ciuchi, A.Mazzulla, N.Scaramuzza, *Surface treatment and bulk density of ions in nematic liquid crystals*, J.Appl.Phys, 106, 044508 (2009).
- Ba24.** A. L. Alexe-Ionescu, G.Barbero, I.Lelidis, *Dielectric constant of a nematic liquid crystal containing two types of ions: limit of validity of superposition principle*, J. Phys. Chem. B, 113, 14747-14753 (2009).
- Ba25.** A.L.Alexe-Ionescu, G.Barbero, L.Komitov, *Surface energy of a nematic liquid crystal in contact with structured surfaces* Phys.Rev.E, 80, 021701 (2009).
- Ba26.** A.L.Alexe-Ionescu, G.Barbero, C.Dascalu, M.Scalerandi *Electrical behaviour of nematic cells oriented by polypyrrole surface treatment*, Appl.Phys.Letts 95, 064101 (2009)
- Ba27.** A. L. Alexe-Ionescu, G.Barbero, I.Lelidis *Models for ionic contribution to the complex dielectric constant of nematic liquid crystals*, Phys.Rev.E, 80, 061203 (2009).
- Ba28.** A.Th.Ionescu, A.L.Alexe-Ionescu, S.Marino, M.Castriota, G.Strangi, G.Nicastro, N.Scaramuzza, *Anomalous conductivity in PZT thin film deposited on copper substrate electrode*, Philosophical Magazine, 90, 1733 (2010).
- Ba29.** S.Marino, A.Th.Ionescu, A.L.Alexe-Ionescu, G.Nicastro, G.Strangi, N.Scaramuzza, *Statistical analyses of repolarization current of a PZT film deposited on ITO electrode with different thermal treatments*, Philosophical Magazine, 90, 1575 (2010).
- Ba30.** G.Nicastro, N.Scaramuzza, R.Bartolino, A.L.Alexe-Ionescu, A.Th.Ionescu, *Mechanisms leading to the fast relaxation of liquid crystal cells aligned with conductive polymers*, J.Appl.Phys. 108, 073519 (2010)
- Ba31.** A.L.Alexe-Ionescu, G.Barbero, F.C.M.Freire, R.Merletti, *Effect of composition on the dielectric properties of hydrogels for biomedical applications*, Physiological Measurement, 31, S169 (2010).

- Ba32.** A.L.Alexe-Ionescu, R. Atasiei, C. Dascalu, F.C.M.Freire, G.Barbero, *Electric response of a cell of hydrogel: role of the electrodes*, Appl.Phys.Lett, 98, 064101 (2011).
- Ba33.** F.C.M.Freire, C. Dascalu, R. Atasiei, A.L.Alexe-Ionescu G.Barbero, *Effect of viscosity on the electric response of a hydrosolution*, Appl.Phys.Lett. 99, 014101 (2011).
- Ba34.** A.L.Alexe-Ionescu, G.Barbero, S.Bianco, G.Cicero, E.Tresso, *Small-signal ac response of an electrolytic cell with recombining space charge*, Phys.Lett.A, 375, 4225-4232 (2011).
- Ba35.** A.L.Alexe-Ionescu, G.Barbero, C.F.Pirri, E.Tresso, *Influence of the dye impregnation time on the electrical impedance of a solar cell*, J.Appl.Phys.112, 024106 (2012)
- Ba36.** A.Sacco, A.Lamberti, M.Quaglio, S.Bianco, E.Tresso, A.L.Alexe-Ionescu, C.F.Pirri, *Electric characterisation and modeling of microfluidic-based dye-sensitised solar cell*, International Journal of Photoenergy, Vol.2012, 216780 (2012).
- Ba37.** A.L.Alexe-Ionescu, G.Barbero, S.Bianco, G.Cicero, C.F.Pirri, *Electrical response of electroytic cells limited by different types of electrodes*, J.Electroanalytical Chemistry 669, 21-27 (2012).
- Ba38.** A.L.Alexe-Ionescu, G.Barbero, C.Meyer, *Influence of the rheological properties on the electrical impedance of hydrogels*, J.Appl.Phys.111, 014905 (2012).

C. CARTI

C1. A.Th.Ionescu, A.L.Ionescu

Interactii si Sisteme Moleculare , Editura Universitatii din Bucuresti, 2006, ISBN 973-575-453-3

C2. C.Dascalu, A.L.Ionescu

Fenomene electromagnetice si cuantice Editura Printech, Bucuresti, 2009, ISBN 978-606-521-430-9

D. CULEGERI SI INDRUMARE

E. BREVETE DE INVENTII SI INOVATII

E1. R.Bartolino, R.Barberi, A.L.Alexe-Ionescu, M.Giocondo, M.Iovane, J.J.Bonvent, M.Schadt

"Cellule comprenant une plaque a ancrage controle pour cristaux liquides nematiques et precede de realisation d'une telle plaque"

Patent No.PCT/Fr98/00878

E2. N.Scaramuzza, A.L.Alexe-Ionescu, A.Th.Ionescu, E.Barna, V.Barna

"Dispositivo di visualizzazione a cristalli liquidi nematici"

Patent No.TO2003A000490

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