

Michael Stürmer

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6717481/publications.pdf>

Version: 2024-02-01

93
papers

3,384
citations

270111

25
h-index

169272

56
g-index

94
all docs

94
docs citations

94
times ranked

3831
citing authors

#	ARTICLE	IF	CITATIONS
1	Cathodic Protection of Mild Steel Using Aluminium-Based Alloys. <i>Materials</i> , 2022, 15, 1301.	1.3	11
2	Which factor determines the optical losses in refractory tungsten thin films at high temperatures?. <i>Applied Surface Science</i> , 2022, 588, 152927.	3.1	5
3	Structural degradation of tungsten sandwiched in hafnia layers determined by in-situ XRD up to 1520°C. <i>Scientific Reports</i> , 2021, 11, 3330.	1.6	15
4	Unprecedented Thermal Stability of Plasmonic Titanium Nitride Films up to 1400 °C. <i>Advanced Optical Materials</i> , 2021, 9, 2100323.	3.6	34
5	Optical Properties of the Refractory Metals at High Temperatures. , 2021, , .		0
6	Thermal stability of tungsten based metamaterial emitter under medium vacuum and inert gas conditions. <i>Scientific Reports</i> , 2020, 10, 3605.	1.6	34
7	Spectrally selective emitters stable up to 1400.C for thermophotovoltaic applications. , 2020, , .		0
8	Metamaterial emitter for thermophotovoltaics stable up to 1400°C. <i>Scientific Reports</i> , 2019, 9, 7241.	1.6	64
9	The SASE1 X-ray beam transport system. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 692-699.	1.0	11
10	High Temperature Optical Metamaterials. , 2019, , .		0
11	Metrology of MID offset mirrors before and after coating. , 2019, , .		0
12	Experimental study of EUV mirror radiation damage resistance under long-term free-electron laser exposures below the single-shot damage threshold. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 77-84.	1.0	16
13	Mechanism of single-shot damage of Ru thin films irradiated by femtosecond extreme UV free-electron laser. <i>Optics Express</i> , 2018, 26, 19665.	1.7	20
14	Coatings for FEL optics: preparation and characterization of B4C and Pt. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 116-122.	1.0	16
15	Contrasting behavior of covalent and molecular carbon allotropes exposed to extreme ultraviolet and soft x-ray free-electron laser radiation. <i>Physical Review B</i> , 2017, 96, .	1.1	12
16	Growth of nano-dots on the grazing incidence mirror surface under FEL irradiation: analytic approach to modeling. , 2017, , .		0
17	Refractory absorber/emitter using monolayer of ceramic microparticles. , 2016, , .		1
18	Neutron study of phospholipids 1-palmitoyl-2-oleoyl-sn-glycero-3-phospho-ethanolamine spray coating on titanium implants. <i>Biointerphases</i> , 2016, 11, 011002.	0.6	2

#	ARTICLE	IF	CITATIONS
19	Ultra-precision fabrication of 500 mm long and laterally graded Ru/C multilayer mirrors for X-ray light sources. Review of Scientific Instruments, 2016, 87, 051804.	0.6	12
20	Radiative engineering with refractory epsilon-near-zero metamaterials (Conference Presentation)., 2016, , .		0
21	Controlling thermal emission with refractory epsilon-near-zero metamaterials via topological transitions. Nature Communications, 2016, 7, 11809.	5.8	233
22	Growth of nano-dots on the grazing-incidence mirror surface under FEL irradiation. Journal of Synchrotron Radiation, 2016, 23, 78-90.	1.0	8
23	Preparation and characterization of B ₄ C coatings for advanced research light sources. Journal of Synchrotron Radiation, 2016, 23, 50-58.	1.0	19
24	Time evolution of electron structure in femtosecond heated warm dense molybdenum. Physical Review B, 2015, 92, .	1.1	20
25	Fluence thresholds for grazing incidence hard x-ray mirrors. Applied Physics Letters, 2015, 106, .	1.5	41
26	Towards simultaneous measurements of electronic and structural properties in ultra-fast x-ray free electron laser absorption spectroscopy experiments. Scientific Reports, 2015, 4, 4724.	1.6	23
27	Trends on multilayer X-ray optics and scatterless pinholes. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s502-s502.	0.0	0
28	Comparative study of the X-ray reflectivity and in-depth profile of a-C, B ₄ C and Ni coatings at 0.1 keV. Journal of Synchrotron Radiation, 2015, 22, 348-353.	1.0	10
29	Boron carbide coatings for neutron detection probed by x-rays, ions, and neutrons to determine thin film quality. Journal of Applied Physics, 2015, 117, 034901.	1.1	28
30	Tungsten band edge absorber/emitter based on a monolayer of ceramic microspheres. Optics Express, 2015, 23, A1236.	1.7	22
31	Degradation behavior of PEO coating on AM50 magnesium alloy produced from electrolytes with clay particle addition. Surface and Coatings Technology, 2015, 269, 155-169.	2.2	90
32	On the characterization of ultra-precise X-ray optical components: advances and challenges in metrology. Journal of Synchrotron Radiation, 2014, 21, 968-975.	1.0	59
33	Preparation and characterization of x-ray mirrors with three single layers of a-C, B ₄ C, and Ni onto two 820-mm long Si substrate. Proceedings of SPIE, 2014, , .	0.8	0
34	Results from single shot grazing incidence hard x-ray damage measurements conducted at the SACLA FEL. , 2013, , .		4
35	Gold-silicon metamaterial with hyperbolic transition in near infrared. Applied Physics Letters, 2013, 103, .	1.5	11
36	GEM-based thermal neutron beam monitors for spallation sources. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 217-220.	0.7	37

#	ARTICLE	IF	CITATIONS
37	X-ray and neutron investigation of self-assembled lipid layers on a titanium surface. <i>Biointerphases</i> , 2013, 8, 21.	0.6	17
38	Performance of pulsed constant current silicate-based PEO coating on pure magnesium in simulated body fluid. <i>Materials Letters</i> , 2013, 106, 18-21.	1.3	43
39	Amorphous to crystalline phase transition in carbon induced by intense femtosecond x-ray free-electron laser pulses. <i>Physical Review B</i> , 2012, 86, .	1.1	34
40	Investigating the interaction of x-ray free electron laser radiation with grating structure. <i>Optics Letters</i> , 2012, 37, 3033.	1.7	16
41	The formation of Sr _{6.33} Mg _{16.67} Si ₁₃ in magnesium alloy AM50 and its effect on mechanical properties. <i>Journal of Materials Science</i> , 2012, 47, 5461-5469.	1.7	2
42	Interpretation of Glancing Angle and Bragg-Brentano XRD Measurements for CoCr Alloy and Austenitic Stainless Steel After PIII Nitriding. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 3056-3060.	0.6	17
43	Development of x-ray optics for advanced research light sources. <i>Proceedings of SPIE</i> , 2011, , .	0.8	12
44	Damage threshold of amorphous carbon mirror for 177eV FEL radiation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 635, S39-S42.	0.7	9
45	Picosecond time-resolved x-ray reflectivity of a laser-heated amorphous carbon film. <i>Applied Physics Letters</i> , 2011, 98, 101909.	1.5	11
46	A preliminary study of calcium containing plasma electrolytic oxidation coatings on AM50 magnesium alloy. <i>Journal of Materials Science</i> , 2010, 45, 1406-1410.	1.7	23
47	Magnesium alloys as implant materials – Principles of property design for Mg-RE alloys†. <i>Acta Biomaterialia</i> , 2010, 6, 1714-1725.	4.1	503
48	Effect of pulse frequency on the microstructure, phase composition and corrosion performance of a phosphate-based plasma electrolytic oxidation coated AM50 magnesium alloy. <i>Applied Surface Science</i> , 2010, 256, 3928-3935.	3.1	116
49	Characterization of calcium containing plasma electrolytic oxidation coatings on AM50 magnesium alloy. <i>Applied Surface Science</i> , 2010, 256, 4017-4022.	3.1	85
50	Single-layer mirrors for advanced research light sources. <i>AIP Conference Proceedings</i> , 2010, , .	0.3	7
51	Characterisation of tribological and corrosion behaviour of plasma electrolytic oxidation coated AM50 magnesium alloy. <i>Surface Engineering</i> , 2010, 26, 340-346.	1.1	35
52	Development of decorative and corrosion resistant plasma electrolytic oxidation coatings on AM50 magnesium alloy. <i>Surface Engineering</i> , 2010, 26, 367-370.	1.1	31
53	Spot size characterization of focused non-Gaussian X-ray laser beams. <i>Optics Express</i> , 2010, 18, 27836.	1.7	88
54	Damage of amorphous carbon induced by soft x-ray femtosecond pulses above and below the critical angle. <i>Applied Physics Letters</i> , 2009, 95, 031111.	1.5	33

#	ARTICLE	IF	CITATIONS
55	Effect of current density on the microstructure and corrosion behaviour of plasma electrolytic oxidation treated AM50 magnesium alloy. Applied Surface Science, 2009, 255, 4212-4218.	3.1	199
56	Different Underlying Corrosion Mechanism for Mg Bulk Alloys and Mg Thin Films. Plasma Processes and Polymers, 2009, 6, S690.	1.6	13
57	Electrochemical corrosion behaviour of plasma electrolytic oxidation coatings on AM50 magnesium alloy formed in silicate and phosphate based electrolytes. Electrochimica Acta, 2009, 54, 3842-3850.	2.6	278
58	Time-of-flight grazing incidence small angle neutron scattering on Gd nanowires. European Physical Journal: Special Topics, 2009, 167, 73-79.	1.2	4
59	Radiation damage to amorphous carbon thin films irradiated by multiple 46.9 nm laser shots below the single-shot damage threshold. Journal of Applied Physics, 2009, 105, .	1.1	23
60	Optical emission spectroscopy of various materials irradiated by soft x-ray free-electron laser. , 2009, , .		5
61	Damage thresholds of various materials irradiated by 100-ps pulses of 21.2-nm laser radiation. , 2009, , .		0
62	Correlation between texture and corrosion properties of magnesium coatings produced by PVD. Surface and Coatings Technology, 2008, 202, 2236-2240.	2.2	28
63	Three-dimensional microstructural analysis of Mg-Al-Zn alloys by synchrotron-radiation-based microtomography. Scripta Materialia, 2008, 58, 453-456.	2.6	19
64	Epitaxial growth of nickel on Si(100) by dc magnetron sputtering. Journal of Applied Physics, 2008, 104, .	1.1	12
65	Single-layer and multilayer mirrors for current and next-generation light sources. Proceedings of SPIE, 2008, , .	0.8	7
66	Total reflection and multilayer optics for synchrotrons and free-electron lasers. Acta Crystallographica Section A: Foundations and Advances, 2008, 64, C182-C182.	0.3	0
67	Deposition and properties of novel microcrystalline Mg alloy coatings. Surface Engineering, 2007, 23, 339-343.	1.1	6
68	State-of-the-art Thin Film X-ray Optics for Conventional Synchrotrons and FEL Sources. AIP Conference Proceedings, 2007, , .	0.3	0
69	Corrosion Properties of Supersaturated Magnesium Alloy Systems. Materials Science Forum, 2007, 539-543, 1679-1684.	0.3	11
70	X-ray scattering from etched and coated multilayer gratings. Journal Physics D: Applied Physics, 2007, 40, 4253-4258.	1.3	13
71	State-of-the-art thin film X-ray optics for synchrotrons and FEL sources. , 2007, , .		0
72	Capillary-discharge 46.9-nm laser-induced damage to a-C thin films exposed to multiple laser shots below single-shot damage threshold. , 2007, , .		2

#	ARTICLE	IF	CITATIONS
73	Biodegradable magnesium-hydroxyapatite metal matrix composites. <i>Biomaterials</i> , 2007, 28, 2163-2174.	5.7	570
74	Influence of ion energy on morphology and corrosion properties of Mg alloys formed by energetic PVD processes. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 257, 392-396.	0.6	8
75	Quantitative TEM characterizations of La/B4C and Mo/B4C ultrathin multilayer gratings by the geometric phase method. <i>Microelectronic Engineering</i> , 2007, 84, 454-459.	1.1	7
76	Structure and Corrosion of Magnetron Sputtered Pure Mg Films on Silicon Substrates. <i>Plasma Processes and Polymers</i> , 2007, 4, S557-S561.	1.6	19
77	Radiation damages to amorphous-carbon optical coatings. , 2005, , .		6
78	TEM characterization of La/B4C multilayer systems by the geometric phase method. <i>Physica Status Solidi A</i> , 2005, 202, 2299-2308.	1.7	7
79	Investigations of large x-ray optics for free electron lasers. , 2004, , .		6
80	Characterization of amorphous carbon films as total-reflection mirrors for XUV free-electron lasers. , 2002, , .		6
81	<title>Laterally graded multilayer optics for x-ray analysis</title>. , 1999, 3767, 183.		36
82	Study of laser-deposited metallic thin films by a combination of high-resolution ex situ and time-resolved in situ experiments. <i>Applied Physics A: Materials Science and Processing</i> , 1999, 69, S455-S457.	1.1	6
83	PAC measurements in laser deposited Ag/Fe and In/Fe alloys. <i>Journal of Magnetism and Magnetic Materials</i> , 1998, 189, 8-18.	1.0	7
84	Formation of Metallic Systems Far From Equilibrium By Pulsed Laser Deposition. <i>Materials Research Society Symposia Proceedings</i> , 1997, 481, 575.	0.1	2
85	Structural properties of laser deposited metallic alloys and multilayers. <i>Applied Surface Science</i> , 1997, 109-110, 563-569.	3.1	29
86	Origin and avoidance of droplets during laser ablation of metals. <i>Applied Surface Science</i> , 1997, 109-110, 433-436.	3.1	37
87	Ar-ion irradiation of laser deposited Fe-Ag thin films. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 122, 503-506.	0.6	5
88	Structure of laser-deposited metallic alloys and multilayers. <i>Thin Solid Films</i> , 1996, 275, 18-21.	0.8	7
89	Structure of laser-deposited metallic alloys and multilayers. , 1996, , 18-21.		0
90	Comparison of the structure of laser deposited and sputtered metallic alloys. <i>Applied Surface Science</i> , 1995, 86, 90-94.	3.1	17

#	ARTICLE	IF	CITATIONS
91	Comment on "Formation of Crystalline Ag _x Ni _{1-x} Solid Solutions of Unusually High Supersaturation by Laser Ablation Deposition". Physical Review Letters, 1995, 75, 3966-3966.	2.9	7
92	Structure of laser deposited metallic alloys. Journal of Applied Physics, 1995, 78, 7080-7087.	1.1	40
93	Structural changes during Ar-ion irradiation of laser-deposited Fe/Ag multilayers. Applied Physics A: Materials Science and Processing, 1995, 61, 591-594.	1.1	1