Alexander Gottwald

List of Publications by Year
in descending order

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85 papers	1,648 citations	304743 22 h-index	345221 36 g-index
85 all docs	85 docs citations	85 times ranked	1683 citing authors

#	Article	IF	Citations
1	Hexacene on Cu(110) and Ag(110): Influence of the Substrate on Molecular Orientation and Interfacial Charge Transfer. Journal of Physical Chemistry C, 2022, 126, 5036-5045.	3.1	7
2	Chargeâ€Promoted Selfâ€Metalation of Porphyrins on an Oxide Surface. Angewandte Chemie - International Edition, 2021, 60, 5078-5082.	13.8	17
3	LadungsunterstÃ¼tzte Selbstmetallierung von Porphyrinen auf OxidoberflÃchen. Angewandte Chemie, 2021, 133, 5138-5142.	2.0	3
4	Going beyond Pentacene: Photoemission Tomography of a Heptacene Monolayer on Ag(110). Journal of Physical Chemistry C, 2021, 125, 2918-2925.	3.1	7
5	Controlling the electronic and physical coupling on dielectric thin films. Beilstein Journal of Nanotechnology, 2020, 11, 1492-1503.	2.8	6
6	Kekulene: On-Surface Synthesis, Orbital Structure, and Aromatic Stabilization. ACS Nano, 2020, 14, 15766-15775.	14.6	30
7	Comparison of Back-Thinned Detector Ultraviolet Quantum Efficiency for Two Commercially Available Passivation Treatments. IEEE Transactions on Nuclear Science, 2020, 67, 1962-1967.	2.0	4
8	Can photoemission tomography be useful for small, strongly-interacting adsorbate systems?. New Journal of Physics, 2019, 21, 043003.	2.9	9
9	Identifying surface reaction intermediates with photoemission tomography. Nature Communications, 2019, 10, 3189.	12.8	18
10	Validation of thin film TiO₂ optical constants by reflectometry and ellipsometry in the VUV spectral range. Measurement Science and Technology, 2019, 30, 045201.	2.6	9
11	The U125 insertion device beamline at the Metrology Light Source. Journal of Synchrotron Radiation, 2019, 26, 535-542.	2.4	11
12	An X-ray gas monitor for free-electron lasers. Journal of Synchrotron Radiation, 2019, 26, 1092-1100.	2.4	37
13	Angle resolved Photoemission from Ag and Au single crystals: Final state lifetimes in the attosecond range. Journal of Electron Spectroscopy and Related Phenomena, 2018, 224, 84-92.	1.7	10
14	Transverse resonance island buckets for synchrotron-radiation based electron time-of-flight spectroscopy. Review of Scientific Instruments, 2018, 89, 103114.	1.3	3
15	Optical properties of In₂O₃ from experiment and first-principles theory: influence of lattice screening. New Journal of Physics, 2018, 20, 053016.	2.9	20
16	Advanced silicon radiation detectors in the vacuum ultraviolet and the extreme ultraviolet spectral range. , 2018, , 151-170.		1
17	Traceable measurements of He, Ne, Ar, Kr, and Xe photoionization cross sections in the EUV spectral range. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 135004.	1.5	5
18	Optical properties of a Cr/4H-SiC photodetector in the spectral range from ultraviolet to extreme ultraviolet. Applied Optics, 2018, 57, 8431.	1.8	9

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19	The EUI flight instrument of Solar Orbiter: from optical alignment to end-to-end calibration. , 2018, , .		0
20	Understanding the photoemission distribution of strongly interacting two-dimensional overlayers. Physical Review B, 2017, 96, .	3.2	25
21	Uncertainty analysis for the determination of B_4C optical constants by angle-dependent reflectance measurement for 40â€‰â€‰nm to 80â€‰â€‰nm wavelength. Applied Optics, 2017, 56, 5768.	1.8	11
22	Calibration of space instruments at the Metrology Light Source. AIP Conference Proceedings, 2016, , .	0.4	4
23	Developments in calibration of EUV and VUV detectors for solar orbiter instrumentation using synchrotron radiation. , 2016, , .		3
24	Irradiation-induced degradation of PTB7 investigated by valence band and S 2pphotoelectron spectroscopy. Nanotechnology, 2016, 27, 324005.	2.6	8
25	Elektronenorbitale in 3D. Physik in Unserer Zeit, 2016, 47, 192-198.	0.0	0
26	Angle resolved photoemission from Cu single crystals: Known facts and a few surprises about the photoemission process. Journal of Electron Spectroscopy and Related Phenomena, 2016, 208, 2-10.	1.7	13
27	Electronic properties of Mn-phthalocyanineâ€“C60 bulk heterojunctions: Combining photoemission and electron energy-loss spectroscopy. Journal of Applied Physics, 2015, 118, .	2.5	4
28	Degradation assessment of LYRA after 5Âyears on orbit - Technology Demonstration -. Experimental Astronomy, 2015, 39, 29-43.	3.7	9
29	Where does the Thermospheric Ionospheric GEospheric Research (TIGER) Program go?. Advances in Space Research, 2015, 56, 1547-1577.	2.6	10
30	Experimental search for the low-energy nuclear transition in²²⁹Th with undulator radiation. New Journal of Physics, 2015, 17, 053053.	2.9	60
31	Exploring three-dimensional orbital imaging with energy-dependent photoemission tomography. Nature Communications, 2015, 6, 8287.	12.8	76
32	Design and Radiation Hardness of Next Generation Solar UV Radiometers. , 2014, , .		3
33	A synchrotron-radiation-based variable angle ellipsometer for the visible to vacuum ultraviolet spectral range. Review of Scientific Instruments, 2014, 85, 055117.	1.3	15
34	Electronic properties and morphology of Cu-phthalocyanineâ€”C60 composite mixtures. Journal of Applied Physics, 2014, 115, 033705.	2.5	11
35	Advanced silicon radiation detectors in the vacuum ultraviolet (VUV) and the extreme ultraviolet (EUV) spectral range. , 2014, , 102-123.		4
36	Robust UV/VUV/EUV PureB Photodiode Detector Technology With High CMOS Compatibility. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 306-316.	2.9	58

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37	Irradiation Damage Tests on Backside-Illuminated CMOS APS Prototypes for the Extreme Ultraviolet Imager On-Board Solar Orbiter. IEEE Transactions on Nuclear Science, 2013, 60, 3907-3914.	2.0	13
38	Developments, characterization and proton irradiation damage tests of AlN detectors for VUV solar observations. Nuclear Instruments & Methods in Physics Research B, 2013, 312, 48-53.	1.4	15
39	Characterization of Backside-Illuminated CMOS APS Prototypes for the Extreme Ultraviolet Imager On-Board Solar Orbiter. IEEE Transactions on Electron Devices, 2013, 60, 1701-1708.	3.0	10
40	UV and VUV calibration capabilities at the Metrology Light Source for solar and atmospheric research. AIP Conference Proceedings, 2013, , .	0.4	5
41	Broad-band efficiency calibration of ITER bolometer prototypes using Pt absorbers on SiN membranes. Review of Scientific Instruments, 2013, 84, 123501.	1.3	17
42	SPICE EUV spectrometer for the Solar Orbiter mission. Proceedings of SPIE, 2013, , .	0.8	18
43	Surface-Charge-Collection-Enhanced High-Sensitivity High-Stability Silicon Photodiodes for DUV and VUV Spectral Ranges. IEEE Transactions on Electron Devices, 2012, 59, 2888-2894.	3.0	25
44	Current capabilities at the Metrology Light Source. Metrologia, 2012, 49, S146-S151.	1.2	36
45	Electrical and Optical Performance Investigation of Si-Based Ultrashallow-Junction $hbox{p}^{+}hbox{-}hbox{n}$ VUV/EUV Photodiodes. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1268-1277.	4.7	26
46	Radiometric comparison of the primary source standard â€˜Metrology Light Sourceâ€™ to a primary detector standard. Metrologia, 2011, 48, 219-225.	1.2	7
47	AlGaN-on-Si-Based 10-$muhbox{m}$ Pixel-to-Pixel Pitch Hybrid Imagers for the EUV Range. IEEE Electron Device Letters, 2011, 32, 1561-1563.	3.9	15
48	Series resistance optimization of high-sensitivity si-based VUV photodiodes. , 2011, , .		6
49	High-sensitivity high-stability silicon photodiodes for DUV, VUV and EUV spectral ranges. Proceedings of SPIE, 2011, , .	0.8	10
50	Polarizing and non-polarizing mirrors for the hydrogen Lyman-Î± radiation at 121.6 nm. Applied Physics A: Materials Science and Processing, 2011, 102, 641-649.	2.3	22
51	Bilateral NISTâ€“PTB comparison of spectral responsivity in the VUV. Metrologia, 2011, 48, 02001-02001.	1.2	8
52	Quantum efficiency measurements of eROSITA pnCCDs. Proceedings of SPIE, 2010, , .	0.8	10
53	Ultraviolet and vacuum-ultraviolet detector-based radiometry at the Metrology Light Source. Measurement Science and Technology, 2010, 21, 125101.	2.6	47
54	Experimental determination of optical constants of MgF2 and AlF3 thin films in the vacuum ultra-violet wavelength region (60â€“124nm), and its application to optical designs. Optics Communications, 2010, 283, 1351-1358.	2.1	38

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55	Optical performance of B-layer ultra-shallow-junction silicon photodiodes in the VUV spectral range. Procedia Engineering, 2010, 5, 633-636.	1.2	27
56	Temperature-dependent Urbach tail measurements of lutetium aluminum garnet single crystals. Physical Review B, 2010, 81, .	3.2	17
57	Optical stability investigation of high-performance silicon-based VUV photodiodes. , 2010, , .		11
58	Temperature-dependent Urbach tail measurements of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CaF</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:ms crystals. Physical Review B, 2009, 79, .	3.2	12
59	A quarterâ€century of metrology using synchrotron radiation by PTB in Berlin. Physica Status Solidi (B): Basic Research, 2009, 246, 1415-1434.	1.5	117
60	Gas detectors for x-ray lasers. Journal of Applied Physics, 2008, 103, .	2.5	147
61	The Metrology Light Source â€" the New Dedicated Electron Storage Ring of PTB. AIP Conference Proceedings, 2007, , .	0.4	1
62	Polarization-dependent vacuum-ultraviolet reflectometry using elliptically polarized synchrotron radiation. Applied Optics, 2007, 46, 7797.	2.1	11
63	The Metrology Light Source â€“ The new dedicated electron storage ring of PTB. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 445-452.	1.4	17
64	Absolute measurement of F_2-laser power at 157 nm. Applied Optics, 2006, 45, 3325.	2.1	0
65	Calibration of space instrumentation with synchrotron radiation. Advances in Space Research, 2006, 37, 265-272.	2.6	23
66	The PTB high-accuracy spectral responsivity scale in the VUV and x-ray range. Metrologia, 2006, 43, S125-S129.	1.2	63
67	Method based on atomic photoionization for spot-size measurement on focused soft x-ray free-electron laser beams. Applied Physics Letters, 2006, 89, 221114.	3.3	32
68	Stability of vacuum-ultraviolet radiometric transfer standards: Electron cyclotron resonance versus hollow cathode source. Review of Scientific Instruments, 2005, 76, 023101.	1.3	2
69	Pulse energy measurements of extreme ultraviolet undulator radiation. Measurement Science and Technology, 2004, 15, 437-443.	2.6	3
70	FEL beam metrology with a gas-monitor detector. , 2004, , .		2
71	High-accuracy VUV reflectometry at selectable sample temperatures. , 2004, , .		5
72	Absolute Measurement Of EUV Radiation From An Undulator. AIP Conference Proceedings, 2004, , .	0.4	0

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73	Gas-Monitor Detector for Intense and Pulsed VUV/EUV Free-Electron Laser Radiation. AIP Conference Proceedings, 2004, , .	0.4	9
74	Development of imaging arrays for solar UV observations based on wide band gap materials. , 2004, , .		11
75	Measurement of gigawatt radiation pulses from a vacuum and extreme ultraviolet free-electron laser. Applied Physics Letters, 2003, 83, 2970-2972.	3.3	107
76	Spatial anisotropy of the exciton level inCaF2at 11.1 eV and its relation to the weak optical anisotropy at 157 nm. Physical Review B, 2003, 67, .	3.2	16
77	On the optical anisotropy in the cubic crystal of CaF 2 : scaling arguments and their relation to dispersing absorption. , 2003, , .		0
78	Metrology of pulsed radiation for 157-nm lithography. Applied Optics, 2002, 41, 7167.	2.1	38
79	Molecular contamination mitigation in EUVL by environmental control. Microelectronic Engineering, 2002, 61-62, 65-76.	2.4	26
80	<title>Lifetime testing of EUV optics using intense synchrotron radiation at the PTB Radiometry Laboratory</title>. , 2001, , .		9
81	High-accuracy EUV metrology of PTB using synchrotron radiation. , 2001, 4344, 402.		54
82	4dPhotoionization of Free Singly Charged Xenon Ions. Physical Review Letters, 1999, 82, 2068-2070.	7.8	25
83	Photoelectron spectroscopy on atomic Pr and Nd in the 4d giant resonance region. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 3875-3884.	1.5	2
84	Inner-shell resonances in metastableCa+ions. Physical Review A, 1997, 55, 3941-3944.	2.5	13
85	Saturation behaviour of PtSi-photodiodes under 157-nm laser irradiation. , 0, , .		0