

Stefan Krischok

List of Publications by Year in descending order

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docs citations

92
times ranked

3046
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronic Structure of the Surface of the Ionic Liquid [EMIM][Tf ₂ N] Studied by Metastable Impact Electron Spectroscopy (MIES), UPS, and XPS. <i>Langmuir</i> , 2006, 22, 7120-7123.	3.5	187
2	H ₂ O interaction with bare and Li-precovered TiO ₂ : studies with electron spectroscopies (MIES and UPS). <i>Journal of Physical Chemistry B</i> , 2006, 10, 113-118.	1.9	113
3	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. <i>Journal of Physical Chemistry B</i> , 2007, 111, 4801-4806.	2.6	98
4	Plasma electrochemistry in ionic liquids: deposition of copper nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 1750-1755.	2.8	95
5	AlGa _N /Ga _N 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
6	Interaction between core and protection shell of N(butyl)4Cl- and N(octyl)4Cl-stabilized Pd colloids. <i>Surface Science</i> , 2002, 497, 321-332.	1.9	65
7	Improved adhesion at titanium surfaces via laser-induced surface oxidation and roughening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 558, 755-760.	5.6	55
8	The characterization of SrTiO ₃ (001) with MIES, UPS(HeI) and first-principles calculations. <i>Surface Science</i> , 2002, 515, 499-506.	1.9	53
9	Pyrolysis of cellulose and lignin. <i>Applied Surface Science</i> , 2009, 255, 8183-8189.	6.1	53
10	Water and Methanol Adsorption on MgO(100)/Mo(100) Studied by Electron Spectroscopies and Thermal Programmed Desorption. <i>Journal of Physical Chemistry B</i> , 2000, 104, 5738-5743.	2.6	47
11	Ag-adsorption on MgO: investigations with MIES and UPS. <i>Surface Science</i> , 2001, 473, 86-96.	1.9	46
12	Electrochemical lithiation of thin silicon based layers potentiostatically deposited from ionic liquid. <i>Electrochimica Acta</i> , 2015, 168, 403-413.	5.2	42
13	Morphology and surface electronic structure of MBE grown InN. <i>Journal of Crystal Growth</i> , 2007, 306, 6-11.	1.5	41
14	The role of surface electron accumulation and bulk doping for gas-sensing explored with single-crystalline In ₂ O ₃ thin films. <i>Sensors and Actuators B: Chemical</i> , 2016, 236, 909-916.	7.8	41
15	A time-of-flight secondary ion mass spectroscopy study of 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide RT-ionic liquid. <i>Surface Science</i> , 2008, 602, 3403-3407.	1.9	40
16	Electronic properties of organic semiconductor blends: Ambipolar mixtures of phthalocyanine and fullerene. <i>Applied Physics Letters</i> , 2007, 90, 212112.	3.3	39
17	Influence of ion implantation on titanium surfaces for medical applications. <i>Surface Science</i> , 2007, 601, 3856-3860.	1.9	37
18	Theoretical reconstruction and elementwise analysis of photoelectron spectra for imidazolium-based ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 19526.	2.8	37

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19	Nanoscale multilayer WC/C coatings developed for nanopositioning: Part I. Microstructures and mechanical properties. <i>Thin Solid Films</i> , 2005, 488, 132-139.	1.8	36
20	MIES and UPS(HeI) studies on reduced TiO ₂ (110). <i>Surface and Interface Analysis</i> , 2005, 37, 77-82.	1.8	35
21	Plasma Electrochemistry in 1-Butyl-3-methylimidazolium dicyanamide: Copper Nanoparticles from CuCl ₂ and CuCl ₂ . <i>Plasma Processes and Polymers</i> , 2011, 8, 32-37.	3.0	35
22	Electron promotion in collisions of protons with a LiF surface. <i>Physical Review B</i> , 1999, 59, 10950-10958.	3.2	33
23	Surface Electronic Structure of Imidazolium-Based Ionic Liquids Studied by Electron Spectroscopy. <i>E-Journal of Surface Science and Nanotechnology</i> , 2010, 8, 241-245.	0.4	33
24	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
25	Nanometer precise adjustment of the silver shell thickness during automated Au@Ag core-shell nanoparticle synthesis in micro fluid segment sequences. <i>Nanoscale</i> , 2014, 6, 5230.	5.6	33
26	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. <i>Zeitschrift Fur Physikalische Chemie</i> , 2006, 220, 1407-1416.	2.8	31
27	Effect of Annealing on the Properties of Indium-Tin Oxynitride Films as Ohmic Contacts for GaN-Based Optoelectronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 1451-1456.	8.0	30
28	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
29	Analysis of polar GaN surfaces with photoelectron and high resolution electron energy loss spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1658-1661.	1.5	29
30	DNA sensor based on AlGaIn/GaN high electron mobility transistor. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 1626-1629.	1.8	29
31	Formation of silicon grass: Nanomasking by carbon clusters in cyclic deep reactive ion etching. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, 011002.	1.2	29
32	Confirmation of intrinsic electron gap states at nonpolar GaN(1-100) surfaces combining photoelectron and surface optical spectroscopy. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	28
33	Enhanced lithium ion storage in TiO ₂ nanoparticles, induced by sulphur and carbon co-doping. <i>Journal of Power Sources</i> , 2016, 326, 270-278.	7.8	27
34	Processing Strategies for High-Performance Schottky Contacts on n-Type Oxide Semiconductors: Insights from In ₂ O ₃ . <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 27073-27087.	8.0	26
35	Morphology, Crystal Structure and Charge Transport in Donor-Acceptor Block Copolymer Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 12309-12318.	8.0	23
36	Morphology controlled open circuit voltage in polymer solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 247-249.	2.4	22

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37	Optimizing hydrogen evolution activity of nanoporous electrodes by dual-step surface engineering. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 87-95.	20.2	22
38	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
39	Characterization of as-grown and adsorbate-covered N-polar 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
40	Valence band structure of cellulose and lignin studied by XPS and DFT. <i>Cellulose</i> , 2012, 19, 1005-1011.	4.9	20
41	Effect of surface oxidation on electron transport in InN thin films. <i>Journal of Applied Physics</i> , 2007, 101, 123705.	2.5	19
42	Photoelectron spectroscopy on ionic liquid surfaces – Theory and experiment. <i>Journal of Molecular Liquids</i> , 2014, 192, 77-86.	4.9	19
43	Metal (Cu; Pd) adsorption on MgO: investigations with MIES and UPS. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 82, 167-173.	2.3	18
44	Surface composition and electronic properties of indium tin oxide and oxynitride films. <i>Surface Science</i> , 2007, 601, 4082-4086.	1.9	18
45	PAMBE growth and <i>in situ</i> characterisation of clean (2 × 2) and (√3 × √3) R30° reconstructed InN(0001) thin films. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 1173-1176.	1.5	18
46	Consequences of plasma oxidation and vacuum annealing on the chemical properties and electron accumulation of In ₂ O ₃ surfaces. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	18
47	A comparative analysis of electron spectroscopy and first-principles studies on Cu(Pd) adsorption on MgO. <i>Surface Science</i> , 2006, 600, 3815-3820.	1.9	17
48	Surface Electronic Structure of [XMI _m]Cl Probed by Surface-Sensitive Spectroscopy. <i>ChemPhysChem</i> , 2012, 13, 1718-1724.	2.1	17
49	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 & Interfaces</i> , 2014, 6, 11068-11081.	8.0	16
50	The interface between benzenes (C ₆ H ₆ ;C ₆ H ₅ Cl;2-C ₆ H ₄ OHCl) and amorphous solid water studied with metastable impact electron spectroscopy and ultraviolet photoelectron spectroscopy (HeI and II). <i>Journal of Chemical Physics</i> , 2004, 120, 5407-5413.	3.0	15
51	Towards Understanding the Cross-Sensitivity of In ₂ O ₃ Based Ozone Sensors: Effects of O ₃ , O ₂ and H ₂ O Adsorption at In ₂ O ₃ (111) Surfaces. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1700324.	1.5	15
52	Irreversible dilation of graphite composite anodes influenced by vinylene carbonate. <i>Journal of Power Sources</i> , 2020, 457, 228020.	7.8	15
53	Electrochemical deposition of silicon from a sulfolane-based electrolyte: Effect of applied potential. <i>Electrochemistry Communications</i> , 2019, 103, 7-11.	4.7	13
54	Lithium adsorption on TiO ₂ : studies with electron spectroscopies (MIES and UPS). <i>Surface and Interface Analysis</i> , 2005, 37, 83-89.	1.8	12

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55	An Electrochemical and Photoelectron Spectroscopy Study of a Low Temperature Liquid Metal Battery Based on an Ionic Liquid Electrolyte. <i>Journal of the Electrochemical Society</i> , 2016, 163, A2488-A2493.	2.9	12
56	Effects of Plasma Parameter on Morphological and Electrical Properties of Superconducting Nb-N Deposited by MO-PEALD. <i>IEEE Transactions on Applied Superconductivity</i> , 2017, 27, 1-7.	1.7	12
57	Tuning of Surface Properties of AlGaIn/GaN Sensors for Nanodroplets and Picodroplets. <i>IEEE Sensors Journal</i> , 2006, 6, 881-886.	4.7	11
58	AlInN/GaN based multi quantum well structures " growth and optical properties. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, S451.	0.8	11
59	Changes in the valence band structure of as-grown InN(0001) surfaces upon exposure to oxygen and water. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 1037-1040.	1.8	11
60	Thermal Functionalization of GaN Surfaces with 1-Alkenes. <i>Langmuir</i> , 2013, 29, 6296-6301.	3.5	11
61	MOVPE Growth and Characterization of AlInN FET Structures on Si(111). <i>Materials Research Society Symposia Proceedings</i> , 2008, 1068, 1.	0.1	10
62	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
63	Correlation between structural and electrical properties of InN thin films prepared by molecular beam epitaxy. <i>Superlattices and Microstructures</i> , 2006, 40, 289-294.	3.1	9
64	Electronic properties of C60/InP(001) heterostructures. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 9841-9848.	1.8	9
65	A novel bio-functionalization of AlGaIn/GaN-ISFETs for DNA-sensors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1810-1813.	0.8	9
66	Automated Parameter Extraction Of ScAlN MEMS Devices Using An Extended Euler-Bernoulli Beam Theory. <i>Sensors</i> , 2020, 20, 1001.	3.8	9
67	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
68	Two-dimensional electron gas of the In_2O_3 surface: Enhanced thermopower, electrical transport properties, and reduction by adsorbates or compensating acceptor doping. <i>Physical Review B</i> , 2020, 102, .	3.2	8
69	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
70	The influence of Sahara sand on the degradation behavior of float glass surfaces. <i>Journal of Non-Crystalline Solids</i> , 2018, 479, 16-28.	3.1	7
71	Comparative study of weather induced corrosion mechanisms of toughened and normal float glasses. <i>Glass Technology: European Journal of Glass Science and Technology Part A</i> , 2019, 60, 33-44.	0.2	7
72	Understanding the initial stages of Si electrodeposition under diffusion kinetic limitation in ionic liquid-based electrolytes. <i>Journal of Crystal Growth</i> , 2020, 531, 125346.	1.5	7

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73	Pyrolysis of wood-based polymer compounds. <i>Journal of Analytical and Applied Pyrolysis</i> , 2010, 87, 124-128.	5.5	6
74	Surface composition of [BMP][Tf ₂ N] and [PIM][Tf ₂ N] in the presence of NbF ₅ and TaF ₅ . A photoelectron spectroscopy study. <i>Journal of Molecular Liquids</i> , 2017, 226, 78-84.	4.9	6
75	Electrogravimetry and Structural Properties of Thin Silicon Layers Deposited in Sulfolane and Ionic Liquid Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 57526-57538.	8.0	6
76	Properties and electrochemical characteristics of boron-doped multi-walled carbon nanotubes. <i>Chemical Physics Letters</i> , 2015, 639, 217-224.	2.6	5
77	Influence of intermediate layers on the surface condition of laser crystallized silicon thin films and solar cell performance. <i>Journal of Applied Physics</i> , 2016, 119, 045306.	2.5	5
78	Nanoscale Morphological Changes at Lithium Interface, Triggered by the Electrolyte Composition and Electrochemical Cycling. <i>Journal of Chemistry</i> , 2019, 2019, 1-13.	1.9	5
79	Enhanced cycling performance of binder free silicon-based anode by application of electrochemically formed microporous substrate. <i>Electrochimica Acta</i> , 2021, 380, 138216.	5.2	4
80	Microgravimetric and Spectroscopic Analysis of Solid-Electrolyte Interphase Formation in Presence of Additives. <i>ChemPhysChem</i> , 2019, 20, 655-664.	2.1	3
81	Chemical changes of float glass surfaces induced by different sand particles and mineralogical phases. <i>Journal of Non-Crystalline Solids</i> , 2021, 566, 120868.	3.1	3
82	Determination of the valence band offsets at HfO ₂ /InN(0001) and InN/In _{0.3} Ga _{0.7} 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
83	Plasma affected 2DEG properties on GaN/AlGaN/GaN HEMTs. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 938-941.	0.8	2
84	Investigation of the influence of a commercial glass protector on float glass surfaces by x-ray photoelectron spectroscopy. <i>Journal of Commonwealth Law and Legal Education</i> , 2017, 58, 99-108.	0.5	2
85	Aluminum Electrode Insulation Dynamics via Interface Oxidation by Reactant Diffusion in Organic Layers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800474.	1.8	2
86	Ab-initio reconstruction of metastable-induced electron-emission spectra (MIES) for molecules. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020, 478, 62-69.	1.4	1
87	Reversible Sodiation of Electrochemically Deposited Binder- and Conducting Additive-Free Si-C Composite Layers. <i>Energy Technology</i> , 0, , 2101164.	3.8	1
88	Development of low gain avalanche detectors (LGAD) in frame of the acceptor removal phenomenon. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 0, , .	1.8	1
89	Anisotropy of the PTE Effect in Ni-Based Magnetoelectric Cantilevers: A Finite Element Method Analysis. <i>Sensors</i> , 2022, 22, 4958.	3.8	1