

# Andreas Klein

## List of Publications by Citations

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271  
papers

9,173  
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49  
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81  
g-index

282  
ext. papers

9,989  
ext. citations

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L-index

#	Paper	IF	Citations
271	Nature of the band gap of In <sub>2</sub> O <sub>3</sub> revealed by first-principles calculations and x-ray spectroscopy. <i>Physical Review Letters</i> , <b>2008</b> , 100, 167402	7.4	498
270	First-principles study of intrinsic point defects in ZnO: Role of band structure, volume relaxation, and finite-size effects. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	425
269	Transparent Conducting Oxides for Photovoltaics: Manipulation of Fermi Level, Work Function and Energy Band Alignment. <i>Materials</i> , <b>2010</b> , 3, 4892-4914	3.5	300
268	Energy Band Alignment between Anatase and Rutile TiO <sub>2</sub> . <i>Journal of Physical Chemistry Letters</i> , <b>2013</b> , 4, 4182-4187	6.4	184
267	Enhanced specific grain boundary conductivity in nanocrystalline Y <sub>2</sub> O <sub>3</sub> -stabilized zirconia. <i>Solid State Ionics</i> , <b>1999</b> , 118, 331-339	3.3	172
266	Band structure of indium oxide: Indirect versus direct band gap. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	169
265	Surface states, surface potentials, and segregation at surfaces of tin-doped In <sub>2</sub> O <sub>3</sub> . <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	163
264	Electronic band structure of single-crystal and single-layer WS <sub>2</sub> : Influence of interlayer van der Waals interactions. <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	151
263	First-principles study of the structure and stability of oxygen defects in zinc oxide. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	145
262	Interface properties and band alignment of Cu <sub>2</sub> S/CdS thin film solar cells. <i>Thin Solid Films</i> , <b>2003</b> , 431-432, 477-482	2.2	142
261	Electronic properties of In <sub>2</sub> O <sub>3</sub> surfaces. <i>Applied Physics Letters</i> , <b>2000</b> , 77, 2009-2011	3.4	137
260	Preparation of RuO <sub>2</sub> /TiO <sub>2</sub> Mesoporous Heterostructures and Rationalization of Their Enhanced Photocatalytic Properties by Band Alignment Investigations. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 22098-22110	3.8	128
259	Surface potentials of magnetron sputtered transparent conducting oxides. <i>Thin Solid Films</i> , <b>2009</b> , 518, 1197-1203	2.2	125
258	Surface versus bulk electronic/defect structures of transparent conducting oxides: I. Indium oxide and ITO. <i>Journal Physics D: Applied Physics</i> , <b>2006</b> , 39, 3959-3968	3	117
257	Barrier height at (Ba,Sr)TiO <sub>3</sub> /Pt interfaces studied by photoemission. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	115
256	Interface Engineering of Inorganic Thin-Film Solar Cells [Materials-Science Challenges for Advanced Physical Concepts. <i>Advanced Materials</i> , <b>2009</b> , 21, 4196-4206	24	105
255	Energy band alignment at interfaces of semiconducting oxides: A review of experimental determination using photoelectron spectroscopy and comparison with theoretical predictions by the electron affinity rule, charge neutrality levels, and the common anion rule. <i>Thin Solid Films</i> , <b>2012</b> , 520, 3721-3728	2.2	103

254	Transparent Conducting Oxides: Electronic Structure-Property Relationship from Photoelectron Spectroscopy with in situ Sample Preparation. <i>Journal of the American Ceramic Society</i> , <b>2013</b> , 96, 331-345	3.8	100
253	Electronic and chemical properties of tin-doped indium oxide (ITO) surfaces and ITO/ZnO interfaces studied in-situ by photoelectron spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 4793-801	3.4	100
252	Efficiency limitations of thermally evaporated thin-film SnO <sub>2</sub> solar cells. <i>Journal Physics D: Applied Physics</i> , <b>2013</b> , 46, 305109	3	97
251	Electronic structure of In <sub>2</sub> O <sub>3</sub> and Sn-doped In <sub>2</sub> O <sub>3</sub> by hard x-ray photoemission spectroscopy. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	94
250	Band Alignment Engineering at Cu <sub>2</sub> O/ZnO Heterointerfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 21824-31	9.5	86
249	The Work Function of TiO <sub>2</sub> . <i>Surfaces</i> , <b>2018</b> , 1, 73-89	2.9	84
248	Fermi-level-dependent defect formation in Cu-chalcopyrite semiconductors. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 2283-2285	3.4	82
247	Reactive magnetron sputtering of Cu <sub>2</sub> O: Dependence on oxygen pressure and interface formation with indium tin oxide. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 113704	2.5	78
246	Thin film growth and band lineup of In <sub>2</sub> O <sub>3</sub> on the layered semiconductor InSe. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 5687-5691	2.5	77
245	Optimized chemical bath deposited CdS layers for the improvement of CdTe solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2011</b> , 95, 816-820	6.4	75
244	Energy band alignment in chalcogenide thin film solar cells from photoelectron spectroscopy. <i>Journal of Physics Condensed Matter</i> , <b>2015</b> , 27, 134201	1.8	73
243	Efficacy of the DFT + U formalism for modeling hole polarons in perovskite oxides. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	71
242	Band energy diagram of CdTe thin film solar cells. <i>Thin Solid Films</i> , <b>2002</b> , 403-404, 252-257	2.2	71
241	Polarization dependence of Schottky barrier heights at interfaces of ferroelectrics determined by photoelectron spectroscopy. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	66
240	Geometry, electronic structure and thermodynamic stability of intrinsic point defects in indium oxide. <i>Journal of Physics Condensed Matter</i> , <b>2009</b> , 21, 455801	1.8	65
239	Limitation of Fermi level shifts by polaron defect states in hematite photoelectrodes. <i>Nature Communications</i> , <b>2018</b> , 9, 4309	17.4	65
238	Defect chemistry and resistance degradation in Fe-doped SrTiO <sub>3</sub> single crystal. <i>Acta Materialia</i> , <b>2016</b> , 108, 229-240	8.4	64
237	Band lineup of lattice mismatched InSe/GaSe quantum well structures prepared by van der Waals epitaxy: Absence of interfacial dipoles. <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 3817-3821	2.5	64

236	Improved photocatalytic activity in RuO <sub>2</sub> -ZnO nanoparticulate heterostructures due to inhomogeneous space charge effects. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 5090-102	3.6	59
235	Studies of sputtered ZnTe films as interlayer for the CdTe thin film solar cell. <i>Thin Solid Films</i> , <b>2005</b> , 480-481, 204-207	2.2	58
234	In-Situ Preparation and Analysis of Functional Oxides. <i>Advanced Engineering Materials</i> , <b>2005</b> , 7, 945-949	3.5	56
233	Interface Properties of Dielectric Oxides. <i>Journal of the American Ceramic Society</i> , <b>2016</b> , 99, 369-387	3.8	55
232	Influence of Mg content on the band alignment at CdS(Zn,Mg)O interfaces. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 032101	3.4	54
231	CdTe thin film solar cells: Interrelation of nucleation, structure, and performance. <i>Thin Solid Films</i> , <b>2009</b> , 517, 2125-2131	2.2	53
230	Laterally inhomogeneous surface-potential distribution and photovoltage at clustered In/WSe <sub>2</sub> (0001) interfaces. <i>Physical Review B</i> , <b>1993</b> , 48, 14242-14252	3.3	53
229	Limits for n-type doping in In <sub>2</sub> O <sub>3</sub> and SnO <sub>2</sub> : A theoretical approach by first-principles calculations using hybrid-functional methodology. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 053511	2.5	52
228	Non-stoichiometry and electronic properties of interfaces. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 1890-1900	4.0	51
227	Barrier heights at the SnO <sub>2</sub> /Pt interface: In situ photoemission and electrical properties. <i>Surface Science</i> , <b>2008</b> , 602, 3246-3252	1.8	51
226	Intrinsic energy band alignment of functional oxides. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2014</b> , 8, 571-576	2.5	50
225	PbTiO <sub>3</sub> /SrTiO <sub>3</sub> interface: Energy band alignment and its relation to the limits of Fermi level variation. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	50
224	Surface and bulk properties of sputter deposited undoped and Sb-doped SnO <sub>2</sub> thin films. <i>Sensors and Actuators B: Chemical</i> , <b>2009</b> , 139, 665-672	8.5	49
223	Band lineup between CdS and ultra high vacuum-cleaved CuInS <sub>2</sub> single crystals. <i>Applied Physics Letters</i> , <b>1997</b> , 70, 1299-1301	3.4	49
222	Changes in electronic structure and chemical bonding upon crystallization of the phase change material GeSb <sub>2</sub> Te <sub>4</sub> . <i>Physical Review Letters</i> , <b>2008</b> , 100, 016402	7.4	48
221	Electronic surface properties of rf-magnetron sputtered InO:Sn. <i>Solid State Ionics</i> , <b>2004</b> , 173, 141-145	3.3	47
220	Density-functional-theory calculations of electronic band structure of single-crystal and single-layer WS <sub>2</sub> . <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	46
219	Influence of orbital contributions to the valence band alignment of Bi <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , BiFeO <sub>3</sub> , and Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> . <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	44

218	Photoemission study and band alignment of the CuInSe <sub>2</sub> (001)/CdS heterojunction. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 3067-3069	3.4	44
217	Electronic properties and interface characterization of phthalocyanine and Ru-polypyridine dyes on TiO <sub>2</sub> surface. <i>Surface Science</i> , <b>2003</b> , 539, 37-48	1.8	44
216	Analysis of the interfacial characteristics of BiVO <sub>4</sub> /metal oxide heterostructures and its implication on their junction properties. <i>Physical Chemistry Chemical Physics</i> , <b>2019</b> , 21, 5086-5096	3.6	43
215	Interface Investigation in Nanostructured BaTiO <sub>3</sub> /Silica Composite Ceramics. <i>Journal of the American Ceramic Society</i> , <b>2010</b> , 93, 865-874	3.8	42
214	Energy band alignment between Pb(Zr,Ti)O <sub>3</sub> and high and low work function conducting oxides from hole to electron injection. <i>Journal Physics D: Applied Physics</i> , <b>2010</b> , 43, 295301	3	42
213	Surface analysis of CdTe thin film solar cells. <i>Thin Solid Films</i> , <b>2001</b> , 387, 161-164	2.2	42
212	12% efficient CdTe/CdS thin film solar cells deposited by low-temperature close space sublimation. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 064508	2.5	40
211	In situ preparation and interface characterization of TiO <sub>2</sub> /Cu <sub>2</sub> S heterointerface. <i>Applied Physics Letters</i> , <b>2003</b> , 82, 2269-2271	3.4	40
210	Reactively magnetron sputtered Bi <sub>2</sub> O <sub>3</sub> thin films: Analysis of structure, optoelectronic, interface, and photovoltaic properties. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2014</b> , 211, 93-100	1.6	39
209	Growth regimes of CdTe deposited by close-spaced sublimation for application in thin film solar cells. <i>Thin Solid Films</i> , <b>2007</b> , 515, 5814-5818	2.2	39
208	Influence of Cu(In,Ga)Se <sub>2</sub> band gap on the valence band offset with CdS. <i>Thin Solid Films</i> , <b>2004</b> , 451-452, 420-423	2.2	39
207	Nanoscaled tin dioxide films processed from organotin-based hybrid materials: an organometallic route toward metal oxide gas sensors. <i>Nanoscale</i> , <b>2012</b> , 4, 6806-13	7.7	38
206	Influence of the PVD sputtering method on structural characteristics of SiCN-coatings II Comparison of RF, DC and HiPIMS sputtering and target configurations. <i>Surface and Coatings Technology</i> , <b>2011</b> , 205, S119-S123	4.4	38
205	Electronic structure of In <sub>2</sub> O <sub>3</sub> from resonant x-ray emission spectroscopy. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 022105	3.4	38
204	Chemical interaction of Na with cleaved (011) surfaces of CuInSe <sub>2</sub> . <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 5039-5043	2.5	38
203	In Situ Hall Effect Monitoring of Vacuum Annealing of In <sub>2</sub> O <sub>3</sub> Thin Films. <i>Materials</i> , <b>2015</b> , 8, 561-574	3.5	37
202	Surface energy controlled preferential orientation of thin films. <i>Journal Physics D: Applied Physics</i> , <b>2010</b> , 43, 055301	3	37
201	Reduction-induced Fermi level pinning at the interfaces between Pb(Zr,Ti)O <sub>3</sub> and Pt, Cu and Ag metal electrodes. <i>Journal Physics D: Applied Physics</i> , <b>2011</b> , 44, 255301	3	37

200	Chemical and electronic properties of the ITO/Al(2)O(3) interface. <i>Physical Chemistry Chemical Physics</i> , <b>2009</b> , 11, 3049-54	3.6	37
199	Barrier heights, polarization switching, and electrical fatigue in Pb(Zr,Ti)O <sub>3</sub> ceramics with different electrodes. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 104106	2.5	36
198	Formation and modification of Schottky barriers at the PZT/Pt interface. <i>Journal Physics D: Applied Physics</i> , <b>2009</b> , 42, 215302	3	35
197	A photoemission study of barrier and transport properties of the interfaces of Au and Cu with WSe <sub>2</sub> (0001) surfaces. <i>Surface Science</i> , <b>1994</b> , 321, 19-31	1.8	35
196	In situ photoelectron study of the (Ba,Sr)TiO <sub>3</sub> /RuO <sub>2</sub> contact formation. <i>Journal of the European Ceramic Society</i> , <b>2010</b> , 30, 187-192	6	34
195	Characterization of tellurium layers for back contact formation on close to technology treated CdTe surfaces. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3589-3598	2.5	34
194	Utilization of sputter depth profiling for the determination of band alignment at polycrystalline CdTe/CdS heterointerfaces. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 2297-2299	3.4	34
193	Influence of dopant species and concentration on grain boundary scattering in degenerately doped In <sub>2</sub> O <sub>3</sub> thin films. <i>Thin Solid Films</i> , <b>2016</b> , 614, 62-68	2.2	33
192	Properties of sputtered ZnO films and its interfaces with CdS. <i>Thin Solid Films</i> , <b>2003</b> , 431-432, 378-381	2.2	33
191	Self-Assembled Nanowire Networks by Deposition of Copper onto Layered-Crystal Surfaces. <i>Advanced Materials</i> , <b>2002</b> , 14, 1056	24	32
190	CdTe thin film solar cells with reduced CdS film thickness. <i>Thin Solid Films</i> , <b>2011</b> , 519, 7138-7141	2.2	31
189	Interface modification of CdTe thin film solar cells by CdCl <sub>2</sub> -activation. <i>Thin Solid Films</i> , <b>2003</b> , 431-432, 267-271	2.2	31
188	Water adsorption on UHV cleaved InP(110) surfaces. <i>Surface Science</i> , <b>2000</b> , 457, L337-L341	1.8	31
187	An optimized multilayer structure of CdS layer for CdTe solar cells application. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 5285-5289	5.7	30
186	Influence of material synthesis and doping on the transport properties of WSe <sub>2</sub> single crystals grown by selenium transport. <i>Solar Energy Materials and Solar Cells</i> , <b>1997</b> , 46, 175-186	6.4	30
185	Photovoltaic properties of WSe <sub>2</sub> single-crystals studied by photoelectron spectroscopy. <i>Solar Energy Materials and Solar Cells</i> , <b>1998</b> , 51, 181-191	6.4	30
184	Surface science studies of Cu containing back contacts for CdTe solar cells. <i>Thin Solid Films</i> , <b>2007</b> , 515, 6172-6174	2.2	29
183	Effect of in situ UHV CdCl <sub>2</sub> -activation on the electronic properties of CdTe thin film solar cells. <i>Thin Solid Films</i> , <b>2003</b> , 431-432, 84-89	2.2	29

182	XPS analysis of wet chemical etching of GaAs(110) by Br <sub>2</sub> H <sub>2</sub> O: comparison of emersion and model experiments. <i>Electrochimica Acta</i> , <b>2000</b> , 45, 4663-4672	6.7	29
181	Structural dipoles at interfaces between polar II-VI semiconductors CdS and CdTe and non-polar layered transition metal dichalcogenide semiconductors MoTe <sub>2</sub> and WSe <sub>2</sub> . <i>Semiconductor Science and Technology</i> , <b>2000</b> , 15, 514-522	1.8	29
180	Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> onto Sn-Doped In <sub>2</sub> O <sub>3</sub> : Absence of Self-Limited Adsorption during Initial Growth by Oxygen Diffusion from the Substrate and Band Offset Modification by Fermi Level Pinning in Al <sub>2</sub> O <sub>3</sub> . <i>Chemistry of Materials</i> , <b>2012</b> , 24, 4503-4510	9.6	28
179	Influence of substrate temperature, growth rate and TCO substrate on the properties of CSS deposited CdS thin films. <i>Thin Solid Films</i> , <b>2011</b> , 519, 7556-7559	2.2	28
178	Influence of sputter deposition parameters on the properties of tunable barium strontium titanate thin films for microwave applications. <i>Journal of the European Ceramic Society</i> , <b>2009</b> , 29, 1433-1442	6	28
177	ZnO and Its Applications. <i>Springer Series in Materials Science</i> , <b>2008</b> , 1-33	0.9	28
176	Carrier Generation and Inherent Off-Stoichiometry in Zn, Sn Codoped Indium Oxide (ZITO) Bulk and Thin-Film Specimens. <i>Journal of the American Ceramic Society</i> , <b>2008</b> , 91, 467-472	3.8	28
175	Band offset at the CuGaSe <sub>2</sub> /In <sub>2</sub> S <sub>3</sub> heterointerface. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 961-963	3.4	28
174	Electronically Decoupled Films of InSe Prepared by van der Waals Epitaxy: Localized and Delocalized Valence States. <i>Physical Review Letters</i> , <b>1998</b> , 80, 361-364	7.4	28
173	Orientation dependent ionization potential of In <sub>2</sub> O <sub>3</sub> : a natural source for inhomogeneous barrier formation at electrode interfaces in organic electronics. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 334203	1.8	27
172	Oriented growth and band alignment at the CdTe/CdS interface. <i>Thin Solid Films</i> , <b>2001</b> , 387, 158-160	2.2	27
171	PVD of copper sulfide (Cu <sub>2</sub> S) for PIN-structured solar cells. <i>Journal Physics D: Applied Physics</i> , <b>2013</b> , 46, 495112	3	26
170	Comparison between the structural, morphological and optical properties of CdS layers prepared by Close Space Sublimation and RF magnetron sputtering for CdTe solar cells. <i>Thin Solid Films</i> , <b>2011</b> , 519, 7596-7599	2.2	26
169	Properties of SiCN coatings for high temperature applications [Comparison of RF-, DC- and HPPMS-sputtering. <i>Surface and Coatings Technology</i> , <b>2010</b> , 205, S21-S27	4.4	26
168	Electronic properties of WS <sub>2</sub> monolayer films. <i>Thin Solid Films</i> , <b>2000</b> , 380, 221-223	2.2	26
167	Band offsets at the ZnSe/CuGaSe <sub>2</sub> (001) heterointerface. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 1099-1101	3.4	26
166	Highly oriented layers of the three-dimensional semiconductor CdTe on the two-dimensional layered semiconductors MoTe <sub>2</sub> and WSe <sub>2</sub> . <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 5718-5722	2.5	26
165	Sputter-deposited polycrystalline tantalum-doped SnO <sub>2</sub> layers. <i>Thin Solid Films</i> , <b>2014</b> , 555, 173-178	2.2	25

164	Band alignment of differently treated TCO/CdS interface. <i>Thin Solid Films</i> , <b>2009</b> , 517, 2558-2561	2.2	25
163	Quasi van der Waals epitaxy of ZnSe on the layered chalcogenides InSe and GaSe. <i>Thin Solid Films</i> , <b>2000</b> , 380, 263-265	2.2	25
162	Deposition and characterization of highly p-type antimony doped ZnTe thin films. <i>Thin Solid Films</i> , <b>2009</b> , 517, 2149-2152	2.2	24
161	Role of copper interstitials in CuInSe <sub>2</sub> : First-principles calculations. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	24
160	The In <sub>2</sub> O <sub>3</sub> /CdTe interface: A possible contact for thin film solar cells?. <i>Applied Physics A: Materials Science and Processing</i> , <b>2006</b> , 82, 281-285	2.6	24
159	Study of electrical fatigue by defect engineering in organic light-emitting diodes. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2015</b> , 192, 26-51	3.1	23
158	Pinning of the Fermi Level in CuFeO <sub>2</sub> by Polaron Formation Limiting the Photovoltage for Photochemical Water Splitting. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1910432	15.6	23
157	Investigations on RF-magnetron sputtered Co <sub>3</sub> O <sub>4</sub> thin films regarding the solar energy conversion properties. <i>Journal Physics D: Applied Physics</i> , <b>2016</b> , 49, 155306	3	23
156	Chemical character of BC <sub>x</sub> N <sub>y</sub> layers grown by CVD with trimethylamine borane. <i>X-Ray Spectrometry</i> , <b>2009</b> , 38, 68-73	0.9	23
155	Fermi level-dependent defect formation at Cu(In,Ga)Se <sub>2</sub> interfaces. <i>Applied Surface Science</i> , <b>2000</b> , 166, 508-512	6.7	23
154	Low temperature adsorption of water on cleaved GaAs(110) surfaces. <i>Surface Science</i> , <b>1996</b> , 366, L685-L688	6.8	23
153	H <sub>2</sub> O adsorption on the layered chalcogenide semiconductors WSe <sub>2</sub> , InSe and GaSe. <i>Surface Science</i> , <b>1992</b> , 269-270, 909-914	1.8	23
152	Fermi Level Positions and Induced Band Bending at Single Crystalline Anatase (101) and (001) Surfaces: Origin of the Enhanced Photocatalytic Activity of Facet Engineered Crystals. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1802195	21.8	23
151	Influence of grain boundaries and interfaces on the electronic structure of polycrystalline CuO thin films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2016</b> , 213, 1615-1624	1.6	22
150	Energy-Band Alignment of BiVO <sub>4</sub> from Photoelectron Spectroscopy of Solid-State Interfaces. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 20861-20870	3.8	22
149	Domain wall stability in ferroelectrics with space charges. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 084110	2.5	22
148	A Space-Charge Treatment of the Increased Concentration of Reactive Species at the Surface of a Ceria Solid Solution. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 14516-14520	16.4	22
147	Nitrogen doping of ZnTe and its influence on CdTe/ZnTe interfaces. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 062112	3.4	22



146	Surface potentials of (111), (110) and (100) oriented CeO <sub>2</sub> thin films. <i>Applied Surface Science</i> , <b>2016</b> , 377, 1-8	6.7	21
145	A possible way to reduce absorber layer thickness in thin film CdTe solar cells. <i>Thin Solid Films</i> , <b>2013</b> , 535, 233-236	2.2	21
144	Annealing effects on the chemical deposited CdS films and the electrical properties of CdS/CdTe solar cells. <i>Materials Research Bulletin</i> , <b>2011</b> , 46, 194-198	5.1	21
143	Surface potential changes of semiconducting oxides monitored by high-pressure photoelectron spectroscopy: Importance of electron concentration at the surface. <i>Solid State Ionics</i> , <b>2006</b> , 177, 3123-3127	3.3	21
142	Electrical properties of (Ba, Sr)TiO <sub>3</sub> thin films with Pt and ITO electrodes: dielectric and rectifying behaviour. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 334202	1.8	20
141	Partial density of states in the CuInSe <sub>2</sub> valence bands. <i>Journal of Applied Physics</i> , <b>1997</b> , 81, 7806-7809	2.5	20
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11	Spectral Calibrated and Confocal Photoluminescence of Cu <sub>2</sub> S Thin-Film Absorber. <i>Materials Research Society Symposia Proceedings</i> , <b>2013</b> , 1538, 191-196		1
10	Interdiffusion at the BaCuSeF/ZnTe interface. <i>Thin Solid Films</i> , <b>2011</b> , 519, 7369-7373	2.2	1
9	Single crystal growth of p-doped CdSiAs <sub>2</sub> . <i>Journal of Crystal Growth</i> , <b>1989</b> , 97, 665-671	1.6	1
8	Fermi Energy Limitation at E <sub>CuGaO2</sub> Interfaces Induced by Electrochemical Oxidation/Reduction of Cu. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 9117-9125	6.1	1
7	Origin of Surface Reduction upon Water Adsorption on Oriented NiO Thin Films and Its Relation to Electrochemical Activity. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 1303-1315	3.8	0
6	Electroceraamics XVII - The 2020 virtual conference experience at TU Darmstadt. <i>Open Ceramics</i> , <b>2021</b> , 6, 100114	3.3	0
5	Influence of Defects on the Schottky Barrier Height at BaTiO <sub>3</sub> /RuO <sub>2</sub> Interfaces. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2021</b> , 218, 2100143	1.6	0
4	Influence of dopant segregation on the work function and electrical properties of Ge-doped in comparison to Sn-doped In <sub>2</sub> O <sub>3</sub> thin films (Phys. Status Solidi A 2017). <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1770109	1.6	
3	Fermi Level Engineering for Large Permittivity in BaTiO <sub>3</sub> -Based Multilayers. <i>Surfaces</i> , <b>2020</b> , 3, 567-578	2.9	



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