Maik Butterling

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8940051/publications.pdf

Version: 2024-02-01

103	1,206	430442	500791
papers	citations	18 h-index	28 g-index

105	105	105	1460
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploring point defects and trap states in undoped SrTiO3 single crystals. Journal of the European Ceramic Society, 2022, 42, 1510-1521.	2.8	14
2	Influence of surface activation on the microporosity of PEâ€CVD and PEâ€ALD SiO_x thin films on PDMS. Plasma Processes and Polymers, 2022, 19, .	1.6	5
3	Manipulating magnetic and magnetoresistive properties by oxygen vacancy complexes in GCMO thin films. Journal of Physics Condensed Matter, 2022, 34, 155804.	0.7	0
4	Strongly Enhanced Growth of High-Temperature Superconducting Films on an Advanced Metallic Template. Crystal Growth and Design, 2022, 22, 2097-2104.	1.4	2
5	Defect Nanostructure and its Impact on Magnetism of Î±â€Cr₂O₃ Thin Films. Small, 2022, 18, e2201228.	5.2	13
6	The mechanism behind the high radiation tolerance of Feâ€“Cr alloys. Journal of Applied Physics, 2022, 131, .	1.1	4
7	The impact of high hydrostatic pressure maintenance after high-pressure torsion on phenomena during high hydrostatic pressure annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142874.	2.6	2
8	Ion Intercalation in Lanthanum Strontium Ferrite for Aqueous Electrochemical Energy Storage Devices. ACS Applied Materials & Interfaces, 2022, 14, 18486-18497.	4.0	4
9	Magnetism and Magnetoelectricity of Textured Polycrystalline Bulk Cr₂O₃ Sintered in Conditions Far out of Equilibrium. ACS Applied Electronic Materials, 2022, 4, 2943-2952.	2.0	5
10	Modification of Porous Ultralow-k Film by Vacuum Ultraviolet Emission. ACS Applied Electronic Materials, 2022, 4, 2760-2776.	2.0	3
11	Unravelling the Origin of Ultraâ€Low Conductivity in SrTiO₃ Thin Films: Sr Vacancies and Ti on Aâ€Sites Cause Fermi Level Pinning. Advanced Functional Materials, 2022, 32, .	7.8	5
12	Nanoscaled LiMn₂O₄ for Extended Cycling Stability in the 3 V Plateau. ACS Applied Materials & Interfaces, 2022, 14, 33438-33446.	4.0	6
13	Oxidation of amorphous HfNbTaTiZr high entropy alloy thin films prepared by DC magnetron sputtering. Journal of Alloys and Compounds, 2021, 869, 157978.	2.8	24
14	Zinc Oxide Defect Microstructure and Surface Chemistry Derived from Oxidation of Metallic Zinc: Thinâ€Film Transistor and Sensor Behavior of ZnO Films and Rods. Chemistry - A European Journal, 2021, 27, 5422-5431.	1.7	8
15	Mapping the Structure of Oxygen-Doped Wurtzite Aluminum Nitride Coatings from Ab Initio Random Structure Search and Experiments. ACS Applied Materials & Interfaces, 2021, 13, 5762-5771.	4.0	3
16	Cation non-stoichiometry in Fe:SrTiO₃ thin films and its effect on the electrical conductivity. Nanoscale Advances, 2021, 3, 6114-6127.	2.2	4
17	An experimental investigation of light emission produced in the process of positronium formation in matter. Physical Chemistry Chemical Physics, 2021, 23, 11264-11271.	1.3	2
18	Solution synthesis and dielectric properties of alumina thin films: understanding the role of the organic additive in film formation. Dalton Transactions, 2021, 50, 8811-8819.	1.6	0

#	Article	IF	Citations
19	Electric and magnetic dipole strength in Zn66. Physical Review C, 2021, 103, .	1.1	4
20	Zinc Oxide Defect Microstructure and Surface Chemistry Derived from Oxidation of Metallic Zinc. Thin Film Transistor and Sensoric Behaviour of ZnO Films and Rods. Chemistry - A European Journal, 2021, 27, 5312-5312.	1.7	0
21	Ultrathin Co films with Pt and Au coversâ€"magnetic and structural properties driven by Ga⁺ ion irradiation. New Journal of Physics, 2021, 23, 023015.	1.2	5
22	Tuned AFMâ€"FM coupling by the formation of vacancy complex in Gd_{0.6}Ca_{0.4}MnO₃ thin film lattice. Journal of Physics Condensed Matter, 2021, 33, 255803.	0.7	4
23	Magneto-Ionics in Single-Layer Transition Metal Nitrides. ACS Applied Materials & Interfaces, 2021, 13, 30826-30834.	4.0	13
24	A new system for real-time data acquisition and pulse parameterization for digital positron annihilation lifetime spectrometers with high repetition rates. Journal of Instrumentation, 2021, 16, P08001.	0.5	25
25	Effect of roughness and nanoporosity on optical properties of black and reflective Al films prepared by magnetron sputtering. Journal of Alloys and Compounds, 2021, 872, 159744.	2.8	11
26	Critical Role of Electrical Resistivity in Magnetoionics. Physical Review Applied, 2021, 16, .	1.5	6
27	Formation and time dynamics of hydrogen-induced vacancies in nickel. Acta Materialia, 2021, 219, 117264.	3.8	13
28	Phase evolution of Te-hyperdoped Si upon furnace annealing. Applied Surface Science, 2021, 567, 150755.	3.1	6
29	Exploring the anti-site disorder and oxygen vacancies in Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e281" altimg="si7.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>FeMoO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e289" altimg="si8.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:msub></mml:math> double perovskite by positron annihilation spectroscopy	1.0	9
30	Defect Characterization Using Positron Annihilation Spectroscopy on Laser-Ablated Surfaces. Jom, 2021, 73, 4221.	0.9	0
31	Radiation damage evolution in pure W and W-Cr-Hf alloy caused by 5ÂMeV Au ions in a broad range of dpa. Nuclear Materials and Energy, 2021, 29, 101085.	0.6	3
32	Light-driven permanent transition from insulator to conductor. Physical Review B, 2021, 104, .	1.1	6
33	Positron annihilation analysis of nanopores and growth mechanism of oblique angle evaporated TiO2 and SiO2 thin films and multilayers. Microporous and Mesoporous Materials, 2020, 295, 109968.	2.2	8
34	Thermal kinetics of free volume in porous spin-on dielectrics: Exploring the network- and pore-properties. Microporous and Mesoporous Materials, 2020, 308, 110457.	2.2	4
35	Voltage-driven motion of nitrogen ions: a new paradigm for magneto-ionics. Nature Communications, 2020, 11, 5871.	5.8	42
36	Electrical and optical properties in O-polar and Zn-polar ZnO films grown by pulsed laser deposition. Thin Solid Films, 2020, 711, 138303.	0.8	4

#	Article	IF	Citations
37	A new mechanism for void-cascade interaction from nondestructive depth-resolved atomic-scale measurements of ion irradiationâ€“induced defects in Fe. Science Advances, 2020, 6, eaba8437.	4.7	32
38	Vacancy-Hydrogen Interaction in Niobium during Low-Temperature Baking. Scientific Reports, 2020, 10, 8300.	1.6	17
39	Magnetic response of FeRh to static and dynamic disorder. RSC Advances, 2020, 10, 14386-14395.	1.7	21
40	Electric and magnetic dipole strength in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Fe</mml:mi><mml:mprescripts /><mml:none /><mml:mn>54</mml:mn></mml:mmultiscripts></mml:math>. Physical Review C, 2020, 101, .	0.6	6
41	Ferromagnetism in undoped ZnO grown by pulsed laser deposition. Materials Research Express, 2020, 7, 056102.	0.8	3
42	Boosting Roomâ€Temperature Magnetoâ€Ionics in a Nonâ€Magnetic Oxide Semiconductor. Advanced Functional Materials, 2020, 30, 2003704.	7.8	18
43	A secret luminescence killer in deepest QWs of InGaN/GaN multiple quantum well structures. Journal of Crystal Growth, 2020, 536, 125579.	0.7	1
44	Chemical manipulation of hydrogen induced high p-type and n-type conductivity in Ga2O3. Scientific Reports, 2020, 10, 6134.	1.6	65
45	Characterisation of micropores in plasma deposited SiO _x films by means of positron annihilation lifetime spectroscopy. Journal Physics D: Applied Physics, 2020, 53, 475205.	1.3	7
46	Point and extended defects in heteroepitaxial Î²â^'Ga2O3 films. Physical Review Materials, 2020, 4, .	0.9	12
47	Positron Structural Analysis of ScN Films Deposited on MgO Substrate. Acta Physica Polonica A, 2020, 137, 209-214.	0.2	3
48	Defects in Thin Layers of High Entropy Alloy HfNbTaTiZr. Acta Physica Polonica A, 2020, 137, 219-221.	0.2	3
49	Microstructure and Nanoscopic Porosity in Black Pd Films. Acta Physica Polonica A, 2020, 137, 222-226.	0.2	5
50	Study of Nanoscopic Porosity in Black Metals by Positron Annihilation Spectroscopy. Acta Physica Polonica B, 2020, 51, 383.	0.3	5
51	Dissolution of donor-vacancy clusters in heavily doped n-type germanium. New Journal of Physics, 2020, 22, 123036.	1.2	4
52	Depth selective magnetic phase coexistence in FeRh thin films. APL Materials, 2020, 8, .	2.2	15
53	Fundamental studies on the curing behavoir of porous CVD and spin-on dielectrics. , 2020, , .		0
54	On defectsâ€™ role in enhanced perpendicular magnetic anisotropy in Pt/Co/Pt, induced by ion irradiation. Journal of Physics Condensed Matter, 2019, 31, 185801.	0.7	7

#	Article	IF	Citations
55	Vacancy complexes in nonequilibrium germanium-tin semiconductors. Applied Physics Letters, 2019, 114, .	1.5	30
56	Depth Resolved Measurements of Atomic Scale Defects in Ion Irradiated Fe Alloys. Microscopy and Microanalysis, 2019, 25, 1546-1547.	0.2	1
57	Enhanced flux pinning isotropy by tuned nanosized defect network in superconducting YBa2Cu3O6+x films. Scientific Reports, 2019, 9, 15425.	1.6	24
58	The role of open-volume defects in the annihilation of antisites in a B2-ordered alloy. Acta Materialia, 2019, 176, 167-176.	3.8	14
59	Vacancy cluster in ZnO films grown by pulsed laser deposition. Scientific Reports, 2019, 9, 3534.	1.6	26
60	Formation of heavy clusters in ion-irradiated compounds. Vacuum, 2019, 164, 149-152.	1.6	4
61	Ion-induced processes in polymer composite materials: Positron annihilation spectroscopy in combination with UV-Vis absorption and Raman spectroscopy. AIP Conference Proceedings, 2019, , .	0.3	1
62	Sb-related defects in Sb-doped ZnO thin film grown by pulsed laser deposition. Journal of Applied Physics, 2018, 123, .	1.1	19
63	Voltage-Controlled ONâ€“OFF Ferromagnetism at Room Temperature in a Single Metal Oxide Film. ACS Nano, 2018, 12, 10291-10300.	7.3	57
64	Positron annihilation lifetime and Doppler broadening spectroscopy at the ELBE facility. AIP Conference Proceedings, 2018, , .	0.3	60
65	Nature of the Positron State in CdSe Quantum Dots. Physical Review Letters, 2018, 121, 057401.	2.9	7
66	Metal oxide double layer capacitors by electrophoretic deposition of metal oxides. Fabrication, electrical characterization and defect analysis using positron annihilation spectroscopy. Journal of Materials Chemistry C, 2018, 6, 9501-9509.	2.7	2
67	Positron Annihilation Studies on the Damp Heat Degradation of ZnO:Al Transparent Conductive Oxide Layers for CIGS Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 1847-1851.	1.5	10
68	Evolution and role of vacancy clusters at grain boundaries of ZnO:Al during accelerated degradation of Cu(In,Ga)Se2 solar cells revealed by positron annihilation. Physical Review Materials, 2018, 2, .	0.9	7
69	New insights into the nanostructure of innovative thin film solar cells gained by positron annihilation spectroscopy. Journal of Physics: Conference Series, 2017, 791, 012021.	0.3	1
70	Threshold concentration for ion implantation-induced Co nanocluster formation in TiO 2 :Co thin films. Nuclear Instruments & Methods in Physics Research B, 2016, 389-390, 13-16.	0.6	3
71	Positron spectroscopy of point defects in the skyrmion-lattice compound MnSi. Scientific Reports, 2016, 6, 29109.	1.6	23
72	From a non-magnet to a ferromagnet: Mn+ implantation into different TiO2 structures. Applied Physics Letters, 2015, 107, .	1.5	13

#	Article	IF	Citations
73	Positron-Annihilation Lifetime Spectroscopy using Electron Bremsstrahlung. Journal of Physics: Conference Series, 2015, 618, 012042.	0.3	6
74	Open volume defects and magnetic phase transition in Fe60Al40 transition metal aluminide. Journal of Applied Physics, 2015, 117, .	1.1	61
75	Investigation of H⁺implanted Fe-Al alloys. Journal of Physics: Conference Series, 2014, 505, 012013.	0.3	2
76	The Evidence of Quasi-Free Positronium State in GiPS-AMOC Spectra of Glycerol. Acta Physica Polonica A, 2014, 125, 821-824.	0.2	2
77	Ferromagnetism and structural defects in Vâ€doped titanium dioxide. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1106-1109.	0.8	6
78	Nuclear Deformation and Neutron Excess as Competing Effects for Dipole Strength in the Pygmy Region. Physical Review Letters, 2014, 112, 072501.	2.9	43
79	Positron annihilation in flight: experiment with slow and fast positrons. Journal of Physics: Conference Series, 2014, 505, 012043.	0.3	1
80	Tomographic Positron Annihilation Lifetime Spectroscopy. Journal of Physics: Conference Series, 2014, 505, 012034.	0.3	2
81	Flash lamp annealing of tungsten surfaces marks a new way to optimized slow positron yields. Journal of Physics: Conference Series, 2013, 443, 012072.	0.3	4
82	Optimization of growth parameters of TiO₂thin films using a slow positron beam. Journal of Physics: Conference Series, 2013, 443, 012073.	0.3	1
83	Study of Neutron Induced Defects in Ceramics using the GiPS Facility. Journal of Physics: Conference Series, 2013, 443, 012076.	0.3	3
84	Account of the intratrack radiolytic processes for interpretation of the AMOC spectrum of liquid water. Journal of Physics: Conference Series, 2013, 443, 012057.	0.3	8
85	First Experiments with MePS. Journal of Physics: Conference Series, 2013, 443, 012088.	0.3	11
86	Position-resolved Positron Annihilation Lifetime Spectroscopy. Journal of Physics: Conference Series, 2013, 443, 012091.	0.3	0
87	Application of Positron Annihilation Spectroscopy to the Study of Irradiated Fe-Cr Alloys. Defect and Diffusion Forum, 2012, 331, 165-179.	0.4	2
88	Release of helium from vacancy defects in yttria-stabilized zirconia under irradiation. Physical Review B, 2012, 86, .	1.1	19
89	Investigation of Dual-Beam-Implanted Oxide-Dispersed-Strengthened FeCrAl Alloy by Positron Annihilation Spectroscopy. Defect and Diffusion Forum, 2012, 331, 149-163.	0.4	5
90	Annihilation Lifetime Spectroscopy Using Positrons from Bremsstrahlung Production. Defect and Diffusion Forum, 2012, 331, 41-52.	0.4	4

#	Article	IF	Citations
91	Nanocavity formation and hardness increase by dual ion beam irradiation of oxide dispersion strengthened FeCrAl alloy. Journal of Nuclear Materials, 2012, 427, 133-139.	1.3	45
92	Photon induced positron annihilation spectroscopy: A nondestructive method for assay of defects in large engineering materials. Nuclear Instruments & Methods in Physics Research B, 2012, 270, 128-132.	0.6	9
93	Use of superconducting linacs for positron generation: the EPOS system at the Forschungszentrum Dresden-Rossendorf (FZD). Journal of Physics: Conference Series, 2011, 262, 012003.	0.3	7
94	Monte-Carlo simulations for timing-system of EPOS at ELBE in Research Centre Dresden-Rossendorf. Journal of Physics: Conference Series, 2011, 265, 012027.	0.3	1
95	Gamma-induced Positron Spectroscopy (GiPS) at a superconducting electron linear accelerator. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 2623-2629.	0.6	35
96	Identification of defect properties by positron annihilation in Te-doped GaAs after Cu in-diffusion. Physical Review B, 2011, 84, .	1.1	17
97	Evaluation of a microchannel-plate PMT as a potential timing detector suitable for positron lifetime measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 624, 641-645.	0.7	6
98	Positron annihilation spectroscopy using highâ€energy photons. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 334-337.	0.8	10
99	Structural Characterisation of Er Implanted, Ge-Rich SiO₂ Layers Using Slow Positron Implantation Spectroscopy. Materials Science Forum, 2010, 666, 41-45.	0.3	0
100	Experimental elucidation of vacancy complexes associated with hydrogen ion-induced splitting of bulk GaN. Physical Review B, 2010, 81, .	1.1	18
101	Progress of the EPOS project: Gammaâ€induced Positron Spectroscopy (GiPS). Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2451-2455.	0.8	8
102	Low Background Digital Coincidence Spectrometer â€“ A Tool for Investigation of Positron Annihilation in Flight. Defect and Diffusion Forum, 0, 331, 53-73.	0.4	1
103	Design and Construction of a Slow Positron Beam for Solid and Surface Investigations. Defect and Diffusion Forum, 0, 331, 25-40.	0.4	76