

Anexa 3.1.8. Lista de lucrări cadre didactice

LISTA DE LUCRĂRI ÎN DOMENIUL DE STUDII UNIVERSITARE DE LICENȚĂ PENTRU SPECIALIZAREA MECANICĂ FINĂ ȘI NANOTEHNOLOGII

Numele și prenumele: **Nica Petru-Edward**

A. Teza de doctorat.

“Contribuții la studiul materialelor compozite cu matrice de aluminiu”,
suținere publică la 6 februarie 2004, Universitatea Al.I. Cuza Iași

B. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în străinătate.

1	<i>Experimental and Theoretical Studies on the Dynamics of Transient Plasmas Generated by Laser Ablation in Various Temporal Regimes</i> P.E. Nica, S.A. Irimiciuc, M. Agop, S. Gurlui, M. Ziskind, C. Focsa, in “Laser Ablation - From Mechanisms to Applications”, Ed. T. Itina, InTech, Zagreb, Croatia, pp. 2-30 (2017). DOI: 10.5772/intechopen.70759
2	<i>The fractal and its implications in the material science</i> Editors: M. Agop, P.D. Ioannou, P. Nica , V. Păun Athens University Press, Athens, Greece, 2008, ISBN: 978-960-92410-1-4 Coautor Cap. VI
3	<i>Particles and Fields</i> Editors: M. Agop, P.D. Ioannou P. Nica (coautor diverse capitole) Athens University Press, Athens, Greece, 2005
4	<i>Nonlinearities in Materials Science and Field Theories</i> Editors: M. Agop, E. Zerikiotis P. Nica (coautor cap 4,5,7) Ed. Graphic Arts, Atena, Grecia, 2002, pp. 85-120;
5	<i>Nonlinear Phenomena in Materials Science</i> , Editors: M. Agop, N. Rezlescu, G. Kalogirou P. Nica (coautor cap. 5) Ed. Graphic Arts, Athens, Greece 1999 ISBN 960-91155-0-0

C. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în țară, la edituri recunoscute CNCSIS.

1	<i>CAPITOLE DE FIZICĂ GENERALĂ pentru învățământul tehnic superior</i> L. Bădeliță, P. Nica , Editura Performantica, 2018
2	Ca1. P. Nica , <i>Complemente de Fizică tehnologică</i> , Editura Universității Petrol-Gaze din Ploiești, Ploiești 2011, ISBN 978-973-429-9
3	Ca3. P. Nica , <i>Fizică universitară</i> , vol. 2 Editura Ars Longa, Iasi, 2008, ISBN 973-8912-95-3
4	Ca3. P. Nica , D. Condurache, <i>Introducere in biofizică</i> Editura Ars Longa, Iasi, 2007, ISBN 973-8912-77-6
5	M. Agop, C. Radu, P. Nica , V. Enache <i>Autoorganizarea interfeței solid-lichid și implicații</i>

	Editura Ars Longa, Iași 2007, ISBN 973-8912-56-3
6	Ca4. E.I. Horga, P. Nica , Gh. Călugăru, <i>FIZICA pentru definitivat, grade și concursuri</i> , vol. 1,2,3 Editura Tehnica INFO, Chișinău, 1999, ISBN 9975-910-80-7, 675 pg.
7	I1. P. Nica , C.D. Nechifor, S.E. Băcăiță, <i>Caiet de lucrări practice la disciplina Fizică 2 pentru Facultatea de Chimie Industrială</i> , Editura PIM, Iași 2014, ISBN: 978-606-1715-8
8	I2. P. Nica , C.D. Nechifor, R. Bădescu, D. Condurache, <i>Caiet de lucrări practice la disciplina Fizică Generală</i> Editura PIM, Iași 2010, ISBN: 978-606-13-0035-8
9	I3. G. Strat , D. Condurache, R. Bădescu, I. Grecu, P. Nica <i>Caiet de lucrări practice de fizică. Specializarea Ingineria mediului</i> Editura PIM, Iași 2009, ISBN: 978-606-520-598-7
10	I4. G. Strat, D. Condurache, R. Bădescu, I. Grecu, P. Nica , I. Horga <i>Caiet de lucrări practice de fizică și biofizică</i> Editura PIM, Iași 2003, ISBN: 973-7967-27-5
11	I5. <i>Teste de fizica pentru admitere (Vol. 1,2,3)</i> Ed. Univ. tehnice "Gh. Asachi" Iași, 2002, Autori: membrii Catedrei de Fizică (20 pers), 16.5cm/22.5cm, 40 rânduri/pagina
12	R.A. Stana, B.A. Stana, P. Nica , M. Agop, <i>Dinamici fractale în nanostructuri</i> Editura Ars Longa, Iași 2014, ISBN 978-973-148-172-2
13	P. Nica , I. Nica, <i>Compozite dentare restaurative: aspecte structurale și proprietăți fizice</i> Editura Ars Longa, Iași 2014, ISBN 978-973-148-174-6
14	M. Agop, R.S. Luciu, C. Buzea, P. Nica <i>Utilizarea dinamicii neliniare în modelarea unor procese fizice</i> Editura Ars Longa, Iași 2012, ISBN 978-973-148-107-4

D. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate pe plan local.

E. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate pe web.

F. Lucrări științifice publicate în reviste cotate ISI sau indexate în baze de date internaționale.

	Autori	Titlu	Revistă	An	Vol	Nr	Pag	Nr. Art.
1	Nica, PE ; Ursu, C	Formation mechanisms of carbon dimer in excimer laser produced plasma	EUROPEAN PHYSICAL JOURNAL D	2020	74	10		207
2	Irimiciuc, SA; Nica, PE ; Agop, M; Focsa, C	Target properties - Plasma dynamics relationship in laser ablation of metals: Common trends for fs, ps and ns irradiation regimes	APPLIED SURFACE SCIENCE	2020	506			144 926

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
3	Ursu, C; Nica, P ; Rusu, BG; Focsa, C	V-shape plasma generated by excimer laser ablation of graphite in argon: Spectroscopic investigations	SPECTROSCOPIC ACTA PART B-ATOMIC SPECTROSCOPY	2020	163				105 743
4	Nica, P ; Gurlui, S; Agop, M; Focsa, C	Oscillatory regimes of Langmuir probe current in femtosecond laser-produced plasmas: Experimental and theoretical investigations	APPLIED SURFACE SCIENCE	2019	481		125	132	
5	Ursu, C; Nica, P ; Focsa, C	Excimer laser ablation of graphite: The enhancement of carbon dimer formation	APPLIED SURFACE SCIENCE	2018	456		717	725	
6	Ursu, C; Nica, P ; Focsa, C; Agop, M	Fractal Method for Modeling the Peculiar Dynamics of Transient Carbon Plasma Generated by Excimer Laser Ablation in Vacuum	COMPLEXITY	2018					181 408 2
7	Focsa, C; Gurlui, S; Nica, P ; Agop, M; Ziskind, M	Plume splitting and oscillatory behavior in transient plasmas generated by high-fluence laser ablation in vacuum	APPLIED SURFACE SCIENCE	2017	424		299	309	
8	Nica, P ; Gurlui, S; Osiac, M; Agop, M; Ziskind, M; Focsa, C	Investigation of femtosecond laser-produced plasma from various metallic targets using the Langmuir probe characteristic	PHYSICS OF PLASMAS	2017	24	10			103 119
9	Irimiciuc, SA; Gurlui, S; Bulai, G; Nica, P ; Agop, M; Focsa, C	Langmuir probe investigation of transient plasmas generated by femtosecond laser ablation of several metals: Influence of the target physical properties on the plume dynamics	APPLIED SURFACE SCIENCE	2017	417		108	118	
10	Irimiciuc, SA; Gurlui, S; Nica, P ; Focsa, C; Agop, M	A compact non-differential approach for modeling laser ablation plasma dynamics	JOURNAL OF APPLIED PHYSICS	2017	121	8			833 01

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
11	Nica, I; Nica, PE ; Ghizdovat, V; Agop, M	New Mathematical Procedures in the Investigation of Biological Nanostructure Dynamics	2017 IEEE INTERNATIONAL CONFERENCE ON E-HEALTH AND BIOENGINEERING CONFERENCE (EHB)	2017			97	100	
12	Andrian, S; Munteanu, B; Taraboanata, I; Negraia, D; Nica, PE; Stoleriu, S; Nica, I	Surface Roughness after Finishing and Polishing of a Restorative NanoComposite Material	2017 IEEE INTERNATIONAL CONFERENCE ON E-HEALTH AND BIOENGINEERING CONFERENCE (EHB)	2017			101	104	
13	Irimiciuc, SA; Agop, M; Nica, P ; Gurlui, S; Mihaileanu, D; Toma, S; Focsa, C	Dispersive effects in laser ablation plasmas	JAPANESE JOURNAL OF APPLIED PHYSICS	2014	53	11			116 202
14	Nica, PE ; Rusu, GB; Dragos, OG; Ursu, C	Effect of Excimer Laser Beam Spot Size on Carbon Laser-Produced Plasma Dynamics	IEEE TRANSACTIONS ON PLASMA SCIENCE	2014	42	10	269 4	269 5	
15	Ursu, C; Nica, PE	Diagnosis of carbon laser produced plasma by using an electrostatic energy analyzer	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2013	15	1-2	42	45	
16	Nica, PE ; Agop, M; Gurlui, S; Bejinariu, C; Focsa, C	Characterization of Aluminum Laser Produced Plasma by Target Current Measurements	JAPANESE JOURNAL OF APPLIED PHYSICS	2012	51	10			106 102
17	Agop, M; Nica, P ; Niculescu, O; Dimitriu, DG	Experimental and Theoretical Investigations of the Negative Differential Resistance in a Discharge Plasma	JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN	2012	81	6			645 02
18	Costan, A; Cimpoesu, RH; Ionita, I; Dima, A; Forna, N; Nica, P ; Agop, M	Hydroxyapatite and PMMA Thin Films Synthesized by Pulsed Laser Deposition on Titanium Based Metallic Substrates	MATERIALE PLASTICE	2011	48	4	299	302	
19	Agop, M; Nica, P ; Gurlui, S; Focsa, C; Magop, D; Borsos, Z	The chaotic atom model via a fractal approximation of motion	PHYSICA SCRIPTA	2011	84	4			450 17

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
20	Nica, P ; Agop, M; Miyamoto, S; Amano, S; Nagano, A; Inoue, T; Poll, E; Mochizuki, T	Multi-peak structure of the ion current in laser produced plasma	EUROPEAN PHYSICAL JOURNAL D	2010	60	2	317	323	
21	Casian-Botez, I; Agop, M; Nica, P ; Paun, V; Munceleanu, GV	Conductive and Convective Types Behaviors at Nano-Time Scales	JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE	2010	7	11	2271	2280	
22	Ursu, C; Pompilian, O; Gurlui, S; Nica, P ; Agop, M; Dudeck, M; Focsa, C	Al ₂ O ₃ ceramics under high-fluence irradiation: plasma plume dynamics through space- and time-resolved optical emission spectroscopy	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING	2010	101	1	153	159	
23	Nica, P ; Agop, M; Gurlui, S; Focsa, C	Oscillatory Langmuir probe ion current in laser-produced plasma expansion	EPL	2010	89	6			65001
24	Agop, M; Nica, PE ; Gurlui, S; Focsa, C; Paun, VP; Colotin, M	Implications of an extended fractal hydrodynamic model	EUROPEAN PHYSICAL JOURNAL D	2010	56	3	405	419	
25	Agop, M; Nica, P ; Gurlui, S; Focsa, C	Fractal hydrodynamic model of high-fluence laser ablation plasma expansion	INTERNATIONAL SYMPOSIUM ON HIGH POWER LASER ABLATION 2010	2010	1278		612	+	
26	Niculescu, O; Nica, P ; Gurlui, S; Forna, N; Casian-Botez, I; Ionita, I; Constantin, B; Badarau, G	Experimental Investigations of Polymer Plasma Laser Ablation	MATERIALE PLASTICE	2009	46	3	336	338	
27	Colotin, M; Pompilian, GO; Nica, P ; Gurlui, S; Paun, V; Agop, M	Fractal Transport Phenomena through the Scale Relativity Model	ACTA PHYSICA POLONICA A	2009	116	2	157	164	
28	Nica, P ; Vizureanu, P; Agop, M; Gurlui, S; Focsa, C; Forna, N; Ioannou, PD; Borsos, Z	Experimental and Theoretical Aspects of Aluminum Expanding Laser Plasma	JAPANESE JOURNAL OF APPLIED PHYSICS	2009	48	6			66001
29	Agop, M; Chicos, L; Nica, P	Transport phenomena in nanostructures and non-differentiable space-time	CHAOS SOLITONS & FRACTALS	2009	40	2	803	814	

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
30	Colotin, M; Niculescu, O; Bibire, TD; Gottlieb, I; Nica, P ; Agop, M	FRactal fluids of conductive type behavior through scale relativity theory	ROMANIAN REPORTS IN PHYSICS	2009	61	3	387	394	
31	Ioannou, PD; Nica, P ; Paun, V; Vizureanu, P; Agop, M	Wave-particle duality through an extended model of the scale relativity theory	PHYSICA SCRIPTA	2008	78	6			651 01
32	Agop, M; Nica, PE ; Ioannou, PD; Antici, A; Paun, VP	Fractal model of the atom and some properties of the matter through an extended model of scale relativity	EUROPEAN PHYSICAL JOURNAL D	2008	49	2	239	248	
33	Gurlui, S; Agop, M; Nica, P ; Ziskind, M; Focsa, C	Experimental and theoretical investigations of a laser-produced aluminum plasma	PHYSICAL REVIEW E	2008	78	2			264 05
34	Agop, M; Harabagiu, A; Nica, P	Wave-particle duality through a hydrodynamic model of the fractal space-time theory	ACTA PHYSICA POLONICA A	2008	113	6	157 1	158 8	
35	Agop, M; Nica, P ; Gurlui, S; Strat, G; Strat, M	Fractal space-time and ball lightning as a self-organizing process in laser produced plasma	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2008	10	6	152 6	152 9	
36	Antici, A; Paun, VP; Nica, P ; Agop, M	Fractal model of the atom in the hydrodynamic approach of scale relativity theory	REVISTA DE CHIMIE	2008	59	4	472	477	
37	Agop, M; Nica, P; Girtu, M	On the vacuum status in Weyl-Dirac theory	GENERAL RELATIVITY AND GRAVITATION	2008	40	1	35	55	
38	Gottlieb, I; Nica, P ; Agop, M	Scale relativity theory for an arbitrary fractal dimension	ROMANIAN REPORTS IN PHYSICS	2008	60	3	443	451	
39	Ioannou, PD; Nica, P ; Agop, M	THE INCREASE OF THE ELECTRICAL CONDUCTANCE IN NANOSTRUCTURES: A THEORETICAL APPROACH	UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS	2008	70	4	67	74	

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
40	Agop, M; Nica, P ; Ioannou, PD; Malandraki, O; Gavanas-Pahomi, I	El Naschie's epsilon((infinity)) space-time, hydrodynamic model of scale relativity theory and some applications	CHAOS SOLITONS & FRACTALS	2007	34	5	170 4	172 3	
41	Nica, P ; Miyamoto, S; Amano, S; Inoue, T; Shimoura, A; Mochizuki, T	Space-resolved soft X-ray emission from laser produced lithium plasma	PHYSICS LETTERS A	2007	370	2	154	157	
42	Inoue, T; Okino, H; Nica, PE ; Amano, S; Miyamoto, S; Mochizuki, T	Xe capillary target for laser-plasma extreme ultraviolet source	REVIEW OF SCIENTIFIC INSTRUMENTS	2007	78	10			105 105
43	Nagano, A; Inoue, T; Nica, PE ; Amano, S; Miyamoto, S; Mochizuki, T	Extreme ultraviolet source using a forced recombination process in lithium plasma generated by a pulsed laser	APPLIED PHYSICS LETTERS	2007	90	15			151 502
44	Agop, M; Vizureanu, P; Nica, P ; Mamut, E; Ioannou, PD	Hydrodynamic model of scale relativity theory for nanomaterials. (II) the anomaly of the heat transfer in nanofluids by means of a differential negative thermal conductance	METALURGI A INTERNATIONAL	2007	12	3	24	29	
45	Nica, PE ; Miyamoto, S; Amano, S; Inoue, T; Shimoura, A; Kaku, K; Mochizuki, T	Soft x-ray spectra from laser heated lithium targets	APPLIED PHYSICS LETTERS	2006	89	4			415 01
46	Inoue, T; Nica, PE ; Kaku, K; Shimoura, A; Amano, S; Miyamoto, S; Mochizuki, T	Studies on cryogenic Xe capillary jet target for laser-produced plasma EUV-light source	EMERGING LITHOGRAPHIC TECHNOLOGIES X, PTS 1 AND 2	2006	615 1		U15 16	U15 24	615 13U
47	Miyamoto, S; Amano, S; Inoue, T; Nica, PE ; Shimoura, A; Kaku, K; Sekioka, T; Mochizuki, T	EUV source developments on laser-produced plasmas using cryogenic Xe and lithium new scheme target	EMERGING LITHOGRAPHIC TECHNOLOGIES X, PTS 1 AND 2	2006	615 1		U15 01	U15 10	615 13S
48	Agop, M; Ioannou, PD; Nica, P	Superconductivity by means of the subquantum medium coherence	JOURNAL OF MATHEMATICAL PHYSICS	2005	46	6			621 10

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
49	Agop, M; Ioannou, PD; Nica, P ; Galusca, G; Stefan, M	El Naschie's coherence on the subquantum medium	CHAOS SOLITONS & FRACTALS	2005	23	5	149 7	150 9	
50	Agop, M; Ioannou, PD; Luchian, D; Nica, P ; Radu, C; Condurache, D	El Naschie's cantorians strings and dendritic morphogenesis	CHAOS SOLITONS & FRACTALS	2004	21	3	515	536	
51	Agop, M; Ioannou, P; Luchian, D; Nica, P ; Radu, C	Dendritic morphogenesis by means of a fractal	MATERIALS TRANSACTIONS	2004	45	5	152 8	153 4	
52	Agop, M; Ioannou, PD; Nica, P	El Naschie's cantorians strings and duality in Weyl-Dirac theory	CHAOS SOLITONS & FRACTALS	2004	19	5	105 7	107 0	
53	Agop, M; Ioannou, P; Nica, P ; Radu, C; Alexandru, A; Vizureanu, P	Fractal characteristics of the solidification process	MATERIALS TRANSACTIONS	2004	45	3	972	975	
54	Agop, M; Ioannou, PD; Nica, P ; Buzea, CG; Jarcu, M	$\epsilon(\infty)$ Cantorian space-time, polarization gravitational field and van der Waals-type forces	CHAOS SOLITONS & FRACTALS	2003	18	1	1	16	
55	Agop, M; Ioannou, PD; Nica, P	On the Weyl-Dirac duality by means of a Cantorian fractal string	PHYSICS LETTERS A	2003	314	1-2	131	139	
56	Agop, M; Ioannou, PD; Buzea, CG; Nica, P	Hydrodynamic formulation of scale relativity theory and unified superconductivity by means of a fractal string	PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS	2003	390	1	37	55	
57	Agop, M; Ioannou, PD; Buzea, C; Nica, P	Cantorian $\epsilon(\infty)$ space-time, a hydrodynamical model and unified superconductivity	CHAOS SOLITONS & FRACTALS	2003	16	2	321	338	
58	Agop, M; Strat, M; Strat, G; Nica, P	Cantorian $\epsilon(\infty)$ structures in discharge plasma double layers. Theoretical and experimental aspects of basic processes	CHAOS SOLITONS & FRACTALS	2002	13	7	154 1	156 9	
59	Agop, M; Ioannou, PD; Coman, P; Ciobanu, B; Nica, P	Cantorian $E(\infty)$ space-time and generalized superconductivity	CHAOS SOLITONS & FRACTALS	2001	12	11	194 7	198 2	

	Autori	Titlu	Revistă	An	Vol	Nr	Pag		Nr. Art.
60	Agop, M; Buzea, CG; Nica, P	Cantorian E-(infinity) space-time, de Broglie and the pair-breaking time of high-temperature superconductors	CHAOS SOLITONS & FRACTALS	2001	12	3	571	577	
61	Agop, M; Buzea, CG; Nica, P	Cantorian E(infinity) space-time and the energy gap of high temperature superconductors	CHAOS SOLITONS & FRACTALS	2001	12	4	735	740	
62	Agop, M; Nica, P ; Carcea, I	Thermal oscillation modes of the solid-liquid interface solidification and melting	MATERIALS TRANSACTIONS JIM	2001	42	2	197	206	
63	Agop, M; Buzea, CG; Nica, P	The Cantorian structure of the background magnetic field and high temperature superconductors	CHAOS SOLITONS & FRACTALS	2000	11	15	2561	2569	
64	Agop, M; Buzea, CG; Nica, P	Local gravitoelectromagnetic effects on a superconductor	PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS	2000	339	2	120	128	
65	Agop, M; Nica, P	The wave-particle duality in the Weyl-Dirac theory	CLASSICAL AND QUANTUM GRAVITY	2000	17	18	3627	3644	
66	Agop, M; Buzea, CG; Nica, P	Ginzburg-Landau equation and the temperature dependence of the superconducting state parameters	PHYSICA C	2000	336	1-2	123	130	
67	Agop, M; Nica, P	Some physical implications of the Weyl-Dirac theory	CLASSICAL AND QUANTUM GRAVITY	1999	16	10	3367	3380	
68	Agop, M; Nica, P	On the Cantorian structure of time in relativity	CHAOS SOLITONS & FRACTALS	1999	10	8	1295	1302	

G. Lucrări științifice publicate în reviste din străinătate.

H. Lucrări științifice publicate în reviste din țară, recunoscute CNCSIS.

1	P. Nica, M. Agop, <i>Interpretation of the Expulsion-Incorporation Phenomena at Metal Matrix – Non-Metallic Component Interface by the Energy-Bands Theory,</i> Metalurgia, nr. 4, 1997, p.81-83
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2	P. Nica , M. Agop, I. Carcea, <i>Considerații asupra determinării tensiunii superficiale a metalelor folosind metoda picăturii imobile</i> , Metalurgia, nr. 4, 1999, pp. 31-38
3	M. Agop, P. Nica , C. Stan, <i>Solidification and quasi-autonomous structures of DL type (II)</i> , Romanian Reports in Physics, vol. 52, no. 1-2, 2000, pp. 45-62
4	P. Nica , M. Agop, C. Stan, <i>Solidification and quasi-autonomous structures of DL type (I)</i> , Romanian Reports in Physics, vol. 52, no. 1-2, 2000, pp. 35-43
5	M. Agop, C. Gh. Buzea, P. Nica , <i>Some Implications of the 2D-3D GL Equations in High Temperature Superconductors</i> , Bul. Inst. Pol. Iasi, Tomul XLVIII, Fasc 1-2 (2002), pp. 109-132
6	C. Radu, P. Nica , M. Agop, <i>Fractal characteristics of the solidification process</i> Bul. Inst. Pol. Iasi, Tomul XLIX (LIII), Fasc 3-4 (2003), pp. 105-112
7	P. Nica , M. Agop, C. Albu, <i>Numerical Aspects on Thermal Field Distribution in Different Geometries</i> , Buletinul Universității Tehnice “Gh. Asachi”, Iași, 2003, Fasc 3-4, pp. 119-132
8	P. Nica , S. Istrate, I.E. Horga, Gh. Calugaru, <i>On the electrical properties of graphite particles aluminum composites</i> , Analele Univ. Dunărea de jos, Galați, Fasc. II, 2003, pp. 43-504
9	I. Toma, V. Rusu, P. Nica <i>Thermal properties of remanium-type alloys and metal-ceramic interfaces</i> Bul. Inst. Pol. Iasi, Tomul L (LIV), Fasc 1-2 (2004), pp. 131-138
10	P. Nica , M. Agop, P. Vizureanu, <i>On the Fluid Velocity Field in the Process of Composite Materials Obtaining using VORTEX Method</i> , Bul. Inst. Pol. Iasi, Sectia IX Fasc. 1-2, 2004, pp. 11-18
11	P. Nica , M. Agop, Gh. Calugaru, D. Ursu, R. Chelariu, <i>On the electrical resistivity of aluminum matrix composites materials</i> , Romanian Journal of Physics, Vol. 49, No. 5-6, 2004, pp. 463-469
12	P. Nica , I. Toma, V. Rusu, <i>Some magnetic properties of the remanium-type alloys</i> Bul. Inst. Pol. Iasi, Tomul L (LIV), Fasc 1-2 (2004), pp. 125-130
13	V. Rusu, I. Toma, R. Chelariu, P. Nica <i>Metal-ceramic interfaces by means of a structural analysis</i> Bul. Inst. Pol. Iasi, Tomul L (LIV), Fasc 1-2 (2004), pp. 117-124

I. Lucrări științifice publicate în volumele conferințelor.

1	S.A. Irimiciuc, S. Gurlui, P. Nica , M. Agop, C. Focsa, “ <i>Experimental and theoretical investigations on the dynamics of transient plasma plumes generated by laser ablation in various temporal regimes</i> ”, 17 th International Balkan Workshop on Applied Physics, Constanta, Roumanie, 11-14 juillet 2017
2	S. Gurlui, P. Nica , M. Agop, C. Focsa, “ <i>Peculiar effects in transient plasmas generated by high-fluence laser ablation: from ns to ps to fs regimes</i> ”, 32 nd International Conference on Phenomena in Ionized Gases, Iasi, Roumanie, 26-31 juillet 2015
3	S. Gurlui, P. Nica , M. Agop, M. Osiac, C. Focsa, “ <i>Optical and Electrical Investigations on Transient Plasmas Generated by Laser Ablation in Various Temporal Regimes</i> ”, 14 th International Balkan Workshop on Applied Physics, Constanta, Roumanie, 2-4 juillet 2014

4	S. Gurlui, P. Nica , M. Agop, M. Osiac, C. Focsa, “ <i>Two-Temperature Plasmas Generated by Femtosecond Laser Ablation of Metallic Targets</i> ”, 16 th International Conference on Plasma Physics and Applications, Magurele, Roumanie, 20-25 juin 2013
5	S. Gurlui, P. Nica , M. Agop, C. Focsa, “ <i>High-Fluence Laser Ablation Plasma Dynamics: Fundamentals and Applications</i> ”, 4th Romanian National Conference of Applied Physics, Iasi, Roumanie, 19-20 novembre 2010
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7	V1. S. Gurlui, M. Agop, P. Nica , M. Ziskind, C. Focsa <i>Dynamics of space charge structures generated by laser ablation: experiment and theory</i> 9th Int. Conf. on Laser Ablation COLA-07, Tenerife, Spain, 2007
8	V2. S. Gurlui, M. Agop, P. Nica , M. Ziskind, C. Focsa <i>Study of the laser ablation plasma plumes using the hydrodynamic model</i> 8th International Balkan Workshop on Applied Physics, Constanta, Romania, 2007
9	V3. M. Agop, P. Nica , M. Ziskind, C. Focsa, <i>Experimental and theoretical investigations on the dynamics of laser ablation plasma plumes</i> International Conference FLAMN-07 Fundamentals of Laser Assisted Micro- and Nanotechnologies, St. Petersburg, Russia, 2007
10	V4. S. Miyamoto, S. Amano, T. Inoue, A. Shimoura, P. Nica , H. Kinugasa, T. Mochizuki <i>EUV Source Developments and Laser-Produced Plasmas using Xe Cryogenic Target and Li new Scheme Target</i> EUV Source Workshop, San Jose, 27 February 2005
11	V5. T. Inoue, K. Kaku, A. Shimoura, P. Nica , S. Amano, S. Miyamoto, T. Mochizuki <i>Studies on cryogenic Xe and Li targets for LPP-EUV source</i> EUV Source Workshop, San Jose, 27 February 2005
12	V6. P. Nica , S. Miyamoto, S. Amano, T. Inoue, A. Shimoura, K. Kaku, H. Kinugasa, T. Mochizuki <i>Theoretical Results of Laser Plasma EUV Source using Lithium Target</i> 19th International Conference on Numerical Simulation of Plasmas and Asia Pacific Plasma Theory Conference, July 12-15, 2005, Nara, Japan.
13	V7. S. Amano, S. Miyamoto, A. Shimoura, T. Inoue, K. Kaku, P. Nica , T. Mochizuki <i>EUV source developments on laser-produced plasmas using cryogenic Xe and Li new scheme targets</i> Next Generation on Lithography Symposium, Tokyo, 7-8 July, 2005
14	V8. P. Nica , S. Miyamoto, T. Inoue, A. Shimoura, S. Amano, T. Mochizuki <i>Laser Plasma EUV Source using Li Target</i> 11 th Meeting of Japan Society of Applied Physics, 08-10 June 2005, Saitama, Japan
15	V9. P. Nica , M. Agop, C. Roman, R. Chelariu, <i>Numerical Aspects on the Thermal Field Space-Time Distribution in Solidifying Metals</i> IInd International Materials Symposium, Aprilie 2003, Caparica, Portugalia
16	V10. M. Agop, P. D. Ioannou, P. Nica , <i>On the Solid-Liquid Interface Dynamics</i> , II International Materials Symposium, Aprilie 2003, Caparica, Portugalia
17	V11. P. Nica , M. Agop, Gh. Calugaru, D. Ursu, R. Chelariu, <i>On the electrical resistivity of aluminum matrix composites materials</i> , 4 th International Balkan Workshop on Applied Physics, Septembrie, 2003, Constanța
18	P. Nica , M. Agop, <i>Numerical Evaluation of Thermal Field in Solidifying Composites Materials</i> , 12 th International Conference on Composite Materials, Paris, iulie, 1999

J. Invenții.

K. Contracte de cercetare.

E. P1. ID_605/2007 , Perioada 2007-2010 F. <i>Caracterizarea surselor de radiații X bazate pe plasma produsa cu ajutorul laserului,</i> G. Director proiect, colectiv 5 membri, 200 000 RON, buget anual mediu UTI 2007: 41 408 RON
P2. Grant cod CNCSIS 269, Tema 22, Perioada 2007–2009, <i>Studiul nanostructurilor și nanocompozitelor pe bază de poliuretan și poliolefine prin metode fizice. Aplicații,</i> Membru proiect, colectiv 7 membri, 200 000 RON, buget anual mediu UTI 2007: 41 408 RON
P3. Ceex 06-11-51 / 2006 (parteneriat) - Perioada: 2007 – 2009. <i>Noi materiale semiconductoare nastructurate cu posibile implicații în realizarea de senzori solizi de gaze și vapori pentru protecția mediului</i> Membru colectiv, 3 persoane UTI, Valoare totala UTI : 30 000 RON, buget anual mediu UTI 2007: 41 408 RON
P4. CEEX 76-5/2006 (parteneriat), Perioada 2006– 2008 <i>Metode computaționale de înalta performanta in modelarea si proiectarea materialelor nanomagnetice,</i> Membru proiect, buget UTI 147 500; buget anual mediu UTI 2006: 24.949,21 RON
P5. Grant, cod CNCSIS 91 cu nr. 78G/01.06.2006, – Perioada 2006-2009 cu tema <i>Modelarea proceselor fizico-chimice în elaborarea unei metode noi, ecologice , de obținere a titanului,</i> membru proiect. Valoare 2006 = 45 000 RON
P6. CEEX 6110/2005 (parteneriat), Perioada 2005 – 2007 <i>Dezvoltarea de noi concepte, tehnici si abilitați bazate pe metode sinergice de evaluare neinvaziva a materialelor noi si avansate, a materialelor micro si nanostructurate; estimări de ciclu de viata a structurilor realizate cu acestea – SINERMAT,</i> Membru proiect, colectiv 3 membri Buget UTI 75000 RON, Valoare medie anuala UTI pentru 2005 = 16793,8 RON
P7. Contract CERES 1916/25.09.2004 (parteneriat) – Perioada 2004-2006: <i>Disocierea moleculelor diatomice prin excitări multifotonice succesive. Producerea industrială a ozonului cu ajutorul laserului - RELANSIN,</i> membru proiect, 3 persoane UTI, buget UTI 69 000 000 ROL
P8. Contract CERES 3-4 /5.11.2003 (parteneriat): – Perioada 2003-2005 <i>Sisteme avansate de reconstrucția formei si de determinare a parametrilor fizico-mecanici ai obiectelor 2D si 3D in materiale compozite multistrat utilizând tehnici de ultrasunete.</i> Membru proiect, colectiv 3 membri Buget UTI 75000 RON, Valoare medie anuala UTI pentru 2005 = 16793,8 RON
P9. Contract CERES nr. 57/2002 (parteneriat) Perioada: 2003-2005 <i>Pachet de programe bazat pe algoritmi genetici și rețele neuronale cu aplicații în fizica supraconductorilor ceramici,</i> membru proiect, 3 persoane UTI, buget UTI 69 000 000 ROL

L. Premii, distincții.

M. Alte realizări semnificative.

Data,