Carmen Ristoscu

List of Publications by Year
in descending order

141 papers	2,204 citations	236925 25 h-index	276875 41 g-index
143 all docs	143 docs citations	143 times ranked	2587 citing authors

#	Article	IF	Citations
1	Advances in Laser Additive Manufacturing of Cobaltâ€“Chromium Alloy Multi-Layer Mesoscopic Analytical Modelling with Experimental Correlations: From Micro-Dendrite Grains to Bulk Objects. Nanomaterials, 2022, 12, 802.	4.1	3
2	Laser additive manufacturing of bulk and powder ceramic materials: mathematical modeling with experimental correlations. Rapid Prototyping Journal, 2022, 28, 1520-1529.	3.2	1
3	Implant Surfaces Containing Bioglasses and Ciprofloxacin as Platforms for Bone Repair and Improved Resistance to Microbial Colonization. Pharmaceutics, 2022, 14, 1175.	4.5	6
4	Laser additive manufacturing of Co-Cr alloy and the induced defects thereof. International Journal of Advanced Manufacturing Technology, 2022, 121, 1385-1400.	3.0	3
5	Thermal Nonlinear Kleinâ€“Gordon Equation for Nano-/Micro-Sized Metallic Particleâ€“Attosecond Laser Pulse Interaction. Materials, 2021, 14, 857.	2.9	1
6	Grain refinement and mechanical properties for AISI304 stainless steel single-tracks by laser melting deposition: Mathematical modelling versus experimental results. Results in Physics, 2021, 22, 103880.	4.1	14
7	Fourier two-temperature model to describe ultrafast laser pulses interaction with metals: A novel mathematical technique. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 392, 127155.	2.1	6
8	Laser Coatings via State-of-the-Art Additive Manufacturing: A Review. Coatings, 2021, 11, 296.	2.6	18
9	Synergistic effect in a two-phase laser procedure for production of silver nanoparticles colloids applicable in ophthalmology. Optics and Laser Technology, 2021, 138, 106850.	4.6	10
10	Bridging the analytical and artificial neural network models for keyhole formation with experimental verification in laser melting deposition: A novel approach. Results in Physics, 2021, 26, 104440.	4.1	11
11	Artificial Neural Network Algorithms for 3D Printing. Materials, 2021, 14, 163.	2.9	65
12	Composite Drug Delivery System Based on Amorphous Calcium Phosphateâ€“Chitosan: An Efficient Antimicrobial Platform for Extended Release of Tetracycline. Pharmaceutics, 2021, 13, 1659.	4.5	5
13	An Analytical Multiple-Temperature Model for Flash Laser Irradiation on Single-Layer Graphene. Nanomaterials, 2020, 10, 1319.	4.1	8
14	Estimation of clad geometry and corresponding residual stress distribution in laser melting deposition: analytical modeling and experimental correlations. International Journal of Advanced Manufacturing Technology, 2020, 111, 77-91.	3.0	29
15	Three-Jet Powder Flow and Laserâ€“Powder Interaction in Laser Melting Deposition: Modelling Versus Experimental Correlations. Metals, 2020, 10, 1113.	2.3	25
16	Fish Bone Derived Bi-Phasic Calcium Phosphate Coatings Fabricated by Pulsed Laser Deposition for Biomedical Applications. Marine Drugs, 2020, 18, 623.	4.6	14
17	Non-Fourier Estimate of Electron Temperature in Case of Femtosecond Laser Pulses Interaction with Metals. Metals, 2020, 10, 606.	2.3	12
18	Investigation of nitrogen and iron co-doped TiO2 films synthesized in N2/CH4 via pulsed laser deposition technique. Applied Nanoscience (Switzerland), 2020, 10, 2569-2579.	3.1	7

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19	Functional Bioglassâ€"Biopolymer Double Nanostructure for Natural Antimicrobial Drug Extracts Delivery. Nanomaterials, 2020, 10, 385.	4.1	15
20	Antimicrobial and Cytocompatible Bovine Hydroxyapatite-Alumina-Zeolite Composite Coatings Synthesized by Pulsed Laser Deposition from Low-Cost Sustainable Natural Resources. ACS Sustainable Chemistry and Engineering, 2020, 8, 4026-4036.	6.7	14
21	Biomimetic Collagen/Zn2+-Substituted Calcium Phosphate Composite Coatings on Titanium Substrates as Prospective Bioactive Layer for Implants: A Comparative Study Spin Coating vs. MAPLE. Nanomaterials, 2019, 9, 692.	4.1	14
22	Thin WBx and WyTi1â^'yBx films deposited by combined magnetron sputtering and pulsed laser deposition technique. Applied Surface Science, 2019, 478, 505-513.	6.1	15
23	Gradient multifunctional biopolymer thin film assemblies synthesized by combinatorial MAPLE. Applied Surface Science, 2019, 466, 628-636.	6.1	12
24	New bio-active, antimicrobial and adherent coatings of nanostructured carbon double-reinforced with silver and silicon by Matrix-Assisted Pulsed Laser Evaporation for medical applications. Applied Surface Science, 2018, 441, 871-883.	6.1	22
25	Prevention, Treatment and Tiagnosis of Pathogenic Infections by Using Pulsed Light Radiation Propagating Through Metamaterials. IOP Conference Series: Materials Science and Engineering, 2018, 374, 012011.	0.6	0
26	Combinatorial Laser Synthesis of Biomaterial Thin Films: Selection and Processing for Medical Applications. Springer Series in Materials Science, 2018, , 309-338.	0.6	4
27	Metamaterials for Antimicrobial Biofilm Applications. , 2018, , 257-282.		4
28	Oxidation behaviour of composite CrN/(Cr,V)N coatings with different contents of vanadium induced by UV nanosecond laser pulses. Optical and Quantum Electronics, 2018, 50, 1.	3.3	2
29	Optical metamaterials for decontamination of translucent liquids and gases. Journal Physics D: Applied Physics, 2018, 51, 385101.	2.8	6
30	Thin Films and Nanoparticles by Pulsed Laser Deposition: Wetting, Adherence, and Nanostructuring. , 2018, , 245-276.		2
31	Optoelectronics effects in modernization of advanced implants using periodical optical structure. , 2018, , .		1
32	Improvement in ultraviolet based decontamination rate using meta-materials. Applied Surface Science, 2017, 417, 40-47.	6.1	11
33	Femtosecond laser processing of NiPd single and 5x(Ni/Pd) multilayer thin films. Applied Surface Science, 2017, 417, 16-22.	6.1	5
34	Antimicrobial thin films based on ayurvedic plants extracts embedded in a bioactive glass matrix. Applied Surface Science, 2017, 417, 224-233.	6.1	15
35	Synergistic effects of BMP-2, BMP-6 or BMP-7 with human plasma fibronectin onto hydroxyapatite coatings: A comparative study. Acta Biomaterialia, 2017, 55, 481-492.	8.3	39
36	Laser Ablation of Biomaterials. , 2016, , .		0

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37	Functionalized Antimicrobial Composite Thin Films Printing for Stainless Steel Implant Coatings. Molecules, 2016, 21, 740.	3.8	19
38	Combinatorial MAPLE deposition of antimicrobial orthopedic maps fabricated from chitosan and biomimetic apatite powders. International Journal of Pharmaceutics, 2016, 511, 505-515.	5.2	21
39	Laser thin films deposition and characterization for biomedical applications. , 2016, , 77-125.		25
40	Bioactive glass thin films synthesized by advanced pulsed laser techniques. Journal of Physics: Conference Series, 2016, 764, 012020.	0.4	3
41	Surface-enhanced Raman scattering activity of niobium surface after irradiation with femtosecond laser pulses. Journal of Applied Physics, 2015, 118, .	2.5	6
42	Correlation between electronic structure and photocatalytic properties of non-metal doped TiO2/ZrO2 thin films obtained by pulsed laser deposition method. Vacuum, 2015, 114, 166-171.	3.5	27
43	Structural and biological evaluation of lignin addition to simple and silver-doped hydroxyapatite thin films synthesized by matrix-assisted pulsed laser evaporation. Journal of Materials Science: Materials in Medicine, 2015, 26, 5333.	3.6	47
44	Influence of the scanning conditions on the characteristics of the nanostructures fabricated by laser ablation in liquid. Proceedings of SPIE, 2015, , .	0.8	1
45	Phenomenological model of growth of TiO2films for biomedicine. , 2015, , .		0
46	Stainless steel surface biofunctionalization with PMMA-bioglass coatings: compositional, electrochemical corrosion studies and microbiological assay. Journal of Materials Science: Materials in Medicine, 2015, 26, 195.	3.6	21
47	Antiresorption implant coatings based on calcium alendronate and octacalcium phosphate deposited by matrix assisted pulsed laser evaporation. Colloids and Surfaces B: Biointerfaces, 2015, 136, 449-456.	5.0	33
48	Deposition and surface modification of thin solid structures by high-intensity pulsed laser irradiation. , 2015, , 287-313.		1
49	Electrical characterization of Si doped AlN films synthesized by pulsed laser deposition. EPJ Applied Physics, 2015, 70, 10102.	0.7	0
50	Synthesis of Nanostructured PLD AlN Films: XRD and Surface-Enhanced Raman Scattering Studies. Micro and Nanosystems, 2014, 6, 9-13.	0.6	4
51	Characterisation of the charge transport mechanism in pulsed laser deposited AlN:Si films. , 2014, , .		0
52	Laser synthesis of nanometric iron oxide films for thermo-sensing applications. Materials Research Bulletin, 2014, 50, 148-154.	5.2	4
53	Accurate analysis of indiumâ€“zinc oxide thin films via laser-induced breakdown spectroscopy based on plasma modeling. Journal of Analytical Atomic Spectrometry, 2014, 29, 553.	3.0	29
54	Effect of the preparation method on the optical properties of GeS<inf>1.2</inf> — AgI films. , 2014, , .		0

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55	The effect of laser wavelength on the ablation rate of carbon. Applied Physics A: Materials Science and Processing, 2014, 117, 395-400.	2.3	53
56	Combinatorial MAPLE gradient thin film assemblies signalling to human osteoblasts. Biofabrication, 2014, 6, 035010.	7.1	39
57	Antifungal activity of Ag:hydroxyapatite thin films synthesized by pulsed laser deposition on Ti and Ti modified by TiO2 nanotubes substrates. Applied Surface Science, 2014, 293, 37-45.	6.1	65
58	VIS/IR spectroscopy of thin AlN films grown by pulsed laser deposition at 400Â°C and 800Â°C and various N₂ pressures. Journal of Physics: Conference Series, 2014, 514, 012001.	0.4	10
59	Biomaterial Thin Films by Soft Pulsed Laser Technologies for Biomedical Applications. Springer Series in Materials Science, 2014, , 271-294.	0.6	6
60	Nanocrystalline thin films with charge density wave ground state. Vacuum, 2013, 98, 93-99.	3.5	2
61	Biomimetic Coatings by Pulsed Laser Deposition. Biological and Medical Physics Series, 2013, , 163-191.	0.4	2
62	Combinatorial matrix-assisted pulsed laser evaporation: Single-step synthesis of biopolymer compositional gradient thin film assemblies. Applied Physics Letters, 2012, 101, .	3.3	36
63	Laser technology for synthesis of AlN films: influence of the incident laser fluence on the films microstructure. Journal of Physics: Conference Series, 2012, 356, 012003.	0.4	3
64	Study of the charge transport mechanism in pulsed laser deposited AlN:Si films. Journal of Physics: Conference Series, 2012, 356, 012038.	0.4	0
65	Synthesis of biomaterial thin films by pulsed laser technologies: Electrochemical evaluation of bioactive glass-based nanocomposite coatings for biomedical applications. Materials Science and Engineering C, 2012, 32, 1152-1157.	7.3	28
66	Charge density waves in nanocrystalline thin films of blue bronze K0.3MoO3. Physica B: Condensed Matter, 2012, 407, 1889-1893.	2.7	3
67	Levan Nanostructured Thin Films by MAPLE Assembling. Biomacromolecules, 2011, 12, 2251-2256.	5.4	76
68	Effect of Pulse Laser Duration and Shape on PLD Thin Films Morphology and Structure. , 2011, , .		0
69	Femtosecond laser modification of multilayered TiAlN/TiN coating. Surface and Coatings Technology, 2011, 206, 411-416.	4.8	17
70	Synthesis of ZnO thin films by 40 ps @ 532 nm laser pulses. Applied Physics A: Materials Science and Processing, 2011, 104, 871-876.	2.3	2
71	Optical studies of (AsSe)100â^'x Sb x thin films. Applied Physics A: Materials Science and Processing, 2011, 104, 959-962.	2.3	2
72	Tailoring immobilization of immunoglobulin by excimer laser for biosensor applications. Journal of Biomedical Materials Research - Part A, 2011, 96A, 384-394.	4.0	12

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73	Biocompatibility and bioactivity enhancement of Ce stabilized ZrO₂ doped HA coatings by controlled porosity change of Al₂O₃ substrates. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 96B, 218-224.	3.4	12
74	Structural characterization of AlN films synthesized by pulsed laser deposition. Applied Surface Science, 2011, 257, 5370-5374.	6.1	27
75	Modification of AlN thin films morphology and structure by temporally shaping of fs laser pulses used for deposition. Thin Solid Films, 2011, 519, 6381-6387.	1.8	9
76	Detection of charge density wave ground state in granular thin films of blue bronze K0.3MoO3 by femtosecond spectroscopy. Journal of Applied Physics, 2011, 110, .	2.5	9
77	Study of the charge transport mechanism in AlN:Cr films synthesized by pulsed laser deposition. Journal of Physics: Conference Series, 2010, 223, 012037.	0.4	0
78	Ellipsometric characterization of AlN films synthesized by Pulsed-Laser-Deposition. Journal of Physics: Conference Series, 2010, 253, 012032.	0.4	1
79	Study of the charge transport mechanism in pulsed laser deposited AlN:Cr films. Journal of Physics: Conference Series, 2010, 253, 012036.	0.4	0
80	Metal oxide nanoparticles synthesized by pulsed laser ablation for proton exchange membrane fuel cells. Journal of Power Sources, 2010, 195, 7776-7780.	7.8	15
81	Advanced Biomimetic Implants Based on Nanostructured Coatings Synthesized by Pulsed Laser Technologies. Springer Series in Materials Science, 2010, , 235-260.	0.6	22
82	Shallow hydroxyapatite coatings pulsed laser deposited onto Al2O3 substrates with controlled porosity: correlation of morphological characteristics with in vitro testing results. Applied Surface Science, 2009, 255, 5312-5317.	6.1	11
83	Surface morphology of AlN films synthesized by pulsed laser deposition. Vacuum, 2009, 84, 155-157.	3.5	10
84	AlN:Cr thin films synthesized by pulsed laser deposition: Studies by X-ray diffraction and spectroscopic ellipsometry. Applied Surface Science, 2009, 255, 5271-5274.	6.1	17
85	Spectroscopic studies of (AsSe)100â^'xAgx thin films. Applied Surface Science, 2009, 255, 9691-9694.	6.1	7
86	Biofunctional alendronateâ€“Hydroxyapatite thin films deposited by Matrix Assisted Pulsed Laser Evaporation. Biomaterials, 2009, 30, 6168-6177.	11.4	68
87	Trap space charge limited current in pulsed laser deposited AlN:Cr films. , 2009, , .		0
88	Strontium-substituted hydroxyapatite coatings synthesized by pulsed-laser deposition: In vitro osteoblast and osteoclast response. Acta Biomaterialia, 2008, 4, 1885-1893.	8.3	313
89	A Perspective of Pulsed Laser Deposition (PLD) in Surface Engineering: Alumina Coatings and Substrates. Key Engineering Materials, 2008, 384, 185-212.	0.4	6
90	MEASUREMENTS OF QUANTUM EFFICIENCY OF MG FILMS PRODUCED BY PULSED LASER ABLATION DEPOSITION FOR APPLICATION TO BRIGHT ELECTRON SOURCES. International Journal of Modern Physics A, 2007, 22, 4051-4060.	1.5	1

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91	Photoemission characteristics of PLD grown Mg films under UV laser irradiation. Journal Physics D: Applied Physics, 2007, 40, 5965-5970.	2.8	13
92	Enhanced gas sensing of Au nanocluster-doped or -coated zinc oxide thin films. Journal of Applied Physics, 2007, 102, .	2.5	20
93	Structural and optical characterization of undoped, doped, and clustered ZnO thin films obtained by PLD for gas sensing applications. Applied Surface Science, 2007, 253, 6499-6503.	6.1	10
94	Mg based photocathodes for high brightness RF photoinjectors. Applied Surface Science, 2007, 253, 6531-6534.	6.1	8
95	Study of the gradual interface between hydroxyapatite thin films PLD grown onto Ti-controlled sublayers. Applied Surface Science, 2007, 254, 1150-1154.	6.1	15
96	Nanocrystalline Er:YAG thin films prepared by pulsed laser deposition: An electron microscopy study. Applied Surface Science, 2007, 253, 8268-8272.	6.1	9
97	Femtosecond pulse shaping for phase and morphology control in PLD: Synthesis of cubic SiC. Applied Surface Science, 2006, 252, 4857-4862.	6.1	16
98	Matrix assisted pulsed laser evaporation processing of triacetate-pullulan polysaccharide thin films for drug delivery systems. Applied Surface Science, 2006, 252, 4647-4651.	6.1	31
99	Growth and characterization of Î²-SiC films obtained by fs laser ablation. Applied Surface Science, 2006, 252, 4672-4677.	6.1	25
100	Diffractive optical elements for photonic gas sensors. , 2005, , .		1
101	Structural and optical characterization of AlN films grown by pulsed laser deposition. Applied Surface Science, 2005, 248, 411-415.	6.1	44
102	SnO2 nanostructured films obtained by pulsed laser ablation deposition. Applied Surface Science, 2005, 247, 95-100.	6.1	31
103	Pulsed laser deposition of Mg thin films on Cu substrates for photocathode applications. Applied Surface Science, 2005, 248, 397-401.	6.1	13
104	Nanostructured ZnO coatings grown by pulsed laser deposition for optical gas sensing of butane. Journal of Applied Physics, 2005, 98, 074312.	2.5	33
105	<title>Role of laser pulse duration and ambient nitrogen pressure in deposition of AlN thin films</title>. , 2004, 5581, 356.		0
106	Effects of pulse laser duration and ambient nitrogen pressure in PLD of AlN. Applied Physics A: Materials Science and Processing, 2004, 79, 927-929.	2.3	5
107	<title>Optical emission accompanying pulsed laser ablation of graphite: experiment and kinetics</title>. , 2004, , .		0
108	<title>Pulsed laser deposition of chromium oxides thin films: chemical stabilizations by capping and doping</title>. , 2004, , .		0

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109	Pulsed laser deposition of chromium oxides for applications in spintronics. , 2003, , .		0
110	Optical emission spectroscopy and time-of-flight investigations of plasmas generated from AlN targets in cases of pulsed laser deposition with sub-ps and ns ultraviolet laser pulses. Journal of Applied Physics, 2003, 93, 2244-2250.	2.5	11
111	<title>Particulates in pulsed laser deposition: formation mechanisms and possible approaches to their elimination</title>. , 2002, 4762, 64.		4
112	<title>Quasi-optical dynamical surface resistance characterization of HTS laser-ablated films</title>. , 2002, 4762, 239.		0
113	Mechanical properties improvement of pulsed laser-deposited hydroxyapatite thin films by high energy ion-beam implantation. Applied Surface Science, 2002, 186, 483-489.	6.1	26
114	Plume emissions accompanying 248 nm laser ablation of graphite in vacuum: Effects of pulse duration. Journal of Applied Physics, 2002, 91, 6162-6172.	2.5	62
115	Calcium phosphate thin film processing by pulsed laser deposition and in situ assisted ultraviolet pulsed laser deposition. Journal of Materials Science: Materials in Medicine, 2002, 13, 1167-1173.	3.6	36
116	Influence of the deposition configuration on the composition, structure and morphology of La0.6Y0.07Ca0.33MnO3â˜ thin films obtained by pulsed laser deposition. Solid State Sciences, 2001, 3, 1253-1256.	0.7	2
117	Role of laser pulse duration and gas pressure in deposition of AlN thin films. Journal of Applied Physics, 2001, 90, 456-461.	2.5	25
118	La2O3-doped BaTiO3thin films obtained by pulsed laser deposition. Journal of Modern Optics, 2001, 48, 2185-2189.	1.3	1
119	Theoretical and experimental parametric study of the synthesis process of TiN by reactive pulsed laser deposition. , 2001, , .		0
120	Monte Carlo simulation of transit of ablated atoms through ambient gas. , 2001, 4430, 275.		0
121	Influence of substrate orientation on the characteristics of Sr-ferrite thin films obtained by pulsed laser deposition. , 2001, , .		1
122	Influence of a TiN interlayer on the microstructure and mechanical properties of hydroxyapatite films grown by pulsed laser deposition. , 2001, 4397, 319.		0
123	Aspects in HTS laser ablation thin film technology and characterization. , 2001, 4397, 309.		0
124	La 2 O 3 -doped BaTiO 3 thin films obtained by pulsed laser deposition. Journal of Modern Optics, 2001, 48, 2185-2189.	1.3	1
125	Hydroxyapatite thin films growth by pulsed laser deposition: effects of the Ti alloys substrate passivation on the film properties by the insertion of a TiN buffer layer. , 2001, , .		0
126	Trap-assisted tunneling at temperatures near 77 K in laser annealed Si n+-p junctions. Journal of Applied Physics, 2001, 90, 860-865.	2.5	4

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127	Ablation study with a Nd:YAG laser in enhanced free-running regime. , 2001, , .		1
128	<title>Numerical description of the interactions between plasma and high-intensity UV laser pulses of nanosecond duration</title>. , 2000, 4070, 351.		0
129	Growth and characterization of pulsed laser-deposited Mnâ€“Zn ferrite thin films. Vacuum, 2000, 58, 294-299.	3.5	3
130	Sr-ferrite thin films grown on sapphire by pulsed laser deposition. Applied Surface Science, 2000, 168, 108-113.	6.1	22
131	Pulsed laser deposition of barium hexaferrite (BaFe12O19) thin films. Applied Surface Science, 2000, 154-155, 485-491.	6.1	28
132	Pulsed laser deposition of hydroxyapatite thin films on Ti-5Al-2.5Fe substrates with and without buffer layers. Applied Surface Science, 2000, 168, 127-131.	6.1	97
133	Structural comparison between La0.60Y0.07Ca0.33MnO3â˜Î´ bulk and pulsed laser deposited thin films. Journal of Magnetism and Magnetic Materials, 2000, 211, 54-60.	2.3	5
134	Pulsed-laser deposition of hydroxyapatite thin layer on Ti alloy collectors with and without buffer interlayers. , 1999, , .		1
135	Theoretical modelling of phenomena in the pulsed-laser deposition process: Application to Ti targets ablation in low-pressure N2. Journal of Applied Physics, 1999, 86, 6096-6106.	2.5	31
136	Heat transfer and propagation of plumes in laser reactive ablation of a Ti target in low-pressure N 2. , 1999, , .		0
137	AlN thin films obtained by pulsed laser deposition and reactive sputtering. , 0, , .		1
138	Sea Snail: An Alternative Source for Nano-Bioceramic Production. Key Engineering Materials, 0, 493-494, 781-786.	0.4	10
139	The Influence of the Foaming Agents on the Porosity of the PM Hydroxyapatite-Based Biocomposites Processed by Two-Step Sintering. Advanced Materials Research, 0, 1128, 178-186.	0.3	1
140	Pulsed Laser-Deposited TiO2-based Films: Synthesis, Electronic Structure and Photocatalytic Activity. , 0, , .		2
141	Biopolymer Thin Films Synthesized by Advanced Pulsed Laser Techniques. , 0, , .		10