Paul Mirkarimi

List of Publications by Year
in descending order

73	3,550	186265 28	133252 59
papers	citations	h-index	g-index

74	74	74	2027
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of substrate temperature on sputter-deposited boron carbide films. Journal of Applied Physics, 2022, 131, .	2.5	7
2	Oblique angle deposition of boron carbide films by magnetron sputtering. Journal of Applied Physics, 2021, 130, .	2.5	8
3	Sputter-deposited low-stress boron carbide films. Journal of Applied Physics, 2020, 128, .	2.5	11
4	Origin and effect of film sub-stoichiometry on ultraviolet, ns-laser damage resistance of hafnia single layers. Optical Materials Express, 2020, 10, 937.	3.0	9
5	Aperiodic x-ray multilayer interference coatings with high reflectance and large field of view. , 2018, , .		1
6	Fiber-Coupled Substrate-Integrated Hollow Waveguides: An Innovative Approach to Mid-infrared Remote Gas Sensors. ACS Sensors, 2017, 2, 1287-1293.	7.8	26
7	Impact of laser-contaminant interaction on the performance of the protective capping layer of 1ÂÏ‰ high-reflection mirror coatings. Applied Optics, 2015, 54, 8607.	2.1	32
8	Substrate and coating defect planarization strategies for high-laser-fluence multilayer mirrors. Thin Solid Films, 2015, 592, 216-220.	1.8	19
9	A geophysical shock and air blast simulator at the National Ignition Facility. Review of Scientific Instruments, 2014, 85, 095119.	1.3	6
10	A Kirkpatrick-Baez microscope for the National Ignition Facility. Review of Scientific Instruments, 2014, 85, 11D611.	1.3	23
11	Energetics measurements of silver halfraum targets at the National Ignition Facility. High Energy Density Physics, 2014, 11, 45-58.	1.5	2
12	Engineering precision relocation capability into a large-cantilevered telescoping diagnostic for a Kirkpatrick Baez x-ray Optic. Proceedings of SPIE, 2014, , .	0.8	3
13	Ultra-short-period WC/SiC multilayer coatings for x-ray applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 710, 114-119.	1.6	25
14	Substrate-Integrated Hollow Waveguides: A New Level of Integration in Mid-Infrared Gas Sensing. Analytical Chemistry, 2013, 85, 11205-11210.	6.5	89
15	Fabrication and Metrology Challenges in Making Thin, Hollow, Silver Spherical Halfraum Targets for EPEC Experiments on the National Ignition Facility. Fusion Science and Technology, 2013, 63, 242-246.	1.1	2
16	Recent Advances in the Fabrication of Very Thick, Multistepped Iron and Tantalum Films for EOS Targets. Fusion Science and Technology, 2013, 63, 282-287.	1.1	3
17	Soft x-ray images of the laser entrance hole of ignition hohlraums. Review of Scientific Instruments, 2012, 83, 10E525.	1.3	22
18	Thick, Multistepped Iron and Tantalum Targets for Equation-of-State Measurements at High Pressures and Low Temperatures. Fusion Science and Technology, 2011, 59, 133-138.	1.1	2

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19	Ion beam deposition for defect-free EUVL mask blanks. Proceedings of SPIE, 2009, , .	0.8	0
20	Fabrication and performance of nanoscale ultrasmooth programed defects for extreme ultraviolet lithography. Journal of Vacuum Science & Technology B, 2008, 26, 6.	1.3	4
21	Ion beam deposition for defect-free EUVL mask blanks. Proceedings of SPIE, 2008, , .	0.8	4
22	Characterization of ruthenium thin films as capping layer for extreme ultraviolet lithography mask blanks. Journal of Vacuum Science & Technology B, 2007, 25, 1859.	1.3	13
23	Growth and printability of multilayer phase defects on extreme ultraviolet mask blanks. Journal of Vacuum Science & Technology B, 2007, 25, 2098.	1.3	15
24	Defect mitigation and reduction in EUVL mask blanks. , 2007, , .		5
25	Employing a detailed compositional analysis to develop a low defect Mo/Si deposition tool and process for EUVL mask blanks. Microelectronic Engineering, 2006, 83, 695-698.	2.4	2
26	Progress towards the development of a commercial tool and process for EUVL mask blanks. , 2005, , .		8
27	Advancing the ion beam thin film planarization process for the smoothing of substrate particles. Microelectronic Engineering, 2005, 77, 369-381.	2.4	14
28	Low temperature growth of nanostructured diamond on quartz spheres. Journal Physics D: Applied Physics, 2005, 38, 1410-1414.	2.8	13
29	Ultrathick, low-stress nanostructured diamond films. Applied Physics Letters, 2005, 86, 221914.	3.3	15
30	Recent progress in the fabrication of low defect density mask blanks. , 2005, , .		2
31	Repair of phase defects in extreme-ultraviolet lithography mask blanks. Journal of Applied Physics, 2004, 96, 6812-6821.	2.5	9
32	Localized defects in multilayer coatings. Thin Solid Films, 2004, 446, 37-49.	1.8	64
33	Fabrication of high-efficiency multilayer-coated gratings for the EUV regime using e-beam patterned substrates. Optics Communications, 2004, 229, 109-116.	2.1	20
34	Developing a viable multilayer coating process for extreme ultraviolet lithography reticles. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2004, 3, 139.	0.9	15
35	Repairing amplitude defects in multilayer-coated extreme-ultraviolet lithography reticles by use of a focused ion beam. Applied Optics, 2004, 43, 6545.	2.1	3
36	Lithographic characterization of the printability of programmed extreme ultraviolet substrate defects. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1286.	1.6	7

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37	Method for repairing Mo/Si multilayer thin film phase defects in reticles for extreme ultraviolet lithography. Journal of Applied Physics, 2002, 91, 81.	2.5	22
38	Practical approach for modeling extreme ultraviolet lithography mask defects. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 81.	1.6	64
39	Characterization of extreme ultraviolet lithography mask defects by actinic inspection with broadband extreme ultraviolet illumination. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 3000.	1.6	5
40	Sub-70 nm extreme ultraviolet lithography at the Advanced Light Source static microfield exposure station using the engineering test stand set-2 optic. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 2829.	1.6	37
41	Recovery of multilayer-coated Zerodur and ULE optics for extreme-ultraviolet lithography by recoating, reactive-ion etching, and wet-chemical processes. Applied Optics, 2001, 40, 62.	2.1	8
42	An ion-assisted Mo-Si deposition process for planarizing reticle substrates for extreme ultraviolet lithography. IEEE Journal of Quantum Electronics, 2001, 37, 1514-1516.	1.9	21
43	Technique employing gold nanospheres to study defect evolution in thin films. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 628.	1.6	10
44	Simulations and Argon-Cluster-Ion Smoothing of Surfaces. Materials Research Society Symposia Proceedings, 2000, 647, 1.	0.1	1
45	Effects of smoothing on defect printability at extreme ultraviolet wavelengths. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 2944.	1.6	9
46	Mo/Si and Mo/Be multilayer thin films on Zerodur substrates for extreme-ultraviolet lithography. Applied Optics, 2000, 39, 1617.	2.1	32
47	Investigating the growth of localized defects in thin films using gold nanospheres. Applied Physics Letters, 2000, 77, 2243-2245.	3.3	48
48	Stress, reflectance, and temporal stability of sputter-deposited Mo/Si and Mo/Be multilayer films for extreme ultraviolet lithography. Optical Engineering, 1999, 38, 1246.	1.0	53
49	Orientation-dependence of elastic strain energy in hexagonal and cubic boron nitride layers in energetically deposited BN films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 196-200.	2.1	33
50	The synthesis, characterization, and mechanical properties of thick, ultrahard cubic boron nitride films deposited by ion-assisted sputtering. Journal of Applied Physics, 1997, 82, 1617-1625.	2.5	97
51	Thick stress-free amorphous-tetrahedral carbon films with hardness near that of diamond. Applied Physics Letters, 1997, 71, 3820-3822.	3.3	295
52	Review of advances in cubic boron nitride film synthesis. Materials Science and Engineering Reports, 1997, 21, 47-100.	31.8	567
53	Analysis of residual stress in cubic boron nitride thin films using micromachined cantilever beams. Diamond and Related Materials, 1996, 5, 1295-1302.	3.9	62
54	On the low-temperature threshold for cubic boron nitride formation in energetic film deposition. Diamond and Related Materials, 1996, 5, 1519-1526.	3.9	24

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55	Substrate effects in cubic boron nitride film formation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 251-255.	2.1	49
56	Micromachined silicon cantilever beams for thin-film stress measurement. Thin Solid Films, 1996, 287, 214-219.	1.8	11
57	Crystallographic texture in cubic boron nitride thin films. Journal of Applied Physics, 1996, 79, 3567-3571.	2.5	56
58	Growth of cubic BN films on Î²â€SiC by ionâ€assisted pulsed laser deposition. Applied Physics Letters, 1995, 66, 2813-2815.	3.3	77
59	Evaluation Of Amorphous Diamond-Like Carbon And Boron Nitride Films As Low Permittivity Dielectrics. Materials Research Society Symposia Proceedings, 1995, 381, 273.	0.1	11
60	Structure and mechanical properties of epitaxial TiN/V_{0.3}Nb_{0.7}N(100) superlattices. Journal of Materials Research, 1994, 9, 1456-1467.	2.6	86
61	On the role of ions in the formation of cubic boron nitride films by ion-assisted deposition. Journal of Materials Research, 1994, 9, 2925-2938.	2.6	201
62	Microstructure of cubic boron nitride thin films grown by ionâ€assisted pulsed laser deposition. Journal of Applied Physics, 1994, 76, 295-303.	2.5	102
63	Evidence for rhombohedral boron nitride in cubic boron nitride films grown by ion-assisted deposition. Physical Review B, 1994, 50, 7884-7887.	3.2	46
64	Effects of ambient conditions on the adhesion of cubic boron nitride films on silicon substrates. Thin Solid Films, 1994, 253, 130-135.	1.8	61
65	Characterization of misfit dislocations in epitaxial (001)-oriented TiN, NbN, VN, and (Ti,Nb) N film heterostructures by transmission electron microscopy. Journal of Crystal Growth, 1994, 135, 309-317.	1.5	78
66	Ionâ€assisted pulsed laser deposition of cubic boron nitride films. Journal of Applied Physics, 1994, 76, 3088-3101.	2.5	235
67	Nucleation of lattice-mismatched transition-metal nitride films: limitations on super-lattice growth. Surface Science, 1993, 281, 1-9.	1.9	10
68	Acoustic-microscopy measurements of the elastic properties of TiN/(VxNb1â^'x)N superlattices. Physical Review B, 1993, 48, 1726-1737.	3.2	41
69	Mechanical properties of epitaxial TiN/(V0.6Nb0.4)N superlattices measured by nanoindentation. Journal of Applied Physics, 1992, 72, 4466-4468.	2.5	23
70	An ultrahigh vacuum, magnetron sputtering system for the growth and analysis of nitride superlattices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 75-81.	2.1	48
71	Elastic properties of TiN/(VxNb1â^'x)N superlattices measured by Brillouin scattering. Journal of Applied Physics, 1992, 71, 4955-4958.	2.5	48
72	Elastic constants of singleâ€crystal transitionâ€metal nitride films measured by lineâ€focus acoustic microscopy. Journal of Applied Physics, 1992, 72, 1805-1811.	2.5	307

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73	Enhanced hardness in latticeâ€matched singleâ€crystal TiN/V0.6Nb0.4N superlattices. Applied Physics Letters, 1990, 57, 2654-2656.	3.3	167