

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: Științe Aplicate

Departamentul: Fizica

Nume Prenume: Cîrtoaje Cristina

Gradul didactic: Conferențiar

## L I S T A

### lucrărilor științifice în domeniul disciplinelor din postul didactic

#### A. Teza de doctorat

Fenomene induse de campuri externe (electrice, magnetice și electromagnetice) în cristale lichide nematice și colesterice cu adaosuri de nanotuburi de carbon și feroparticule

#### B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. Petrescu Emil, Cristina Cîrtoaje Fizica clasică Politehnica Press 2023 978-606-9608-47-0
2. Petrescu Emil, Cristina Cîrtoaje Fizica moderna Politehnica Press 2023 978-606-9608-50-0
3. Gabriela Iacobescu, **Cristina Cîrtoaje**, Emil Petrescu, Introducere în biofizică, Editura Universitaria Craiova ISBN: 976-606-140-288-5, Craiova, 2011
4. **Cristina Cirtoaje**, Emil Petrescu Probleme rezolvate de fizică clasică, Editura Politehnica Press ISBN: 978-606-515-332-5, București, 2011
5. Emil Petrescu, **Cristina Cirtoaje** Radiatii ionizante și elemente de dozimetrie Editura Politehnica Press ISBN: 978-606-515-656-2, București, 2016
6. Emil Petrescu, **Cristina Cirtoaje** Elemente de termodinamica și Fizica Statistica Editura Politehnica Press ISBN: 978-606-515-657-9, București, 2016

#### C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

##### Autori/Articol/Revistă

- C1. Antibacterial Interactions of Ethanol-Dispersed Multiwalled Carbon Nanotubes with Staphylococcus aureus and Pseudomonas aeruginosa, Asaftei, M (Asaftei, Mihaela) Lucidi, M (Lucidi, Massimiliano); Anton, SR ; Trompeta, AF ; Hristu, R ; Tranca, DE; Fiorentis, E; Cirtoaje, C (Cirtoaje, Cristina) [1] ; Lazar, V; Stanciu, GA; Cincotti, G; Ayala, P; Charitidis, CA; Holban, A; Visca, P; Stanciu, SG, ACS OMEGA, Volume9Issue31Page33751-33764, DOI10.1021/acsomega.4c03044
- C2. EFFECT OF MWCNT DOPING ON THE T NI TRANSITION TEMPERATURES AND EMISSION BEHAVIOR OF A NONMESOGENIC LUMINESCENT PLATINUM(II) COMPLEX IN NEMATIC

- LIQUID CRYSTAL 5CB Neaga, B; Ilis, M; ; Cirtoaje, C ; Danila, O ; Manaila-Maximean, D Cîrcu, V, 2024, UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS 86 (2) , pp.153-166
- C3. OPTICAL PROPERTIES OF NEMATIC LIQUID CRYSTALS WITH MULTIWALL CARBON NANOTUBES  
Petrescu, E; Cirtoaje, C and Saporov, B, 2024 UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS 86 (2) , pp.137-146
- C4. Fighting bacterial pathogens with carbon nanotubes: focused review of recent progress Asaftei, M; Lucidi, M; Cirtoaje, C; Holban, AM; Charitidis, CA; Yang, F; Wu, AG; Stanciu, GA; Saglam, O; Lazar, V] ; Visca, Stanciu, SG (12 autori) RSC ADVANCES, Volume13Issue29Page19682-19694, DOI10.1039/d3ra01745a
- C5. Petrescu, Emil; Cirtoaje, Cristina) *Electric Properties of Multiwalled Carbon Nanotubes Dispersed in Liquid Crystals and Their Influence on Freedericksz Transitions*, NANOMATERIALS, Volume12, Issue7, Article Number1119 DOI10.3390/nano12071119, Published APR 2022
- C6. *Freedericksz Transition In Nematic Liquid Crystals With Carbon Nanomaterials*, Petrescu, Emil;Cirtoaje, Cristina ; Postelnicu, Stefan UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS, Volume 84, Issue1, Page201-208, Published2022
- C7. Cirtoaje, Cristina; *Ferroelectric particles in nematic liquid crystals with soft anchoring*, MOLECULES Volume: **26** Issue: **4** Article Number: 1166 Published: FEB 2021
- C8. Cirtoaje, Cristina; Iacobescu, Gabriela; Petrescu, Emil *Freedericksz Transitions in Twisted Ferronematics Subjected to Magnetic and Laser Field* CRYSTALS Volume: **10** Issue: **7** Article Number: 567 Published: JUL 2020
- C9. Cirtoaje, Cristina; Petrescu, Emil *The Influence of Single-Walled Carbon Nanotubes on the Dynamic Properties of Nematic Liquid Crystals in Magnetic Field* MATERIALS Volume: **12** Issue: **24** Article Number: 4031 Published: DEC 2 2019
- C10. Cirtoaje, Cristina; Petrescu, Emil; Stan, Cristina; Andrey Rogachev, *Electric Freedericksz transition in nematic liquid crystals with graphene quantum dot mixture Conference: 12th International Conference on Physics of Advanced Materials (ICPAM)* Location: Heraklion, GREECE Date: SEP 22-28, 2018 APPLIED SURFACE SCIENCE Volume: **487** Pages: **1306-1301** Published: SEP 1 2019
- C11. Cirtoaje, Cristina *New method to detect low tritium concentration in metals* UPB Scientific Buletin Series A, Applied Mathematics and Physics Volume: 81 Issue: 1 Pages: 229-240 WOS:000461794200023 2019
- C12. Emil Petrescu, Cristina Cirtoaje and Octavian Danila *Dynamic behavior of nematic liquid crystal mixtures with quantum dots in electric fields* Beilstein J. Nanotechnol. 2018, 9, 399–406. doi:10.3762/bjnano.9.39 **ISI Web of science**
- C13. Emil Petrescu and Cristina Cirtoaje *Dynamic behavior of a nematic liquid crystal with added carbon nanotubes in an electric field* Beilstein J. Nanotechnol. 2018, 9, 233–241. doi:10.3762/bjnano.9.25 **ISI Web of science**

- C14. Petrescu, C. Cirtoaje, C. Stan *Dynamic behavior of a nematic liquid crystal mixed with CoFe<sub>2</sub>O<sub>4</sub> ferromagnetic nanoparticles in a magnetic field* Beilstein J. Nanotechnol. 2017, 8, 2467–2473. doi:10.3762/bjnano.8.246 **ISI Web of science**
- C15. E. C. Niculescu, C. Stan, D. Bejan, and C. Cartoaje *Impurity and eccentricity effects on the nonlinear optical rectification in a quantum ring under lateral electric fields* JOURNAL OF APPLIED PHYSICS 122, 144301 (2017) **ISI Web of science**
- C16. D.Mănăilă-Maximean, C.Cirtoaje, O.Dănilă, D.Donescu *Novel colloidal system: Magnetite-polymer particles/lyotropic liquid crystal under magnetic field* Journal of Magnetism and Magnetic Materials 336 (2017) 44–48 **ISI Web of science**
- C17. **Cristina Cîrtoaje**, Emil Petrescu *Measurement of magnetic anisotropy of multiwalled carbon nanotubes in nematic host* Physica E 84(2016)244–248 **ISI Web of science**
- C18. **Cristina Cîrtoaje**, Emil Petrescu, CristinaStan, Dorina Creangă *Ferromagnetic nanoparticles suspensions in twisted nematic*, Physica E, 79, pag 38-43, (2016) WOS:000370089900006 DOI: 10.1016/j.physe.2015.12.006 **ISI Web of science**
- C19. Emil Petrescu, Mihaela Antonina Călin, Bogdan Marinescu, **Cristina Cîrtoaje**, *In vivo study of mal-pdt using fluorescence Spectra*, U.P.B. Sci. Bull., Series A, Vol. 77, Iss. 2, 269-274, 2015 WOS:000355574100026 **ISI Web of science**
- C20. Victor Stoian, **Cristina Cîrtoaje**, Emil Petrescu, Cornelia Moțoc, *Optical nonlinearities induced by electric fields in nematic liquid Crystals*, Proc. of SPIE Optics+ Optoelectronics, 9503, 95030T-7 (2015) WOS:000356606800018 DOI: 10.1117/12.2178320 **ISI Web of science**
- C21. **Cristina Cîrtoaje**, Victor Stoian, Emil Petrescu, Cornelia Moțoc, *Relaxation phenomena in nematic liquid crystals with multiwall carbon nanotubes adding*, Proc. of SPIE Microtechnologies, Vol. 9517, 95171G-10 2015 WOS:000357978500043 DOI: 10.1117/12.2178333 **ISI Web of science**
- C22. **Cristina Cîrtoaje**, Emil Petrescu, Victor Stoian, *Electrical Freedericksz transitions in nematic liquid crystals containing ferroelectric nanoparticles*, Physica E: Low-dimensional Systems and Nanostructures, Volume 67, Pages 23-27 (March 2015) WOS:000348266500005 DOI: 10.1016/j.physe.2014.11.004 **ISI Web of science**

**D. Lucrări publicate în ultimii 10 ani în reviste și volume de conferințe cu referenți  
(neindexate)  
- Reviste**

**- Selecție cu maximum 20 lucrări în volume de conferințe**

**D7.**Cristina Ileana Covaliu, Gigel Paraschiv, Biris Sorin Stefan, Cristina Cârtoaje, Ilie Filip, Emil Petrescu Chromium removal from wastewater using carbon nanotubes Proceedings of 4th International Conference on Thermal Equipment, Renewable Energy and Rural Development Posada Vidraru, Romania 4-6 iunie 2015

**E. Brevete obținute în întreaga activitate**

**Data:**

**Semnătura:**

**Data: 03.03.2025**

**Semnătura:**