

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	Characteristics of high quality ZnO thin films deposited by pulsed laser deposition. Applied Physics Letters, 1994, 65, 2963-2965.	3.3	264
2	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
3	High performance indium gallium zinc oxide thin film transistors fabricated on polyethylene terephthalate substrates. Applied Physics Letters, 2008, 93, .	3.3	107
4	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
5	Pulsed laser deposition of transparent conductive oxide thin films on flexible substrates. Applied Surface Science, 2012, 260, 42-46.	6.1	62
6	Light emission from germanium nanoparticles formed by ultraviolet assisted oxidation of silicon-germanium. Applied Physics Letters, 1996, 69, 1506-1508.	3.3	58
7	Enhancement of cathodoluminescent and photoluminescent properties of Eu:Y2O3 luminescent films by vacuum cooling. Applied Physics Letters, 2000, 77, 2518-2520.	3.3	43
8	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
9	Interfacial layer formation during high-temperature annealing of ZrO2 thin films on Si. Applied Physics Letters, 2002, 81, 3431-3433.	3.3	40
10	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
11	Measurement of SiO2/InZnGaO4 heterojunction band offsets by x-ray photoelectron spectroscopy. Applied Physics Letters, 2011, 98, .	3.3	36
12	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
13	Low-temperature growth of Y2O3 thin films by ultraviolet-assisted pulsed laser deposition. Applied Physics A: Materials Science and Processing, 1999, 69, S535-S538.	2.3	34
14	Very hard ZrC thin films grown by pulsed laser deposition. Journal of the European Ceramic Society, 2013, 33, 2223-2226.	5.7	34
15	Enhanced electrical properties of Ba0.5Sr0.5TiO3 thin films grown by ultraviolet-assisted pulsed-laser deposition. Applied Physics Letters, 1999, 75, 3002-3004.	3.3	32
16	Nanoencapsulation of ZnS:Ag particulates with indium tin oxide for field emission displays. Applied Physics Letters, 2002, 80, 1927-1929.	3.3	32
17	Characteristics of ZrC/ZrN and ZrC/TiN multilayers grown by pulsed laser deposition. Applied Surface Science, 2011, 257, 5332-5336.	6.1	32
18	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

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19	Band offsets in HfO ₂ /InGaZnO ₄ heterojunctions. Applied Physics Letters, 2012, 100, .	3.3	31
20	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
21	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
22	Wear tests of ZrC and ZrN thin films grown by pulsed laser deposition. Applied Surface Science, 2014, 306, 33-36.	6.1	26
23	High quality amorphous indium zinc oxide thin films synthesized by pulsed laser deposition. Thin Solid Films, 2011, 520, 1274-1277.	1.8	24
24	Langmuir Probe Technique for Plasma Characterization during Pulsed Laser Deposition Process. Coatings, 2021, 11, 762.	2.6	24
25	Chemical composition of ZrC thin films grown by pulsed laser deposition. Applied Surface Science, 2009, 255, 5260-5263.	6.1	22
26	Very hard TiN thin films grown by pulsed laser deposition. Applied Surface Science, 2012, 260, 2-6.	6.1	22
27	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
28	Titanium implants™ surface functionalization by pulsed laser deposition of TiN, ZrC and ZrN hard films. Applied Surface Science, 2017, 417, 175-182.	6.1	21
29	Multiple structure formation and molecule dynamics in transient plasmas generated by laser ablation of graphite. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 165, 105774.	2.9	21
30	Characteristics of ultraviolet-assisted pulsed-laser-deposited Y ₂ O ₃ thin films. Journal of Materials Research, 2000, 15, 488-494.	2.6	18
31	Ar ions irradiation effects in ZrN thin films grown by pulsed laser deposition. Applied Surface Science, 2015, 336, 129-132.	6.1	18
32	Optical and mechanical properties of nanocrystalline ZrC thin films grown by pulsed laser deposition. Applied Surface Science, 2015, 352, 28-32.	6.1	17
33	Optical properties of Ar ions irradiated nanocrystalline ZrC and ZrN thin films. Journal of Nuclear Materials, 2017, 488, 16-21.	2.7	17
34	Rapid thermal annealing for high-quality ITO thin films deposited by radio-frequency magnetron sputtering. Beilstein Journal of Nanotechnology, 2019, 10, 1511-1522.	2.8	17
35	Study of defects evolution in GaN layers grown by metal-organic chemical vapor deposition. Journal of Applied Physics, 2008, 103, .	2.5	16
36	Thin and hard ZrC/TiN multilayers grown by pulsed laser deposition. Surface and Coatings Technology, 2011, 205, 5493-5496.	4.8	15

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37	Optical properties of amorphous indium zinc oxide thin films synthesized by pulsed laser deposition. Applied Surface Science, 2014, 306, 52-55.	6.1	15
38	Improvement in electrical properties and thermal stability of low-temperature-processed HfO ₂ /Al ₂ O ₃ gate dielectrics. Applied Physics Letters, 2006, 88, 182902.	3.3	13
39	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
40	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
41	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
42	Pulsed laser deposition of crystalline ZrC thin films. Thin Solid Films, 2007, 515, 4636-4639.	1.8	11
43	Mechanical properties of pulsed laser deposited nanocrystalline SiC films. Applied Surface Science, 2015, 336, 391-395.	6.1	11
44	Investigation of laser-produced plasma multistructuring by floating probe measurements and optical emission spectroscopy. Plasma Processes and Polymers, 2020, 17, 2000136.	3.0	11
45	In situ optical and electrical analysis of transient plasmas generated by ns-laser ablation for Ag nanostructured film production. Vacuum, 2021, 193, 110528.	3.5	11
46	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
47	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
48	Low temperature nitrogen incorporation method for enhanced electrical properties in hafnia based gate dielectrics. Applied Physics Letters, 2006, 89, 242902.	3.3	10
49	Epitaxial ZrC thin films grown by pulsed laser deposition. Applied Surface Science, 2006, 252, 4615-4618.	6.1	10
50	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
51	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
52	Gamma irradiation effects on the properties of indium zinc oxide thin films. Thin Solid Films, 2016, 614, 2-6.	1.8	9
53	Qualitative Analysis of Remineralization Capabilities of Bioactive Glass (NovaMin) and Fluoride on Hydroxyapatite (HA) Discs: An In Vitro Study. Materials, 2021, 14, 3813.	2.9	9
54	Microstructure of 800 keV Ar ion irradiated thin ZrC films. Applied Surface Science, 2018, 442, 773-777.	6.1	8

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55	Insight into the plasma oxidation process during pulsed laser deposition. Plasma Processes and Polymers, 2022, 19, e2100102.	3.0	8
56	Pulsed Laser Deposition of High Quality ZnO Thin Films. Materials Research Society Symposia Proceedings, 1992, 285, 489.	0.1	7
57	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
58	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
59	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
60	Fabrication of compositional graded Si $_{1-x}$ Ge $_x$ layers by using thermal oxidation. Applied Physics Letters, 2009, 94, 202104.	3.3	6
61	Dissolution activation energy of a fluorapatite glass-ceramic veneer for dental applications. Materials Science and Engineering C, 2020, 111, 110802.	7.3	6
62	Tantalum-Titanium Oxynitride Thin Films Deposited by DC Reactive Magnetron Co-Sputtering: Mechanical, Optical, and Electrical Characterization. Coatings, 2022, 12, 36.	2.6	6
63	Growth and characterization of CdZnS thin film buffer layers by chemical bath deposition. , 0, , . Stoichiometry dependence of the optical properties of amorphous-like In		5
64	Stoichiometry dependence of the optical properties of amorphous-like In		5
65	Pulsed laser deposition of nanocrystalline SiC films. Applied Surface Science, 2014, 306, 66-69.	6.1	5
66	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
67	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
68	Microstructural investigations of 800 eV Ar ions irradiated nanocrystalline ZrN thin films. Surface Engineering, 2020, 36, 326-333.	2.2	5
69	Annealing and N ₂ Plasma Treatment to Minimize Corrosion of SiC-Coated Glass-Ceramics. Materials, 2020, 13, 2375.	2.9	5
70	On the Dynamics of Transient Plasmas Generated by Nanosecond Laser Ablation of Several Metals. Materials, 2021, 14, 7336.	2.9	5
71	Amorphization and Solid-Phase Epitaxial Growth of C-Cluster Ion-Implanted Si. Journal of Electronic Materials, 2009, 38, 1926-1930.	2.2	4
72	Understanding pulsed laser deposition process of copper halides via plasma diagnostics techniques. Journal of Applied Physics, 2021, 130, 243302.	2.5	4

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73	Nano-Encapsulated ZnS:Ag Phosphors for Field Emission Flat Panel Display Applications. Materials Research Society Symposia Proceedings, 2001, 704, 841.	0.1	3
74	Investigations of Ar ion irradiation effects on nanocrystalline SiC thin films. Applied Surface Science, 2016, 374, 339-345.	6.1	3
75	Growth of Cerium Oxide Buffer Layers and Superconducting thin films on Silicon. Materials Research Society Symposia Proceedings, 1992, 275, 501.	0.1	2
76	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
77	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
78	Photonic effects during low-temperature ultraviolet-assisted oxidation of SiGe. Journal of Electronic Materials, 2002, 31, 1325-1329.	2.2	2
79	Characteristics of CdTe films of different compositions fabricated by CMBD. , 0, , .		2
80	ZnO and ZnO-Related Compounds. , 2006, , 261-289.		2
81	Pulsed laser deposition and characterization of LiMn2O4 thin Films for applications in Li Ion rechargeable battery systems. Materials Research Society Symposia Proceedings, 1999, 575, 83.	0.1	1
82	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
83	Microstructural Study of Ultraviolet-Assisted Pulse Laser deposited Indium Tin Oxide Films. Materials Research Society Symposia Proceedings, 2002, 721, 1.	0.1	1
84	Transient Electrochemical Measurements During Copper Chemical Mechanical Polishing. Materials Research Society Symposia Proceedings, 2003, 767, 1.	0.1	1
85	Structural and optical characteristics determined by the sputtering deposition conditions of oxide thin films. Beilstein Journal of Nanotechnology, 2021, 12, 354-365.	2.8	1
86	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
87	Luminescent Characteristics of Pulsed Laser Deposited Epitaxial Eu-Doped Y2O3 Films. Materials Research Society Symposia Proceedings, 1999, 574, 11.	0.1	0
88	Ultraviolet Assisted Pulsed Laser Deposition of Thin Oxide Films. Materials Research Society Symposia Proceedings, 1999, 574, 193.	0.1	0
89	Characteristics of Ultra violet-Assisted Pulsed Laser Deposited Thin Oxide Films. Materials Research Society Symposia Proceedings, 2000, 623, 305.	0.1	0
90	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

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91	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
92	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
93	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
94	ZrC Thin Films Grown by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2003, 780, 3131.	0.1	0
95	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
96	Langmuir Probe Perturbations during In Situ Monitoring of Pulsed Laser Deposition Plasmas. Materials, 2022, 15, 2769.	2.9	0