

# Marcel Himmerlich

## List of Publications by Year in descending order

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89  
papers

1,727  
citations

279798

23  
h-index

315739

38  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2524  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis, surface chemical analysis, lifetime studies and degradation mechanisms of Cs-K-Sb photocathodes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 986, 164724.	1.6	8
2	The impact of H <sub>2</sub> and N <sub>2</sub> on the material properties and secondary electron yield of sputtered amorphous carbon films for anti-multipacting applications. Applied Surface Science, 2021, 542, 148552.	6.1	6
3	Secondary electron yield reduction by femtosecond pulse laser-induced periodic surface structuring. Surfaces and Interfaces, 2021, 25, 101179.	3.0	17
4	Beam-induced surface modifications as a critical source of heat loads in the Large Hadron Collider. Communications Physics, 2021, 4, .	5.3	6
5	Stability and lifetime study of carbon nanotubes as cold electron field emitters for electron cooling in the CERN extra low energy antiproton ring. Physical Review Accelerators and Beams, 2021, 24, .	1.6	2
6	Two-dimensional electron gas of the $\text{In}_2\text{O}_3$ surface: Enhanced thermopower, electrical transport properties, and reduction by adsorbates or compensating acceptor doping. Physical Review B, 2020, 102, .	3.2	8
7	Atomic surface structure of MOVPE-prepared GaP(1 1 1)B. Applied Surface Science, 2020, 534, 147346.	6.1	1
8	Role of surface microgeometries on electron escape probability and secondary electron yield of metal surfaces. Scientific Reports, 2020, 10, 250.	3.3	23
9	Optimization of the secondary electron yield of laser-structured copper surfaces at room and cryogenic temperature. Physical Review Accelerators and Beams, 2020, 23, .	1.6	21
10	Energy-resolved secondary-electron emission of candidate beam screen materials for electron cloud mitigation at the Large Hadron Collider. Physical Review Accelerators and Beams, 2020, 23, .	1.6	3
11	PEDOT coating applied on thick film gold electrodes for increased miniaturization capability. Progress in Organic Coatings, 2019, 135, 545-554.	3.9	5
12	Processing Strategies for High-Performance Schottky Contacts on n-Type Oxide Semiconductors: Insights from $\text{In}_2\text{O}_3$ . ACS Applied Materials & Interfaces, 2019, 11, 27073-27087.	8.0	26
13	Controlled adsorption of titanium(IV) oxide particles on electroplated zinc coatings to improve the corrosion resistance of chromium(VI)-free conversion layers. Materialwissenschaft Und Werkstofftechnik, 2019, 50, 412-420.	0.9	0
14	Surface properties and biocompatibility of thick film materials used in ceramic bioreactors. Materialia, 2019, 5, 100213.	2.7	3
15	Microgravimetric and Spectroscopic Analysis of Solid-Electrolyte Interphase Formation in Presence of Additives. ChemPhysChem, 2019, 20, 655-664.	2.1	3
16	Cryogenic surface resistance of copper: Investigation of the impact of surface treatments for secondary electron yield reduction. Physical Review Accelerators and Beams, 2019, 22, .	1.6	16
17	Effects of Potassium Adsorption and Potassium-Water Coadsorption on the Chemical and Electronic Properties of n-Type GaN(0001) Surfaces. Journal of Physical Chemistry C, 2018, 122, 4250-4260.	3.1	6
18	Towards Understanding the Cross-Sensitivity of $\text{In}_2\text{O}_3$ Based Ozone Sensors: Effects of $\text{O}_3$ , $\text{O}_2$ and $\text{H}_2\text{O}$ Adsorption at $\text{In}_2\text{O}_3$ (111) Surfaces. Physica Status Solidi (B): Basic Research, 2018, 255, 1700324.	1.5	15

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19	Fuchsâ€œKliewer phonons of H-covered and clean GaN(11100). Surface Science, 2018, 667, 31-37.	1.9	0
20	Effects of Plasma Parameter on Morphological and Electrical Properties of Superconducting Nb-N Deposited by MO-PEALD. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.7	12
21	Anisotropic optical constants, birefringence, and dichroism of wurtzite GaN between 0.6 eV and 6 eV. Journal of Applied Physics, 2017, 122, 045706.	2.5	7
22	Adsorption and desorption of hydrogen at nonpolar $\langle 11\bar{2}0 \rangle$ surfaces: Kinetics and impact on surface vibrational and electronic properties. Physical Review B, 2017, 95, .	3.2	15
23	Surface composition of [BMP][Tf2N] and [PIM][Tf2N] in the presence of NbF5 and TaF5. A photoelectron spectroscopy study. Journal of Molecular Liquids, 2017, 226, 78-84.	4.9	6
24	Influence of intermediate layers on the surface condition of laser crystallized silicon thin films and solar cell performance. Journal of Applied Physics, 2016, 119, 045306.	2.5	5
25	Consequences of plasma oxidation and vacuum annealing on the chemical properties and electron accumulation of In2O3 surfaces. Journal of Applied Physics, 2016, 120, .	2.5	18
26	An Electrochemical and Photoelectron Spectroscopy Study of a Low Temperature Liquid Metal Battery Based on an Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2016, 163, A2488-A2493.	2.9	12
27	The role of surface electron accumulation and bulk doping for gas-sensing explored with single-crystalline In2O3 thin films. Sensors and Actuators B: Chemical, 2016, 236, 909-916.	7.8	41
28	Interaction of indium oxide nanoparticle film surfaces with ozone, oxygen and water. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 831-838.	1.8	10
29	Electrical Conductivity and Gas-sensing Properties of Mg-doped and Undoped Single-crystalline In2O3 Thin Films: Bulk vs. Surface. Procedia Engineering, 2015, 120, 79-82.	1.2	6
30	Hydrogen adsorbed at N-polar InN: Significant changes in the surface electronic properties. Physical Review B, 2015, 91, .	3.2	6
31	Birefringence and refractive indices of wurtzite GaN in the transparency range. Applied Physics Letters, 2015, 107, 092104.	3.3	22
32	Electrochemical lithiation of thin silicon based layers potentiostatically deposited from ionic liquid. Electrochimica Acta, 2015, 168, 403-413.	5.2	42
33	Spatiotemporal Photopatterning on Polycarbonate Surface through Visible Light Responsive Polymer Bound DASA Compounds. ACS Macro Letters, 2015, 4, 1273-1277.	4.8	83
34	Properties and electrochemical characteristics of boron-doped multi-walled carbon nanotubes. Chemical Physics Letters, 2015, 639, 217-224.	2.6	5
35	Morphology, Crystal Structure and Charge Transport in Donorâ€œAcceptor Block Copolymer Thin Films. ACS Applied Materials & Interfaces, 2015, 7, 12309-12318.	8.0	23
36	Confirmation of intrinsic electron gap states at nonpolar GaN(1-100) surfaces combining photoelectron and surface optical spectroscopy. Applied Physics Letters, 2014, 104, .	3.3	28

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37	Reduction of electron accumulation at InN(0001) surfaces via saturation of surface states by potassium and oxygen as donor- or acceptor-type adsorbates. <i>Journal of Applied Physics</i> , 2014, 115, 043716.	2.5	10
38	Multiple stress degradation analysis of the active layer in organic photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 654-668.	6.2	30
39	Impact of potassium and water on the electronic properties of InN(0001) surfaces. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 428-431.	0.8	3
40	Modification of the Active Layer/PEDOT:PSS Interface by Solvent Additives Resulting in Improvement of the Performance of Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 11068-11081.	8.0	16
41	Thermal Functionalization of GaN Surfaces with 1-Alkenes. <i>Langmuir</i> , 2013, 29, 6296-6301.	3.5	11
42	Seebeck ozone sensors. , 2013, , .		1
43	Surface states and electronic structure of polar and nonpolar InN – An <i>in situ</i> photoelectron spectroscopy study. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	21
44	GaN(0001) surface states: Experimental and theoretical fingerprints to identify surface reconstructions. <i>Physical Review B</i> , 2013, 88, .	3.2	37
45	N-type conductivity and properties of carbon-doped InN(0001) films grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2013, 113, 033501.	2.5	9
46	Raman Spectroscopy of Amorphous Carbon Prepared by Pulsed Arc Discharge in Various Gas Mixtures. <i>Journal of Spectroscopy</i> , 2013, 2013, 1-6.	1.3	53
47	Surface properties of stoichiometric and defect-rich indium oxide films grown by MOCVD. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	23
48	Preparation and characterization of poly(L-histidine)/poly(L-glutamic acid) multilayer on silicon with nanometer-sized surface structures. <i>Journal of Colloid and Interface Science</i> , 2012, 386, 252-259.	9.4	7
49	Improved adhesion at titanium surfaces via laser-induced surface oxidation and roughening. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 558, 755-760.	5.6	55
50	Characterization of <i>in situ</i> grown and adsorbate-covered nonpolar InN surfaces using <i>in situ</i> photoelectron spectroscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 45-49.	1.8	20
51	Influence of plasma treatments on the properties of GaN/AlGaIn/GaN HEMT structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 1096-1098.	0.8	8
52	Valence band offsets at oxide/InN interfaces determined by X-ray photoelectron spectroscopy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 685-688.	0.8	10
53	Plasma affected 2DEG properties on GaN/AlGaIn/GaN HEMTs. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 938-941.	0.8	2
54	Changes of the near-surface chemical composition of the 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide room temperature ionic liquid under the influence of irradiation. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 1174-1181.	2.8	33

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55	Comprehensive surface analysis of GaN-capped AlGaIn/GaN high electron mobility transistors: Influence of growth method. <i>Journal of Applied Physics</i> , 2011, 110, 083527.	2.5	6
56	Morphology controlled open circuit voltage in polymer solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 247-249.	2.4	22
57	Changes in the valence band structure of as-grown InN(0001)-2x2 surfaces upon exposure to oxygen and water. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 1037-1040.	1.8	11
58	Determination of the valence band offsets at HfO <sub>2</sub> /InN(0001) and InN/In <sub>0.3</sub> Ga <sub>0.7</sub> N(0001) heterojunctions using X-ray photoelectron spectroscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 1335-1337.	1.8	2
59	Interaction of GaN(0001)-2x2 surfaces with H <sub>2</sub> O. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 169-172.	0.8	27
60	Electron-phonon-plasmon interaction in MBE-grown indium nitride – A high resolution electron energy loss spectroscopy (HREELS) study. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 173-176.	0.8	7
61	Angle-resolved photoelectron spectroscopy study of the GaN(0001)-2x2 surface. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1881-1883.	0.8	4
62	PAMBE growth and in-situ characterisation of clean (2x2) and (sqrt(3)xsqrt(3))R30 degrees reconstructed InN(0001) thin films. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 1173-1176.	1.5	18
63	Effect of Annealing on the Properties of Indium-Tin-Oxynitride Films as Ohmic Contacts for GaN-Based Optoelectronic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 1451-1456.	8.0	30
64	Electron transport properties of indium oxide – indium nitride metal-oxide-semiconductor heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 495-498.	0.8	6
65	Effects of X-ray radiation on the surface chemical composition of plasma deposited thin fluorocarbon films. <i>Polymer Degradation and Stability</i> , 2008, 93, 700-706.	5.8	12
66	Electronic structure of GaN(0001)-2x2 thin films grown by PAMBE. <i>Physica Status Solidi - Rapid Research Letters</i> , 2008, 2, 212-214.	2.4	20
67	Electrical and optical properties of In <sub>2</sub> O <sub>3</sub> nanoparticles prepared by MOCVD. , 2008, , .		0
68	Effect of surface oxidation on electron transport in InN thin films. <i>Journal of Applied Physics</i> , 2007, 101, 123705.	2.5	19
69	Electronic properties of organic semiconductor blends: Ambipolar mixtures of phthalocyanine and fullerene. <i>Applied Physics Letters</i> , 2007, 90, 212112.	3.3	39
70	Surface composition and electronic properties of indium tin oxide and oxynitride films. <i>Surface Science</i> , 2007, 601, 4082-4086.	1.9	18
71	AlGaIn/GaN biosensor – effect of device processing steps on the surface properties and biocompatibility. <i>Sensors and Actuators B: Chemical</i> , 2007, 123, 740-748.	7.8	67
72	Morphology and surface electronic structure of MBE grown InN. <i>Journal of Crystal Growth</i> , 2007, 306, 6-11.	1.5	41

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73	Temperature-Dependent Electronic and Vibrational Structure of the 1-Ethyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)amide Room-Temperature Ionic Liquid Surface: A Study with XPS, UPS, MIES, and HREELS. Journal of Physical Chemistry B, 2007, 111, 4801-4806.	2.6	98
74	Real-time Observation of Evolution Dynamics of Ge Nanostructures on Si Surfaces by Photoelectron Emission Microscopy. Applied Science and Convergence Technology, 2007, 16, 145-152.	0.9	0
75	Tuning of Surface Properties of AlGaIn/GaN Sensors for Nanodroplets and Picodroplets. IEEE Sensors Journal, 2006, 6, 881-886.	4.7	11
76	Electronic Structure of the Surface of the Ionic Liquid [EMIM][Tf <sub>2</sub> N] Studied by Metastable Impact Electron Spectroscopy (MIES), UPS, and XPS. Langmuir, 2006, 22, 7120-7123.	3.5	187
77	A Comparative Study on the Electronic Structure of the 1-Ethyl-3-Methylimidazolium Bis(trifluoromethylsulfonyl)amide RT-Ionic Liquid by Electron Spectroscopy and First Principles Calculations. Zeitschrift Fur Physikalische Chemie, 2006, 220, 1407-1416.	2.8	31
78	Doping efficiency and segregation of Si in AlN grown by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1420-1424.	0.8	1
79	Surface band bending at nominally undoped and Mg-doped InN by Auger Electron Spectroscopy. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 59-65.	1.8	39
80	Nanocrystalline AlN:Si field emission arrays for vacuum electronics. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1839-1844.	1.8	6
81	Correlation between structural and electrical properties of InN thin films prepared by molecular beam epitaxy. Superlattices and Microstructures, 2006, 40, 289-294.	3.1	9
82	Impact of Device Technology Processes on the Surface Properties and Biocompatibility of Group III Nitride Based Sensors. Materialwissenschaft Und Werkstofftechnik, 2006, 37, 919-923.	0.9	1
83	Electronic properties of C <sub>60</sub> /InP(001) heterostructures. Journal of Physics Condensed Matter, 2006, 18, 9841-9848.	1.8	9
84	Effect of dislocations on electrical and electron transport properties of InN thin films. I. Strain relief and formation of a dislocation network. Journal of Applied Physics, 2006, 100, 094902.	2.5	44
85	The role of Si as surfactant and donor in molecular-beam epitaxy of AlN. Journal of Applied Physics, 2005, 98, 093508.	2.5	36
86	Investigations of MBE grown InN and the influence of sputtering on the surface composition. Surface Science, 2004, 566-568, 849-855.	1.9	29
87	Thermal decomposition of indium phosphide: monitoring of metallic cluster growth. , 0, , .		0
88	High Temperature Graphene Formation on Capped and Uncapped SiC. Materials Science Forum, 0, 679-680, 785-788.	0.3	12
89	Corona Assisted Ga Based Nanowire Growth on 3C-SiC(111)/Si(111) Pseudosubstrates. Materials Science Forum, 0, 897, 642-645.	0.3	2