Steffen Oswald

List of Publications by Year
in descending order

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107	3,008	172443	189881
papers	citations	29 h-index	50 g-index

109	109	109	4240
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Auger- and X-ray Photoelectron Spectroscopy at Metallic Li Material: Chemical Shifts Related to Sample Preparation, Gas Atmosphere, and Ion and Electron Beam Effects. Batteries, 2022, 8, 24.	4.5	4
2	Stabilization of nanoscale iron films by self-terminated electrodeposition in sulfate electrolyte. Electrochimica Acta, 2022, 415, 140170.	5.2	1
3	Cellâ€“Material Interactions in Direct Contact Culture of Endothelial Cells on Biodegradable Iron-Based Stents Fabricated by Laser Powder Bed Fusion and Impact of Ion Release. ACS Applied Materials & Interfaces, 2022, 14, 439-451.	8.0	17
4	Rolledâ€Up Metal Oxide Microscaffolds to Study Early Bone Formation at Single Cell Resolution. Small, 2021, 17, e2005527.	10.0	5
5	Pt-RuAl bilayers as a model system for Pt wire bonding of high-temperature RuAl electrodes. Journal of Alloys and Compounds, 2020, 813, 152107.	5.5	6
6	The 18th European Conference on Applications of Surface and Interface Analysis. Surface and Interface Analysis, 2020, 52, 785-785.	1.8	0
7	XPS chemical state analysis of sputter depth profiling measurements for annealed TiAlâ€SiO₂ and TiAlâ€W layer stacks. Surface and Interface Analysis, 2020, 52, 924-928.	1.8	2
8	Phase Formation and High-Temperature Stability of Very Thin Co-Sputtered Ti-Al and Multilayered Ti/Al Films on Thermally Oxidized Si Substrates. Materials, 2020, 13, 2039.	2.9	7
9	Mo-La2O3 Multilayer Metallization Systems for High Temperature Surface Acoustic Wave Sensor Devices. Materials, 2019, 12, 2651.	2.9	10
10	Improving the oxidation resistance of RuAl thin films with Al2O3 or SiO2 cover layers. Journal of Alloys and Compounds, 2019, 776, 819-825.	5.5	20
11	S and B microalloying of biodegradable Fe-30Mn-1C - Effects on microstructure, tensile properties, in vitro degradation and cytotoxicity. Materials and Design, 2018, 142, 22-35.	7.0	28
12	AES and XPS depthâ€profiling of annealed AlN/Tiâ€Al/AlN films for highâ€temperature applications in SAW metallization. Surface and Interface Analysis, 2018, 50, 991-995.	1.8	4
13	Corrosion studies on Feâ€30Mnâ€1C alloy in chlorideâ€containing solutions with view to biomedical application. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 167-177.	1.5	20
14	Metal release and cell biological compatibility of betaâ€type Tiâ€40Nb containing indium. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1686-1697.	3.4	23
15	Electrochemical behavior of LiV3O8 positive electrode in hybrid Li,Naâ€“ion batteries. Journal of Power Sources, 2018, 373, 1-10.	7.8	15
16	Binding Energy Referencing for XPS in Alkali Metal-Based Battery Materials Research (II): Application to Complex Composite Electrodes. Batteries, 2018, 4, 36.	4.5	75
17	Aligned cuboid iron nanoparticles by epitaxial electrodeposition. Nanoscale, 2017, 9, 5315-5322.	5.6	8
18	Peak position differences observed during XPS sputter depth profiling of the SEI on lithiated and delithiated carbon-based anode material for Li-ion batteries. Applied Surface Science, 2017, 401, 408-413.	6.1	29

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19	Interface and stability analysis of Tantalum- and Titanium nitride thin films onto Lithiumniobate. Applied Surface Science, 2017, 425, 254-260.	6.1	8
20	The Influence of the Composition of Ru100â^'xAlx (x = 50, 55, 60, 67) Thin Films on Their Thermal Stability. Materials, 2017, 10, 277.	2.9	12
21	Evaluation of Surface Cleaning Procedures for CTGS Substrates for SAW Technology with XPS. Materials, 2017, 10, 1373.	2.9	9
22	Analysis of the thermal and temporal stability of Ta and Ti thin films onto SAWâ€“substrate materials (LiNbO₃ and LiTaO₃) using ARâ€XPS. Surface and Interface Analysis, 2016, 48, 570-574.	1.8	4
23	Auger and Xâ€ray photoelectron spectroscopy on lithiated HOPG. Surface and Interface Analysis, 2016, 48, 501-504.	1.8	4
24	Layered-to-Tunnel Structure Transformation and Oxygen Redox Chemistry in LiRhO2 upon Li Extraction and Insertion. Inorganic Chemistry, 2016, 55, 7079-7089.	4.0	20
25	Thermal oxidation behavior of glass-forming Tiâ€“Zrâ€“(Nb)â€“Si alloys. Journal of Materials Research, 2016, 31, 1264-1274.	2.6	5
26	Designing new biocompatible glassâ€forming Ti_{75â€‹}_xZr₁₀Nb_xSi₁₅ (xâ€‰=â€‰0, 15) alloys: corrosion, passivity, and apatite formation. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 27-38.	3.4	23
27	Role of 1,3-Dioxolane and LiNO₃Addition on the Long Term Stability of Nanostructured Silicon/Carbon Anodes for Rechargeable Lithium Batteries. Journal of the Electrochemical Society, 2016, 163, A557-A564.	2.9	83
28	Lithium Insertion into Li₂MoO₄: Reversible Formation of (Li₃Mo)O₄ with a Disordered Rock-Salt Structure. Chemistry of Materials, 2015, 27, 4485-4492.	6.7	27
29	Binding energy referencing for XPS in alkali metal-based battery materials research (I): Basic model investigations. Applied Surface Science, 2015, 351, 492-503.	6.1	61
30	Challenges for lithium species identification in complementary Auger and X-ray photoelectron spectroscopy. Journal of Power Sources, 2015, 288, 434-440.	7.8	13
31	Evaluation of a mobile vacuum transfer system for in vacuo XPS analysis using as-deposited Ti thin-films. Vacuum, 2015, 117, 81-84.	3.5	16
32	Effect of indium (In) on corrosion and passivity of a beta-type Tiâ€“Nb alloy in Ringer's solution. Applied Surface Science, 2015, 335, 213-222.	6.1	44
33	SEI-component formation on sub 5 nm sized silicon nanoparticles in Li-ion batteries: the role of electrode preparation, FEC addition and binders. Physical Chemistry Chemical Physics, 2015, 17, 24956-24967.	2.8	129
34	Chemical nanoroughening of Ti40Nb surfaces and its effect on human mesenchymal stromal cell response. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 31-41.	3.4	40
35	3d-Transition metal doped spinels as high-voltage cathode materials for rechargeable lithium-ion batteries. Progress in Solid State Chemistry, 2014, 42, 128-148.	7.2	35
36	Threeâ€Dimensionally â€œCurvedâ€•NiO Nanomembranes as Ultrahigh Rate Capability Anodes for Liâ€Ion Batteries with Long Cycle Lifetimes. Advanced Energy Materials, 2014, 4, 1300912.	19.5	263

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37	Analysis of surface preâ€treatment for SAWâ€substrate material (LiNbO₃) and deposited thin films of Ta/Ti using ARXPS. Surface and Interface Analysis, 2014, 46, 1033-1038.	1.8	9
38	XPS and AES sputterâ€depth profiling at surfaces of biocompatible passivated Tiâ€based alloys: concentration quantification considering chemical effects. Surface and Interface Analysis, 2014, 46, 683-688.	1.8	11
39	Electrochemical oxidation of trivalent chromium in a phosphate matrix: Li3Cr2(PO4)3 as cathode material for lithium ion batteries. Electrochimica Acta, 2014, 139, 356-364.	5.2	23
40	ARXPS measurement simulation for improved data interpretation at complex Ta/Liâ€niobate interfaces. Surface and Interface Analysis, 2014, 46, 1094-1098.	1.8	2
41	Unusual oxidation behavior of light metal hydride by tetrahydrofuran solvent molecules confined in ordered mesoporous carbon. Journal of Materials Research, 2014, 29, 55-63.	2.6	2
42	Analyses about the influence of the natural oxide layer of aluminium on the brazeability in a shielding gas furnace. Welding in the World, Le Soudage Dans Le Monde, 2013, 57, 449-455.	2.5	7
43	Structural Changes in the LiCrMnO4Cathode Material during Electrochemical Li Extraction and Insertion. Journal of the Electrochemical Society, 2013, 160, A3082-A3089.	2.9	16
44	Improved ARXPS data interpretation using nearâ€surface measuring angles. Surface and Interface Analysis, 2012, 44, 1124-1129.	1.8	6
45	Characterisation of oxide and hydroxide layers on technical aluminum materials using XPS. Vacuum, 2012, 86, 1216-1219.	3.5	83
46	Study of the Conversion Reaction Mechanism for Copper Borate as Electrode Material in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2011, 158, A898.	2.9	17
47	Layered LixMoO2Phases with Different Composition for Electrochemical Application: Structural Considerations. Chemistry of Materials, 2011, 23, 3429-3441.	6.7	17
48	XPS investigations of electrolyte/electrode interactions for various Li-ion battery materials. Analytical and Bioanalytical Chemistry, 2011, 400, 691-696.	3.7	48
49	Superconducting films fabricated by high-fluence Ga implantation in Si. Physical Review B, 2011, 83, .	3.2	20
50	A promising concept for using near-surface measuring angles in angle-resolved x-ray photoelectron spectroscopy considering elastic scattering effects. Journal of Applied Physics, 2011, 109, 034305.	2.5	5
51	Application of angle-resolved X-ray photon electron spectroscopy for interface and layer growth studies demonstrated on Ti/Ta-based films deposited on SiO2. Analytical and Bioanalytical Chemistry, 2010, 396, 2805-2812.	3.7	7
52	How is wettability of titanium surfaces influenced by their preparation and storage conditions?. Journal of Materials Science: Materials in Medicine, 2010, 21, 525-532.	3.6	22
53	Growth studies of Tiâ€based films deposited on Si and SiO₂ using angleâ€resolved XPS. Surface and Interface Analysis, 2010, 42, 1289-1294.	1.8	12
54	XPS investigations of valence changes during cycling of LiCrMnO₄â€based cathodes in Liâ€ion batteries. Surface and Interface Analysis, 2010, 42, 916-921.	1.8	17

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55	Li₃V(MoO₄)₃: A New Material for Both Li Extraction and Insertion. Chemistry of Materials, 2010, 22, 3165-3173.	6.7	51
56	SIMS measurement of oxygen content in Î³-TiAl single crystals and polycrystalline alloys with Nb addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 516, 54-57.	5.6	5
57	Quasi in situ XPS investigations on intercalation mechanisms in Li-ion battery materials. Analytical and Bioanalytical Chemistry, 2009, 393, 1871-1877.	3.7	36
58	Report on the 47th IUVSTA Workshop â€˜Angleâ€Resolved XPS: the current status and future prospects for angleâ€resolved XPS of nano and subnano filmsâ€™. Surface and Interface Analysis, 2009, 41, 840-857.	1.8	40
59	Passivity of polycrystalline NiMnGa alloys for magnetic shape memory applications. Corrosion Science, 2009, 51, 1163-1171.	6.6	30
60	Initial growth of Wâ€based films deposited on Si studied with ARXPS. Surface and Interface Analysis, 2008, 40, 776-780.	1.8	4
61	Modeling of complex surface structures for ARXPS. Surface and Interface Analysis, 2008, 40, 700-705.	1.8	21
62	Simulation of rough nanostructured surfaces for ARXPS. Surface Science, 2008, 602, 291-299.	1.9	13
63	Growth of thick chemical solution derived pyrochlore La2Zr2O7 buffer layers for YBa2Cu3O7â^'x coated conductors. Thin Solid Films, 2008, 516, 2099-2108.	1.8	47
64	Modeling of surface roughness for ARXPS. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1817-1821.	0.8	6
65	Growth studies of Ta-based films on Si with STM and XPS. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1830-1835.	0.8	2
66	Chemical solution deposition of YBa2Cu3O7â^'x coated conductors. Current Opinion in Solid State and Materials Science, 2006, 10, 205-216.	11.5	35
67	Angle-resolved XPS: a critical evaluation for various applications. Surface and Interface Analysis, 2006, 38, 590-594.	1.8	24
68	First stages of growth of cerium oxide deposited on alumina and reduced titania surfaces. Surface and Interface Analysis, 2006, 38, 510-513.	1.8	7
69	XPS depth profiling investigations on La2Zr2O7 layers prepared by chemical solution deposition. Mikrochimica Acta, 2006, 156, 121-124.	5.0	8
70	Non-destructive depth profile analysis using synchrotron radiation excited XPS. Mikrochimica Acta, 2006, 156, 99-101.	5.0	14
71	Computer simulation of angle-resolved x-ray photoelectron spectroscopy measurements for the study of surface and interface roughnesses. Journal of Applied Physics, 2006, 100, 104504.	2.5	25
72	XPS and AES investigations of hard magnetic Ndâ€“Feâ€“B films. Applied Surface Science, 2005, 252, 218-222.	6.1	7

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73	XPS and ARXPS investigations of ultra thin TaN films deposited on SiO2 and Si. Applied Surface Science, 2005, 252, 234-239.	6.1	42
74	Depth profile and interface analysis in the nm-range. Applied Surface Science, 2005, 252, 3-10.	6.1	35
75	Influence of sputtering conditions and electron energy on XPS depth profiling of Ge in SiO2. Crystal Research and Technology, 2005, 40, 1134-1138.	1.3	3
76	SIMS measurements of oxygen content in the Nd2Fe14B phase. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1240-1242.	2.3	6
77	Application of factor analysis in electron spectrometry (AES, XPS) for materials science. International Journal of Materials Research, 2005, 96, 972-982.	0.8	2
78	Etch Rate Retardation of Ga[sup +]-Ion Beam-Irradiated Silicon. Journal of the Electrochemical Society, 2005, 152, G875.	2.9	33
79	Highly textured La2Zr2O7buffer layers for YBCO-coated conductors prepared by chemical solution deposition. Superconductor Science and Technology, 2005, 18, 334-339.	3.5	57
80	Specific properties of fine SnO 2 powders connected with surface segregation. Analytical and Bioanalytical Chemistry, 2004, 378, 411-415.	3.7	18
81	XPS depth profile analysis of non-stoichiometric NiO films. Surface and Interface Analysis, 2004, 36, 17-22.	1.8	245
82	Quantitative ARXPS investigation of systems with ultrathin aluminium oxide layers. Surface and Interface Analysis, 2004, 36, 1600-1608.	1.8	30
83	Interface formation and reactions at Taâ€“Si and Taâ€“SiO2 interfaces studied by XPS and ARXPS. Journal of Electron Spectroscopy and Related Phenomena, 2004, 137-140, 229-233.	1.7	45
84	Monitoring Interface Interactions by XPS at Nanometric Tin Oxides Supported on Al2O3 and Sb2Ox. Journal of Physical Chemistry B, 2004, 108, 9905-9913.	2.6	27
85	XPS investigations of thin tantalum films on a silicon surface. Analytical and Bioanalytical Chemistry, 2003, 375, 902-905.	3.7	35
86	Changes of Auger parameter in doped SnO2 powders. Crystal Research and Technology, 2003, 38, 956-961.	1.3	5
87	Are measured values of the Auger parameter always independent of charging effects?. Surface and Interface Analysis, 2003, 35, 991-997.	1.8	9
88	Comparison of depth profiling techniques using ion sputtering from the practical point of view. Thin Solid Films, 2003, 425, 9-19.	1.8	46
89	X-ray photoelectron spectroscopy investigation of segregation processes at Sb and In doped SnO2. Chemical Physics, 2003, 286, 375-383.	1.9	18
90	Stress development in sputtered NiO thin films during heat treatment. Journal of Applied Physics, 2003, 94, 4853.	2.5	25

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91	Corrosion of highly coercive, highly textured Nd-Fe-B films. IEEE Transactions on Magnetics, 2003, 39, 2950-2952.	2.1	10
92	Calibration of XPS - energy scale for determination of the oxidation states of doping elements in SnO 2 powders. Analytical and Bioanalytical Chemistry, 2002, 374, 646-649.	3.7	18
93	Model investigations on the effect of Si transport on the nanocrystallization of amorphous FeSiB-(Cu,Nb). Analytical and Bioanalytical Chemistry, 2002, 374, 736-741.	3.7	2
94	XPS investigations of surface segregation of doping elements in SnO2. Applied Surface Science, 2001, 179, 301-306.	6.1	142
95	Surface-related investigations to characterize different preparation techniques of Sb-doped SnO2 powders. Surface and Interface Analysis, 2001, 31, 484-491.	1.8	23
96	Binding state information from XPS depth profiling: capabilities and limits. Applied Surface Science, 2001, 179, 307-315.	6.1	31
97	XPS and factor analysis for investigation of sputter-cleaned surfaces of metal (Re, Ir, Cr)â€“silicon thin films. Applied Surface Science, 2001, 179, 316-323.	6.1	23
98	Oxidation of Ge implanted into SiO2 layers: Modeling and XPS. Nuclear Instruments & Methods in Physics Research B, 2001, 178, 115-119.	1.4	6
99	XPS investigation with factor analysis for the study of Ge clustering in SiO2. Surface and Interface Analysis, 2000, 29, 249-254.	1.8	30
100	The transformation of Î²-FeSi 2 under Ar ion bombardment studied by XPS, AES and MÃ¶ssbauer spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2000, 160, 397-407.	1.4	14
101	XPS studies and factor analysis of PbS nanocrystal-doped SiO2 thin films. Journal of Electron Spectroscopy and Related Phenomena, 1999, 104, 161-171.	1.7	31
102	Factor analysis and XPS-data preprocessing for non-conducting samples. Fresenius' Journal of Analytical Chemistry, 1999, 365, 59-62.	1.5	7
103	Bombardment-induced silicide formation at rhenium-silicon interfaces studied by XPS and TEM. Fresenius' Journal of Analytical Chemistry, 1999, 365, 76-82.	1.5	18
104	Precipitation, ripening and chemical effects during annealing of Ge+ implanted SiO2 layers. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 969-974.	1.4	115
105	Core-level shifts at B- and Al-doped 6H-SiC studied by XPS. Surface and Interface Analysis, 1999, 27, 136-141.	1.8	29
106	Investigation of argon ion bombarded Re x Si 1-x thin film composites by XPS, SEM and AES. Fresenius' Journal of Analytical Chemistry, 1997, 358, 329-332.	1.5	5
107	Application of XPS and factor analysis for non-conducting materials. Surface and Interface Analysis, 1997, 25, 942-947.	1.8	37