

Valentin CrÄciun

List of Publications by Year in descending order

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96
papers

1,871
citations

279798

23
h-index

289244

40
g-index

99
all docs

99
docs citations

99
times ranked

2045
citing authors

#	ARTICLE	IF	CITATIONS
1	Insight into the plasma oxidation process during pulsed laser deposition. <i>Plasma Processes and Polymers</i> , 2022, 19, e2100102.	3.0	8
2	Tantalum-Titanium Oxynitride Thin Films Deposited by DC Reactive Magnetron Co-Sputtering: Mechanical, Optical, and Electrical Characterization. <i>Coatings</i> , 2022, 12, 36.	2.6	6
3	Langmuir Probe Perturbations during In Situ Monitoring of Pulsed Laser Deposition Plasmas. <i>Materials</i> , 2022, 15, 2769.	2.9	0
4	Structural and optical characteristics determined by the sputtering deposition conditions of oxide thin films. <i>Beilstein Journal of Nanotechnology</i> , 2021, 12, 354-365.	2.8	1
5	Langmuir Probe Technique for Plasma Characterization during Pulsed Laser Deposition Process. <i>Coatings</i> , 2021, 11, 762.	2.6	24
6	Qualitative Analysis of Remineralization Capabilities of Bioactive Glass (NovaMin) and Fluoride on Hydroxyapatite (HA) Discs: An In Vitro Study. <i>Materials</i> , 2021, 14, 3813.	2.9	9
7	In situ optical and electrical analysis of transient plasmas generated by ns-laser ablation for Ag nanostructured film production. <i>Vacuum</i> , 2021, 193, 110528.	3.5	11
8	On the Dynamics of Transient Plasmas Generated by Nanosecond Laser Ablation of Several Metals. <i>Materials</i> , 2021, 14, 7336.	2.9	5
9	Understanding pulsed laser deposition process of copper halides via plasma diagnostics techniques. <i>Journal of Applied Physics</i> , 2021, 130, 243302.	2.5	4
10	Microstructural investigations of 800 keV Ar ions irradiated nanocrystalline ZrN thin films. <i>Surface Engineering</i> , 2020, 36, 326-333.	2.2	5
11	Investigation of laser-produced plasma multistructuring by floating probe measurements and optical emission spectroscopy. <i>Plasma Processes and Polymers</i> , 2020, 17, 2000136.	3.0	11
12	Annealing and N ₂ Plasma Treatment to Minimize Corrosion of SiC-Coated Glass-Ceramics. <i>Materials</i> , 2020, 13, 2375.	2.9	5
13	Dissolution activation energy of a fluorapatite glass-ceramic veneer for dental applications. <i>Materials Science and Engineering C</i> , 2020, 111, 110802.	7.3	6
14	Multiple structure formation and molecule dynamics in transient plasmas generated by laser ablation of graphite. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2020, 165, 105774.	2.9	21
15	Rapid thermal annealing for high-quality ITO thin films deposited by radio-frequency magnetron sputtering. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1511-1522.	2.8	17
16	Microstructure of 800 keV Ar ion irradiated thin ZrC films. <i>Applied Surface Science</i> , 2018, 442, 773-777.	6.1	8
17	Optical properties of Ar ions irradiated nanocrystalline ZrC and ZrN thin films. <i>Journal of Nuclear Materials</i> , 2017, 488, 16-21.	2.7	17
18	Titanium implants™ surface functionalization by pulsed laser deposition of TiN, ZrC and ZrN hard films. <i>Applied Surface Science</i> , 2017, 417, 175-182.	6.1	21

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19	Pulsed laser deposition of HfO ₂ thin films on indium zinc oxide: Band offsets measurements. Applied Surface Science, 2017, 400, 77-80.	6.1	5
20	Gamma irradiation effects on the properties of indium zinc oxide thin films. Thin Solid Films, 2016, 614, 2-6.	1.8	9
21	Investigations of Ar ion irradiation effects on nanocrystalline SiC thin films. Applied Surface Science, 2016, 374, 339-345.	6.1	3
22	Structural and mechanical properties changes induced in nanocrystalline ZrC thin films by Ar ion irradiation. Journal of Nuclear Materials, 2016, 468, 78-83.	2.7	10
23	Ar ions irradiation effects in ZrN thin films grown by pulsed laser deposition. Applied Surface Science, 2015, 336, 129-132.	6.1	18
24	Mechanical properties of pulsed laser deposited nanocrystalline SiC films. Applied Surface Science, 2015, 336, 391-395.	6.1	11
25	Optical and mechanical properties of nanocrystalline ZrC thin films grown by pulsed laser deposition. Applied Surface Science, 2015, 352, 28-32.	6.1	17
26	Pulsed laser deposition of nanocrystalline SiC films. Applied Surface Science, 2014, 306, 66-69.	6.1	5
27	Wear tests of ZrC and ZrN thin films grown by pulsed laser deposition. Applied Surface Science, 2014, 306, 33-36.	6.1	26
28	Optical properties of amorphous indium zinc oxide thin films synthesized by pulsed laser deposition. Applied Surface Science, 2014, 306, 52-55.	6.1	15
29	Accurate analysis of indium-zinc oxide thin films via laser-induced breakdown spectroscopy based on plasma modeling. Journal of Analytical Atomic Spectrometry, 2014, 29, 553.	3.0	29
30	Quantitative analysis of amorphous indium zinc oxide thin films synthesized by Combinatorial Pulsed Laser Deposition. Applied Physics A: Materials Science and Processing, 2014, 117, 229-236.	2.3	5
31	The effect of deposition atmosphere on the chemical composition of TiN and ZrN thin films grown by pulsed laser deposition. Applied Surface Science, 2014, 302, 124-128.	6.1	21
32	Wear resistance of ZrC/TiN and ZrC/ZrN thin multilayers grown by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2013, 110, 717-722.	2.3	7
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34	Very hard ZrC thin films grown by pulsed laser deposition. Journal of the European Ceramic Society, 2013, 33, 2223-2226.	5.7	34
35	Band offsets in HfO ₂ /InGaZnO ₄ heterojunctions. Applied Physics Letters, 2012, 100, .	3.3	31
36	Very hard TiN thin films grown by pulsed laser deposition. Applied Surface Science, 2012, 260, 2-6.	6.1	22

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37	Pulsed laser deposition of transparent conductive oxide thin films on flexible substrates. Applied Surface Science, 2012, 260, 42-46.	6.1	62
38	Optical properties of amorphous-like indium zinc oxide and indium gallium zinc oxide thin films. Thin Solid Films, 2012, 520, 4722-4725.	1.8	42
39	Thin and hard ZrC/TiN multilayers grown by pulsed laser deposition. Surface and Coatings Technology, 2011, 205, 5493-5496.	4.8	15
40	High quality amorphous indium zinc oxide thin films synthesized by pulsed laser deposition. Thin Solid Films, 2011, 520, 1274-1277.	1.8	24
41	Characteristics of ZrC/ZrN and ZrC/TiN multilayers grown by pulsed laser deposition. Applied Surface Science, 2011, 257, 5332-5336.	6.1	32
42	Measurement of SiO ₂ /InZnGaO ₄ heterojunction band offsets by x-ray photoelectron spectroscopy. Applied Physics Letters, 2011, 98, .	3.3	36
43	Fabrication of compositional graded Si _{1-x} Gex layers by using thermal oxidation. Applied Physics Letters, 2009, 94, 202104.	3.3	6
44	Chemical composition of ZrC thin films grown by pulsed laser deposition. Applied Surface Science, 2009, 255, 5260-5263.	6.1	22
45	Amorphization and Solid-Phase Epitaxial Growth of C-Cluster Ion-Implanted Si. Journal of Electronic Materials, 2009, 38, 1926-1930.	2.2	4
46	Carrier concentration dependence of Ti ⁺ Au specific contact resistance on n-type amorphous indium zinc oxide thin films. Applied Physics Letters, 2008, 92, .	3.3	31
47	Growth optimization for high quality GaN films grown by metal-organic chemical vapor deposition. Materials Research Society Symposia Proceedings, 2008, 1068, 1.	0.1	0
48	High performance indium gallium zinc oxide thin film transistors fabricated on polyethylene terephthalate substrates. Applied Physics Letters, 2008, 93, .	3.3	107
49	Study of defects evolution in GaN layers grown by metal-organic chemical vapor deposition. Journal of Applied Physics, 2008, 103, .	2.5	16
50	Pulsed laser deposition of crystalline ZrC thin films. Thin Solid Films, 2007, 515, 4636-4639.	1.8	11
51	Low temperature nitrogen incorporation method for enhanced electrical properties in hafnia based gate dielectrics. Applied Physics Letters, 2006, 89, 242902.	3.3	10
52	ZnO and ZnO-Related Compounds. , 2006, , 261-289.		2
53	Epitaxial ZrC thin films grown by pulsed laser deposition. Applied Surface Science, 2006, 252, 4615-4618.	6.1	10
54	Improvement in electrical properties and thermal stability of low-temperature-processed Hf ⁺ Al ⁺ O gate dielectrics. Applied Physics Letters, 2006, 88, 182902.	3.3	13

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55	Solid Phase Recrystallization and Strain Relaxation in Ion-Implanted Strained Si on SiGe Heterostructures. Materials Research Society Symposia Proceedings, 2005, 864, 4281.	0.1	7
56	Highly conducting indium tin oxide films grown by ultraviolet-assisted pulsed laser deposition at low temperatures. Thin Solid Films, 2004, 453-454, 256-261.	1.8	27
57	Ferromagnetism of anatase Ti _{1-x} Co _x O ₂ films grown by ultraviolet-assisted pulsed laser deposition. Journal of Applied Physics, 2003, 93, 7873-7875.	2.5	11
58	Effect of Oxygen Pressure During ZnO:Al Coating of ZnS:Ag Phosphor on Cathodoluminescent Degradation Lifetime. Materials Research Society Symposia Proceedings, 2003, 780, 431.	0.1	0
59	Transient Electrochemical Measurements During Copper Chemical Mechanical Polishing. Materials Research Society Symposia Proceedings, 2003, 767, 1.	0.1	1
60	ZrC Thin Films Grown by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2003, 780, 3131.	0.1	0
61	Investigation of the Effect of Uv-Assisted Oxidation and Nitridation of Hafnium Metal Films. Materials Research Society Symposia Proceedings, 2003, 780, 551.	0.1	0
62	Interfacial layer formation during high-temperature annealing of ZrO ₂ thin films on Si. Applied Physics Letters, 2002, 81, 3431-3433.	3.3	40
63	Improved magnetic properties of self-assembled epitaxial nickel nanocrystallites in thin-film ceramic matrix. Journal of Materials Research, 2002, 17, 738-742.	2.6	10
64	Microstructural Study of Ultraviolet-Assisted Pulse Laser deposited Indium Tin Oxide Films. Materials Research Society Symposia Proceedings, 2002, 721, 1.	0.1	1
65	Nanoencapsulation of ZnS:Ag particulates with indium tin oxide for field emission displays. Applied Physics Letters, 2002, 80, 1927-1929.	3.3	32
66	Ultraviolet-Assisted Pulsed Laser Deposition of Barium Strontium Titanate on Si: Characterization of the Interfacial Layer. Materials Research Society Symposia Proceedings, 2002, 718, 1.	0.1	0
67	Synthesis and Processing of High Capacity, High Cycle life and High Discharge Rate Defective Manganospinel films for Rechargeable batteries. Materials Research Society Symposia Proceedings, 2002, 730, 1.	0.1	0
68	Photonic effects during low-temperature ultraviolet-assisted oxidation of SiGe. Journal of Electronic Materials, 2002, 31, 1325-1329.	2.2	2
69	Characterization of the interfacial layer formed during pulsed laser deposition of oxides on Si. Materials Research Society Symposia Proceedings, 2001, 666, 1141.	0.1	2
70	Nano-Encapsulated ZnS:Ag Phosphors for Field Emission Flat Panel Display Applications. Materials Research Society Symposia Proceedings, 2001, 704, 841.	0.1	3
71	Growth of dense SiC films on Si at medium temperatures by pulsed laser deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 2691-2694.	2.1	10
72	Low Temperature Growth Of Barium Strontium Titanate Films By Ultraviolet-Assisted Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2000, 617, 3211.	0.1	1

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73	Characteristics of Ultra violet-Assisted Pulsed Laser Deposited Thin Oxide Films. Materials Research Society Symposia Proceedings, 2000, 623, 305.	0.1	0
74	Room Temperature Growth of Indium Tin Oxide Films By Ultraviolet-Assisted Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2000, 617, 1.	0.1	12
75	Characteristics of ultraviolet-assisted pulsed-laser-deposited $Y_{2}O_{3}$ thin films. Journal of Materials Research, 2000, 15, 488-494.	2.6	18
76	Enhancement of cathodoluminescent and photoluminescent properties of Eu:Y ₂ O ₃ luminescent films by vacuum cooling. Applied Physics Letters, 2000, 77, 2518-2520.	3.3	43
77	Characteristics of the surface layer of barium strontium titanate thin films deposited by laser ablation. Applied Physics Letters, 2000, 76, 1932-1934.	3.3	167
78	Enhanced electrical properties of Ba _{0.5} Sr _{0.5} TiO ₃ thin films grown by ultraviolet-assisted pulsed-laser deposition. Applied Physics Letters, 1999, 75, 3002-3004.	3.3	32
79	Characteristics of dielectric layers formed by low-temperature vacuum ultraviolet-assisted oxidation of SiGe layers. Journal of Materials Research, 1999, 14, 3525-3529.	2.6	6
80	Low-temperature growth of epitaxial ZnO films on (001) sapphire by ultraviolet- assisted pulsed laser deposition. Applied Physics A: Materials Science and Processing, 1999, 69, S531-S533.	2.3	35
81	Low-temperature growth of Y ₂ O ₃ thin films by ultraviolet-assisted pulsed laser deposition. Applied Physics A: Materials Science and Processing, 1999, 69, S535-S538.	2.3	34
82	Characteristics of Ba _{0.5} Sr _{0.5} TiO ₃ thin films grown by ultraviolet-assisted pulsed laser deposition. Applied Physics A: Materials Science and Processing, 1999, 69, S787-S789.	2.3	9
83	Droplet formation during extended time pulsed laser deposition of La _{0.5} Sr _{0.5} CoO ₃ thin layers. Journal of Applied Physics, 1999, 85, 3310-3313.	2.5	11
84	Luminescent Characteristics of Pulsed Laser Deposited Epitaxial Eu-Doped Y ₂ O ₃ Films. Materials Research Society Symposia Proceedings, 1999, 574, 11.	0.1	0
85	Ultraviolet Assisted Pulsed Laser Deposition of Thin Oxide Films. Materials Research Society Symposia Proceedings, 1999, 574, 193.	0.1	0
86	Pulsed laser deposition and characterization of LiMn ₂ O ₄ thin Films for applications in Li Ion rechargeable battery systems. Materials Research Society Symposia Proceedings, 1999, 575, 83.	0.1	1
87	Light emission from germanium nanoparticles formed by ultraviolet assisted oxidation of silicon-germanium. Applied Physics Letters, 1996, 69, 1506-1508.	3.3	58
88	Low temperature growth of highly transparent c-axis oriented ZnO thin films by pulsed laser deposition. Microelectronic Engineering, 1994, 25, 321-326.	2.4	82
89	Characteristics of high quality ZnO thin films deposited by pulsed laser deposition. Applied Physics Letters, 1994, 65, 2963-2965.	3.3	264
90	Reactive pulsed laser deposition of thin TiN films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1993, 18, 178-180.	3.5	38

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91	Pulsed Laser Deposition of High Quality ZnO Thin Films. Materials Research Society Symposia Proceedings, 1992, 285, 489.	0.1	7
92	Growth of Cerium Oxide Buffer Layers and Superconducting thin films on Silicon. Materials Research Society Symposia Proceedings, 1992, 275, 501.	0.1	2
93	Titanium Oxynitride Thin Film Deposition by Pulsed Laser Ablation of Titanium Targets in Nitrogen. Materials Research Society Symposia Proceedings, 1992, 285, 337.	0.1	2
94	Characteristics of CdTe films of different compositions fabricated by CMBD. , 0, , .		2
95	Growth and characterization of CdZnS thin film buffer layers by chemical bath deposition. , 0, , .		5
96	Robust stability of optical and electronic properties of gallium doped zinc oxide thin films to gamma ray irradiation. Physica Status Solidi (B): Basic Research, 0, , .	1.5	1