

Wolfgang Speier

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4263288/publications.pdf>

Version: 2024-02-01

48
papers

4,542
citations

218677

26
h-index

206112

48
g-index

50
all docs

50
docs citations

50
times ranked

4417
citing authors

#	ARTICLE	IF	CITATIONS
1	Switching the electrical resistance of individual dislocations in single-crystalline SrTiO ₃ . Nature Materials, 2006, 5, 312-320.	27.5	1,581
2	Localized Metallic Conductivity and Self-Healing during Thermal Reduction of SrTiO ₃ . Physical Review Letters, 2002, 88, 075508.	7.8	269
3	TiO ₂ a prototypical memristive material. Nanotechnology, 2011, 22, 254001.	2.6	268
4	Surfaces of reduced and oxidized SrTiO ₃ from atomic force microscopy. Physical Review B, 1999, 60, 5909-5926.	3.2	237
5	L _{2,3} absorption spectra of the lighter 3d transition metals. Physical Review B, 1985, 32, 4905-4913.	3.2	212
6	2p absorption spectra of the 3d elements. Physical Review B, 1985, 32, 4899-4904.	3.2	208
7	Composition and growth mechanisms of alumina scales on FeCrAl-based alloys determined by SNMS. Applied Surface Science, 1991, 52, 271-287.	6.1	159
8	Nanoscale resistive switching in SrTiO ₃ thin films. Physica Status Solidi - Rapid Research Letters, 2007, 1, R86-R88.	2.4	151
9	Bremsstrahlung isochromat spectra and density-of-states calculations for the 3d and 4d transition metals. Physical Review B, 1984, 30, 6921-6930.	3.2	130
10	Formation of micro-crystals on the (100) surface of SrTiO ₃ at elevated temperatures. Surface Science, 2000, 460, 112-128.	1.9	123
11	Photoemission and inverse photoemission of transition-metal silicides. Physical Review B, 1989, 39, 6008-6016.	3.2	93
12	Studies of total density of states of metals up to 70 eV above E _F . Physical Review B, 1985, 32, 3597-3603.	3.2	87
13	Core-hole effects in the x-ray-absorption spectra of transition-metal silicides. Physical Review B, 1990, 41, 11899-11910.	3.2	81
14	Restructuring of the surface region in SrTiO ₃ . Applied Physics A: Materials Science and Processing, 1996, 64, 55-59.	2.3	78
15	Nature of the Resistive Switching Phenomena in TiO ₂ and SrTiO ₃ . Solid State Physics, 2014, , 353-559.	0.5	58
16	Influence of Dislocations in Transition Metal Oxides on Selected Physical and Chemical Properties. Crystals, 2018, 8, 241.	2.2	54
17	Appearance of Correlation Effects in U Intermetallics. Physical Review Letters, 1986, 57, 2215-2218.	7.8	48
18	Matrix elements in inverse X-ray photo-emission (bremsstrahlung isochromat spectroscopy). Journal of Physics C: Solid State Physics, 1988, 21, 2621-2633.	1.5	47

#	ARTICLE	IF	CITATIONS
19	Microscopic nature of the metal to insulator phase transition induced through electroreduction in single-crystal KNbO ₃ . Applied Physics Letters, 1992, 60, 1190-1192.	3.3	43
20	Cluster-like resistive switching of SrTiO ₃ :Nb surface layers. New Journal of Physics, 2013, 15, 103017.	2.9	43
21	Quantitative analysis of oxide films on ODS-alloys using MCs+-SIMS and e-beam SNMS. Fresenius' Journal of Analytical Chemistry, 1993, 346, 186-191.	1.5	39
22	Electronic structure and bonding properties in TiSi ₂ . European Physical Journal B, 1990, 78, 423-430.	1.5	35
23	Analysis and modelling of transport processes in alumina scales on high temperature alloys. Fresenius' Journal of Analytical Chemistry, 1993, 346, 318-322.	1.5	33
24	Analysis of composition and growth mechanisms of oxide scales on high temperature alloys by SNMS, SIMS, and RBS. Mikrochimica Acta, 1992, 107, 197-206.	5.0	31
25	Extended X-Ray Isochromat Fine Structure of Cu. Physical Review Letters, 1985, 55, 1693-1696.	7.8	28
26	The electronic structure of 4d and 5d silicides. Journal of Physics Condensed Matter, 1989, 1, 9117-9129.	1.8	28
27	Electronic structure of Z+1 impurities in metals. Physical Review B, 1990, 41, 2753-2757.	3.2	27
28	Local perturbation and induced magnetization originating from 3d impurities in Pd. Physical Review B, 1991, 43, 9558-9568.	3.2	26
29	Surface chemistry and molecular reactions on KNbO ₃ single crystal surfaces. Surface Science, 1993, 280, 179-184.	1.9	26
30	X-ray emission and absorption studies of silicides in relation to their electronic structure. Physica Scripta, 1990, 41, 629-633.	2.5	25
31	The electronic structure of NiAl and NiSi. Journal of Physics Condensed Matter, 1989, 1, 9131-9139.	1.8	23
32	Role of electron-energy losses in bremsstrahlung isochromat spectroscopy. Physical Review B, 1986, 34, 5177-5183.	3.2	22
33	Resistive Switching of a Quasi-Homogeneous Distribution of Filaments Generated at Heat-Treated TiO ₂ (110) Surfaces. Advanced Functional Materials, 2015, 25, 6382-6389.	14.9	22
34	Electronic structure of CaSi and CaSi ₂ . European Physical Journal B, 1988, 71, 69-74.	1.5	21
35	Surface layer on KNbO ₃ and the hysteresis loop anomaly. Journal of Physics and Chemistry of Solids, 1996, 57, 1765-1775.	4.0	21
36	Chemical inhomogeneity in the near-surface region of KTaO ₃ evolving at elevated temperatures. Journal of Physics Condensed Matter, 2000, 12, 4687-4697.	1.8	21

#	ARTICLE	IF	CITATIONS
37	Local surface conductivity of transition metal oxides mapped with true atomic resolution. <i>Nanoscale</i> , 2018, 10, 11498-11505.	5.6	21
38	Parametrization of the electronic structure of Z+1 impurities. <i>Physical Review B</i> , 1991, 43, 13916-13925.	3.2	20
39	Inhomogeneity of donor doping in SrTiO ₃ substrates studied by fluorescence-lifetime imaging microscopy. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	17
40	Core hole effects on electronic structure: Al in AlNi. <i>Journal of Physics Condensed Matter</i> , 1989, 1, 5981-5987.	1.8	16
41	Stability and Decomposition of Perovskite-Type Titanates upon High-Temperature Reduction. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1700222.	2.4	14
42	Cation Loss of BaCa _{0.393} Nb _{0.606} O _{2.91} in Aqueous Media: Amorphization at Room Temperature. <i>Journal of Solid State Chemistry</i> , 2000, 149, 262-275.	2.9	13
43	Electrically controlled transformation of memristive titanates into mesoporous titanium oxides via incongruent sublimation. <i>Scientific Reports</i> , 2018, 8, 3774.	3.3	12
44	The energy dependence of the Bremsstrahlung transition in solid materials. <i>Journal of Physics C: Solid State Physics</i> , 1988, 21, L1183-L1189.	1.5	10
45	Comment on "X-ray-photoelectron diffraction from a free-electron-metal valence band: Evidence for hole-state localization". <i>Physical Review Letters</i> , 1991, 66, 2834-2834.	7.8	9
46	Matrix elements in appearance potential spectroscopy of Al and its alloys. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1987, 42, 27-38.	1.7	5
47	Segregation phenomena in thin films of BaTiO ₃ . <i>Integrated Ferroelectrics</i> , 2001, 33, 303-310.	0.7	5
48	Formation of CoSi ₂ in SIMOX wafers by high dose cobalt implantation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1992, 12, 129-133.	3.5	2