

UNIVERSITATEA DIN CRAIOVA
 FACULTATEA DE FIZICĂ
 REZULTATELE ACTIVITĂȚII ȘTIINȚIFICE PE PERIOADA 2005—2009

1. LISTA LUCRĂRILOR ȘTIINȚIFICE PUBLICATE ÎN REVISTE DE SPECIALITATE COTATE ISI

Nr. crt.	Anul	AUTORI	TITLUL LUCRĂRII	REVISTĂ (nr., vol., pag.)	ISSN	Factor de impact
1	2005	R. Balescu, I. Petrisor, M. Negrea	Anisotropic electrostatic turbulence and zonal flow generation	Plasma Physics and Controlled Fusion, Vol. 47 (12), 2145-2159	0741-3335	2.902
2	2005	A.Alexe-Ionescu, N. Eseanu, C. Dascalu, A. Th. Ionescu, I. Palarie, C. Uncheselu	A percolation model to evaluate the correlation length of dye-nematic liquid crystal interaction	Molecular Crystals and Liquid Crystals, Vol. 437, pp. 159/[1403]-168/[1412]	1542-1406	0.468
3	2005	I.Palarie, N. Eseanu	Laser field induced azimuthal anchoring gliding in dye doped nematic liquid crystals	International Journal of Modern Physics B, Vol. 19 (28), 4185-4193	0217-9792	0.381
4	2005	I.Palarie, C. Florea	Refractive indices determination of a new nematic liquid crystal	Journal of Optoelectronics and Advanced Materials, Vol. 7 (2), 997-1007	1454-4164	1.138
5	2005	P. Rotaru, S. I. Blejoiu, M. Stanciu, G. Stoenescu, M. Mateescu, V. Voiculescu	The influence of the tabletting pressure upon the textural and diffusional properties of a Fe ₂ O ₃ -Cr ₂ O ₃ catalyst	Microporous and Mesoporous Materials, Vol. 83 (1-3), 159-164	1387-1811	3.355
6	2005	V. Calian, G. Stoenescu, M. Ursache, M. Socaciu, P. Rotaru	Optimization of multiple layer semiconductor waveguides	Thin Solid Films, Vol. 474 (1-2), 197-200	0040-6090	1.569
7	2005	M. Arnautu, M. Stanciu	Study of the energetic heterogeneity of γ -alumina using the adsorption potential distribution	Revue Roumaine de Chimie, Vol. 50 (9-10), 845-849	0035-3930	0.226
8	2005	C. Motoc, G. Iacobescu	The influence of UV irradiation on magneto-optical effects in azo-derivative doped liquid crystals	Journal of Optoelectronics and Advanced Materials, Vol. 7 (6), 3111-3120	1454-4164	1.138

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9	2005	G. Stoenescu, G. Iacobescu	Fast electron irradiation effects on MOS transistor microscopic parameters - Experimental data and theoretical models	Journal of Optoelectronics and Advanced Materials, Vol. 7 (3), 1629-1634	1454-4164	1.138
10	2005	G. Rau, G. Iacobescu, V. Meltzer	A series of new azoderivatives - Synthesis and liquid crystal properties	Revue Roumaine de Chimie, Vol. 50 (2), 119-124	0035-3930	0.226
11	2005	C. Bizdadea, E. M. Cioroianu, A. C. Lungu, S. O. Saliu	No multi-graviton theories in the presence of a Dirac field	Journal of High Energy Physics, Vol. 2, 343-380	1126-6708	5.944
12	2005	C. Bizdadea, E. M. Cioroianu, S. O Saliu, S. C., Sararu.	Couplings of a collection of BF models to matter theories	European Physical Journal C, Vol. 41 (3), 401-420	1434-6044	3.209
13	2005	E. M. Cioroianu, S. C Sararu	Self-interactions in a topological BF-type model in D = 5	Journal of High Energy Physics, Vol. 7, 1377-1440	1126-6708	5.944
14	2005	T. Gans, M. Osiac, D. O'Connell, V. A. Kadetov, U Czarnetzki, T. Schwarz-Selinger, H. Halfmann, P. Awakowicz	Characterization of stationary and pulsed inductively coupled RF discharges for plasma sterilization	Plasma Physics and Controlled Fusion, Vol. 47 (5 A), A353-A360	0741-3335	2.902
15	2005	D. Constantinescu, R. Constantinescu	Transport Barriers and Diffusion Phenomena for the Magnetic Field Lines in Tokamak	Physica Scripta, Vol. T118, 244-250	0031-8949	1.240
16	2005	V. Calian, G. Stoenescu	Integrable hierarchies from BRST cohomology	Modern Physics Letters A, Vol. 20 (1), 51-59	0217-7323	1.251
17	2006	C. Bizdadea, E. M. Cioroianu, S. C. Sararu	Couplings between a collection of BF models and a set of three-form gauge fields	International Journal of Modern Physics A, Vol. 21 (31), 6477-6490	0217-751X	0.914
18	2006	C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu	On the generalized Freedman-Townsend model	Journal of High Energy Physics 2006 (10), art. no. 004	1126-6708	5.393
19	2006	C. Bizdadea, E. M. Cioroianu, D. Cornea, S. O. Saliu, S. C. Sararu	No interactions for a collection of spin-two fields intermediated by a massive Rarita-Schwinger field	European Physical Journal C, Vol. 48 (1), 265-289	1434-6044	3.251

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20	2006	C. Bizdadea, C. C. Ciobirca, I. Negru, S. O. Saliu	Couplings between a single massless tensor field with the mixed symmetry (3,1) and one vector field	Physical Review D, Vol. 74 (4), art. no. 045031	1550-7998	4.896
21	2006	C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu	Interactions between a massless tensor field with the mixed symmetry of the Riemann tensor and a massless vector field	Journal of Physics A: Mathematical and General, Vol. 39 (33), 10549-10564	0305-4470	1.577
22	2006	C. Bizdadea, E. M. Cioroianu, A. C. Lungu	No interactions for a collection of Weyl gravitons intermediated by a scalar field	International Journal of Modern Physics A, Vol. 21 (19-20), 4083-4126	0217-751X	0.941
23	2006	C. Bizdadea, E. M. Cioroianu, A. C. Lungu, S. C. Sararu	No cross-interactions between the Weyl graviton and the massless Rarita-Schwinger field	Annalen der Physik, Vol. 15 (6), 416-433	0003-3804	1.431
24	2006	E. M. Cioroianu, S. C. Sararu	PT-symmetry breaking Hamiltonian interactions in BF models	International Journal of Modern Physics A, Vol. 21 (12), 2573-2599	0217-751X	0.914
25	2006	C. Motoc, G. Iacobescu	Magnetic field effects on the optical properties of an azo-dye doped liquid crystal	Journal of Magnetism and Magnetic Materials, Vol. 306 (1), 103-107	0304-8853	1.212
26	2006	C. Motoc, G. Iacobescu	Magneto-optic effects in nematic liquid crystal doped with azo-dyes	Modern Physics Letters B, Vol. 20 (17), 1015-1022	0217-9849	0.569
27	2006	C. Rosu, G. Iacobescu, C. Motoc, C. Topala	Thermally stimulated depolarization currents in a new cholesteric liquid crystal	Modern Physics Letters B, Vol. 20 (13), 777-785	0217-9849	0.569
28	2006	C. Motoc, G. Iacobescu	Birefringence of azo-dye doped nematic liquid crystals	Journal of Optoelectronics and Advanced Materials, Vol. 8 (1), 295-298	1454-4164	1.106

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29	2006	N. Iutes-Petrescu, G. Iacobescu, M. Damian, T. Iutes-Petrescu	Implicarea reologiei in cunoasterea structurii produselor care contin hidrocarburi cu masa moleculara mare	Revista de Chimie, Vol. 57 (1), 91-95	0034-7752	0.287
30	2006	R. Constantinescu, C. Ionescu	Multidifferential complexes and their application to gauge theories	International Journal of Modern Physics A, Vol. 21 (32), 6629-6640	0217-751X	0.914
31	2006	R. Constantinescu, C. Ionescu	From the Hamiltonian to the Lagrangean formalism for 1-reducible theories. The Freedman-Townsend model	Central European Journal of Physics, Vol. 4 (4), 511-521	1644-3608	0.811
32	2006	R. Cimpoiasu, R. Constantinescu	Lie symmetries for hamiltonian systems. Methodological approach	International Journal of Theoretical Physics, Vol. 45 (9), 1785-1798	0020-7748	0.389
33	2006	R. Cimpoiasu, R. Constantinescu	Symmetries and invariants for the 2D-Ricci flow model	Journal of Nonlinear Mathematical Physics, Vol. 13 (2), 285-292	1402-9251	0.387
34	2006	R. Constantinescu, C. Ionescu	The equivalence between the lagrangian and the hamiltonian formalisms for the extended BRST symmetry	International Journal of Modern Physics A, Vol. 21 (7), 1567-1575	0217-751X	0.914
35	2006	R. Constantinescu, C. Ionescu	Gauge fixing procedure in the extended BRST theory. The example of the abelian 2-forms	Annalen der Physik, Vol. 15 (3), 169-176	0003-3804	1.431
36	2006	I.Palarie, M. Socaciu, M. Ursache, C. Florea	A new version of the Chang method for the determination of the optical birefringence of nematic liquid crystals	Journal of Optoelectronics and Advanced Materials, Vol. 8 (1), 291-294	1454-4164	1.106
37	2006	A.Harabor, N. A. Harabor	Pressure effect on optical conductivity for bulk (Bi,Pb)-2223 samples	Journal of Optoelectronics and Advanced Materials, Vol. 8 (3), 1065-1071	1454-4164	1.106

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38	2006	A.Harabor, N. A. Harabor, M. Deletter	Short-wavelength fluctuation regime in paraconductivity of bulk monophase (Bi, Pb)-2223 superconductor system	Journal of Optoelectronics and Advanced Materials, Vol. 8 (3), 1072-1076	1454-4164	1.106
39	2007	M. Osiac, T. Schwarz-Selinger, D. O'Connell, B. Heil, Z. Lj. Petrovic, M. M. Turner, T. Gans, U. Czarnetzki	Plasma boundary sheath in the afterglow of a pulsed inductively coupled RF plasma	Plasma Sources Science and Technology, Vol. 16 (2), 355-363	0963-0252	2.120
40	2007	D. L. Palarie, M. Preda, I. Palarie	Influenta pH-ului asupra auto-oxidării oxihemoglobinei	Revista de Chimie, Vol. 58 (8), 854-857	0034-7752	0.261
41	2007	I.Petrisor, M. Negrea,B. Weyssow	Electron diffusion in a sheared unperturbed magnetic field and an electrostatic stochastic field	Physica Scripta, Vol. 77 (5), art. 055502	0031-8949	0.946
42	2007	G. Rau, G. Iacobescu, S. Radu, V. Meltzer	Synthesis of novel azoderivatives with mesomorphic properties	Revista de Chimie, Vol. 58 (8), 782-785	0034-7752	0.261
43	2007	C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C., Sararu, O. Balus	An irreducible approach to second-order reducible second-class constraints	Journal of Physics A: Mathematical and Theoretical, Vol. 40 (48), 14537-14554	1751-8113	1.680
44	2007	C. M. Topala, G. Iacobescu, B. Oprescu, C. Ducu	Optical and thermo-electrical effects in newly synthesised cholesteric compounds	Materials Science and Engineering C, Vol. 27 (5-8 SPEC. ISS.), 1171-1173	0928-4931	1.486
45	2007	M. Negrea, I. Petrisor, B. Weyssow	Role of stochastic anisotropy and shear on magnetic field lines diffusion	Plasma Physics and Controlled Fusion, Vol. 49 (11), 1767-1781	0741-3335	3.070
46	2007	N. Pometescu, B. Weyssow	Radial and poloidal particle and energy fluxes in a turbulent non-Ohmic plasma: An ion-cyclotron resonance heating case	Physics of Plasmas, Vol. 14 (2), art. no. 022305	1070-664X	2.325
47	2008	C. Ionescu	The sp(3) BRST Hamiltonian Formalism for the Yang-Mills Fields	Modern Physics Letters A Vol. 23, (10), 737-750	0217-7323	1.334

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48	2008	C. Bizdadea, E. M. Cioroianu, D. Cornea, E. Diaconu, S. O. Saliu, S. C. Sararu	Interactions for a collection of spin-two fields intermediated by a massless p-form	Nuclear Physics B, Vol. 794 (3), 442-494	0550-3213	4.158
49	2008	M. Negrea, I. Petrisor, B. Weyssow	Characterization of zonal flow generation in weak electrostatic turbulence	Physica Scripta, Vol. 77, (5), 055502	0031-8949	0.970
50	2008	C. Bizdadea, D. Cornea, S. O. Saliu	No cross-interactions among different tensor fields with the mixed symmetry (3,1) intermediated by a vector field	Journal of Physics A: Mathematical and Theoretical, Vol. 41 (28), art. 285202	1751-8113	1.540
51	2008	G. Iacobescu, A. L. Paun, C. Cartoaje	Magnetically induced Freedericksz transition and relaxation phenomena in nematic liquid crystals doped with azo-dyes	Journal of Magnetism and Magnetic Materials, Vol. 320 (17), 2180-2184	0304-8853	1.283
52	2008	Gy. Steinbrecher, W. T. Shaw	Quantile Mechanics	European Journal of Applied Mathematics, Vol. 19, 87-112, 2008	0956-7925	0.847
53	2008	D. L. Palarie, M. Preda, I. Palarie	Effect of smoking on concentration of carboxyhemoglobin for persons with β -thalassemia minor	Asian Journal of Chemistry, Vol. 20 (2), 1303-1310	0970-7077	0.268
54	2008	A. Rotaru, A. Kropidlowska, A. Moanta, P. Rotaru, E. Segal	Thermal decomposition kinetics of some aromatic azomonoethers. Part II. Non-isothermal study of three liquid crystals in dynamic air atmosphere	Journal of Thermal Analysis and Calorimetry, Vol. 92 (1), 233-238	1388-6150	1.438
55	2008	A. Rotaru, C. Constantinescu, P. Rotaru, A. Moanta, M. Dumitru, M. Socaciu, M. Dinescu, E. Segal	Thermal analysis and thin films deposition by matrix assisted pulsed LASER evaporation of a 4CN type azomonoether	Journal of Thermal Analysis and Calorimetry, Vol. 92 (1), 279-284	1388-6150	1.630

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56	2008	A. Rotaru, I. Nicolaescu, P. Rotaru, C. Neaga	Thermal characterization of humic acids and other components of raw coal	Journal of Thermal Analysis and Calorimetry, Vol. 92 (1), 297-300	1388-6150	1.630
57	2008	B. Weyssow, V. Remacle, B. Teaca, M. Negrea, I. Petrisor, C. Toniolo	Anomalous test particle transport in turbulent MHD magnetic fields	Journal of Optoelectronics and Advanced Materials, Vol. 10 (8), 1938-1941	1454-4164	0.577
58	2008	M. Negrea, I. Petrisor, B. Weyssow	Influence of magnetic shear and stochastic electrostatic field on the electron diffusion	Journal of Optoelectronics and Advanced Materials, Vol. 10 (8), 1942-1945	1454-4164	0.577
59	2008	M. Negrea, I. Petrisor, B. Weyssow	On revisited models of L-H transition for tokamak plasmas	Journal of Optoelectronics and Advanced Materials, Vol. 10 (8), 1946-1949	1454-4164	0.577
60	2008	N. Pometescu	Ion density perturbation driven by electromagnetic turbulence and ICRH	Journal of Optoelectronics and Advanced Materials, Vol. 10 (8), 1933-1937	1454-4164	0.577
61	2008	E. M. Cioroianu, E. Diaconu, S. C. Sararu	On the uniqueness of D=11 interactions among a graviton, a massless gravitino and a three-form. I: Pauli-Fierz and three-form	International Journal of Modern Physics A, Vol. 23 (29), 4721-4755	0217-751X	0.982
62	2008	E. M. Cioroianu, E. Diaconu, S. C. Sararu	On the uniqueness of D=11 interactions among a graviton, a massless gravitino and a three-form. II: Three-form and gravitini	International Journal of Modern Physics A, Vol. 23 (30), 4841-4859	0217-751X	0.982
63	2008	E. M. Cioroianu, E. Diaconu, S. C. Sararu	On the uniqueness of D=11 interactions among a graviton, a massless gravitino and a three-form. III: Graviton and gravitini	International Journal of Modern Physics A, Vol. 23 (30), 4861-4875	0217-751X	0.982

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64	2008	E. M. Cioroianu, E. Diaconu, S. C. Sararu	On the uniqueness of D=11 interactions among a graviton, a massless gravitino and a three-form. IV: Putting things together	International Journal of Modern Physics A, Vol. 23 (30), 4877-4923	0217-751X	0.982
65	2008	C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, M. Iordache	Four-dimensional couplings among BF and massless Rarita-Schwinger theories: a BRST cohomological approach	European Physical Journal C, Vol. 58 (1), 123-149	1434-6044	2.805
66	2008	R. Cimpoiasu, R. Constantinescu	Lie Symmetries and Invariants for 2D Nonlinear Heat Equation.	Nonlin. Analysis A: Theory, Methods and Applications, Vol. 68 (8), 2261-2268	0362-546X	1.295
67	2008	M. Osiac, N. Scarisoreanu, M. Dinescu	AlN thin film deposition using a radio-frequency beam assisted pulsed laser deposition	Journal of Optoelectronics and Advanced Materials, Vol. 10 (8) 2068-2070	1454-4164	0.577
68	2008	M. Osiac, C.C. Surdu-Bob, M. Badulescu, C.P. Lungu	Optical emission spectroscopy diagnostics of a Ni thermionic vacuum arc (TVA) plasma	Journal of Optoelectronics and Advanced Materials, Vol. 10 (8), 2007-2010	1454-4164	0.577
69	2008	D. Rasleanu, V. Ionescu, G. Prodan, V. Ciupina, C. P. Lungu, C. Surdu-Bob, M. Osiac, O. Pompilian, M. Badulescu, A. M. Lungu, C. Ticos, V. Zaroschi, L. Trupina, C. Miclea	Nanostructured PZT type thin films prepared by thermionic vacuum arc method	Journal of Optoelectronics and Advanced Materials, Vol. 10 (11), 3041	1454-4164	0.577
70	2008	A. Rotaru, M. Goşa, P. Rotaru	Computational thermal and kinetic analysis. Software for non-isothermal kinetics by standard procedure	Journal of Thermal Analysis and Calorimetry, Vol. 94 (2), 367-371	1388-6150	1.630

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71	2008	G. Iacobescu, P. Badea	The thermo-electro-optical effect: influence of the external and material parameters on the colours' succession	Optoelectronics and Advanced Materials – Rapid Communications, Vol. 2 (4), 216-218	1842-6573	0.224
72	2008	C. Topala, S. Anghel, B. Oprescu, G. Iacobescu	Optical method for studying phase transitions of thermotropic mesogeneous substances	Optoelectronics and Advanced Materials – Rapid Communications 2, Vol. (8), 482 – 487	1842-6573	0.224
73	2009	O. G. Pompilian, M. Osiac, G. E. Iacobescu, C. P. Lungu	Layer coatings of Re and Re-NiCr obtained by thermoionic vacuum arc technique	Journal of Optoelectronics and Advanced Materials 11 (11), 1779-1782	1454-4164	0.577
74	2009	B. Teaca, M. K. Verma, B. Knaepen, D. Carati	Energy transfer in anisotropic magnetohydrodynamic turbulence	Physical Review E 79 (4), art. 046312	1539-3755	2.508
75	2009	R. Constantinescu, C. Ionescu	A Chern-Simons gauge-fixed Lagrangian in a “non-canonical” BRST approach	Journal of Physics A: Mathematical and Theoretical	1751-8113	1.540
76	2009	R. Constantinescu, C. Ionescu	The Yang-Mills model: from gauge theory to the mechanical model	Central European Journal of Physics 7 (4) 711 – 720	1895-1082	0.448
77	2009	C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu, O. Balus	Reducible second-class constraints of order L: An irreducible approach	Nuclear Physics B 812 (1-2), 12-45	0550-3213	4.158
78	2009	E. M. Cioroianu, E. Diaconu, S. C. Sararu	On the consistent interactions in D=11 among a graviton, a massless gravitino and a three-form	Fortschritte der Physik 57 (5-7), 535-541	0015-8208	1.309
79	2009	C. Bizdadea, E. M. Cioroianu, A. Danehkar, M. Iordache, S. O. Saliu, S. C. Sararu	Consistent interactions of dual linearized gravity in D=5: couplings with a topological BF model	European Physical Journal C 63 (3), 491-519	1434-6044	2.805

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80	2009	A. Rotaru, A. Moanta, P. Rotaru, E. Segal	Thermal decomposition kinetics of some aromatic azomonoethers. Part III. Non-isothermal study of 4-[(4-chlorobenzyl)oxy]-4'-chloroazobenzene in dynamic air atmosphere	Journal of Thermal Analysis and Calorimetry 95(1), 161-166	1388-6150	1.309
81	2009	A. Rotaru, A. Mietlarek-Kropidłowska, C. Constantinescu, N. Scărisoreanu, M. Dumitru, M. Strankowski, P. Rotaru, V. Ion, C. Vasiliu, B. Becker, M. Dinescu	CdS thin films obtained by thermal treatment of cadmium(II) complex precursor deposited by MAPLE technique	Applied Surface Science 255 (15), 6786–6789	0169-4332	1.576
82	2009	A. Rotaru, G. Bratulescu, P. Rotaru	Thermal analysis of azoic dyes: Part I. Non-isothermal decomposition kinetics of [4-(4-chlorobenzylxy)-3-methylphenyl](p-tolyl)diazene in dynamic air atmosphere	Thermochimica Acta 489 (1-2), 63–69	0040-6031	1.659
83	2009	S. Degeratu, P. Rotaru, G. Manolea, H. Manolea, A. Rotaru	Thermal characteristics of Ni-Ti SMA (shape memory alloy) actuators	Journal of Thermal Analysis and Calorimetry 97 (2), 695-700	1388-6150	1.630
84	2009	A. Rotaru, A. Moanta, G. Popa, P. Rotaru, E. Segal	Thermal decomposition kinetics of some aromatic azomonoethers Part IV. Non-isothermal kinetics of 2-allyl-4-((4-(4-methylbenzylxy)phenyl)diazenyl) phenol in air flow	Journal of Thermal Analysis and Calorimetry 97 (2), 485-491	1388-6150	1.630