

# Andreas Klein

## List of Publications by Year in descending order

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| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Nature of the Band Gap of $\ln_2\text{O}_3$ Revealed by First-Principles Calculations and X-Ray Spectroscopy. Physical Review Letters, 2008, 100, 167402.   | 2.9 | 576       |
| 2  | First-principles study of intrinsic point defects in ZnO: Role of band structure, volume relaxation, and finite-size effects. Physical Review B, 2006, 73, .  | 1.1 | 463       |
| 3  | Transparent Conducting Oxides for Photovoltaics: Manipulation of Fermi Level, Work Function and Energy Band Alignment. Materials, 2010, 3, 4892-4914.   | 1.3 | 360       |
| 4  | Energy Band Alignment between Anatase and Rutile $\text{TiO}_2$ . Journal of Physical Chemistry Letters, 2013, 4, 4182-4187.  | 2.1 | 210       |
| 5  | Enhanced specific grain boundary conductivity in nanocrystalline $\text{Y}_2\text{O}_3$ -stabilized zirconia. Solid State Ionics, 1999, 118, 331-339.   | 1.3 | 192       |
| 6  | Band structure of indium oxide: Indirect versus direct band gap. Physical Review B, 2007, 75, .   | 1.1 | 180       |
| 7  | Surface states, surface potentials, and segregation at surfaces of tin-doped $\text{In}_2\text{O}_3$ . Physical Review B, 2006, 73, .   | 1.1 | 175       |
| 8  | Electronic band structure of single-crystal and single-layer $\text{WS}_2$ : Influence of interlayer van der Waals interactions. Physical Review B, 2001, 64, .   | 1.1 | 165       |
| 9  | First-principles study of the structure and stability of oxygen defects in zinc oxide. Physical Review B, 2005, 72, .   | 1.1 | 165       |
| 10 | Interface properties and band alignment of $\text{Cu}_2\text{S}/\text{CdS}$ thin film solar cells. Thin Solid Films, 2003, 431-432, 477-482.  | 0.8 | 160       |
| 11 | The Work Function of $\text{TiO}_2$ . Surfaces, 2018, 1, 73-89.   | 1.0 | 157       |
| 12 | Preparation of $\text{RuO}_2/\text{TiO}_2$ Mesoporous Heterostructures and Rationalization of Their Enhanced Photocatalytic Properties by Band Alignment Investigations. Journal of Physical Chemistry C, 2013, 117, 22098-22110.   | 1.5 | 155       |
| 13 | Electronic properties of $\text{In}_2\text{O}_3$ surfaces. Applied Physics Letters, 2000, 77, 2009-2011.  | 1.5 | 143       |
| 14 | Surface potentials of magnetron sputtered transparent conducting oxides. Thin Solid Films, 2009, 518, 1197-1203.  | 0.8 | 136       |
| 15 | 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. Thin Solid Films, 2012, 520, 3721-3728. | 0.8 | 128       |
| 16 | Surface versus bulk electronic/defect structures of transparent conducting oxides: I. Indium oxide and ITO. Journal Physics D: Applied Physics, 2006, 39, 3959-3968.  | 1.3 | 126       |
| 17 | Barrier height at $\text{BaO}/\text{TiO}_2$ interface studied by photoemission. Physical Review B, 2008, 77, .  |     |           |
| 18 | Transparent Conducting Oxides: Electronic Structure – Property Relationship from Photoelectron Spectroscopy with <i>in situ</i> Sample Preparation. Journal of the American Ceramic Society, 2013, 96, 331-345.   | 1.9 | 123       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Electronic structure of $\text{In}_{2-x}\text{Sn}_x\text{S}_3$ thin films. <i>Physical Review B</i> , 2010, 81, .   | 1.1  | 114       |
| 20 | Interface Engineering of Inorganic Thin-Film Solar Cells – Materials Science Challenges for Advanced Physical Concepts. <i>Advanced Materials</i> , 2009, 21, 4196-4206.  | 11.1 | 113       |
| 21 | Efficiency limitations of thermally evaporated thin-film SnS solar cells. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 305109.   | 1.3  | 112       |
| 22 | Electronic and Chemical Properties of Tin-Doped Indium Oxide (ITO) Surfaces and ITO/ZnPC Interfaces Studied In-situ by Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2006, 110, 4793-4801. | 1.2  | 108       |
| 23 | Band Alignment Engineering at $\text{Cu}_2\text{O}/\text{ZnO}$ Heterointerfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 21824-21831.  | 4.0  | 101       |
| 24 | Limitation of Fermi level shifts by polaron defect states in hematite photoelectrodes. <i>Nature Communications</i> , 2018, 9, 4309.  | 5.8  | 95        |
| 25 | Energy band alignment in chalcogenide thin film solar cells from photoelectron spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 134201.   | 0.7  | 92        |
| 26 | Optimized chemical bath deposited CdS layers for the improvement of CdTe solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 816-820.  | 3.0  | 91        |
| 27 | Fermi-level-dependent defect formation in Cu-chalcopyrite semiconductors. <i>Applied Physics Letters</i> , 1999, 74, 2283-2285.   | 1.5  | 88        |
| 28 | Reactive magnetron sputtering of $\text{Cu}_2\text{O}$ : Dependence on oxygen pressure and interface formation with indium tin oxide. <i>Journal of Applied Physics</i> , 2011, 109, .                            | 1.1  | 87        |
| 29 | Thin film growth and band lineup of $\text{In}_2\text{O}_3$ on the layered semiconductor $\text{InSe}$ . <i>Journal of Applied Physics</i> , 1999, 86, 5687-5691.   | 1.1  | 86        |
| 30 | Efficacy of the DFT+U formalism for modeling hole polarons in perovskite oxides. <i>Physical Review B</i> , 2014, 90, .   | 1.1  | 86        |
| 31 | Band energy diagram of CdTe thin film solar cells. <i>Thin Solid Films</i> , 2002, 403-404, 252-257.  | 0.8  | 83        |
| 32 | Thin Film Solar Cells: Materials Science at Interfaces. <i>Advanced Engineering Materials</i> , 2005, 7, 914-920.   | 1.6  | 74        |
| 33 | Polarization dependence of Schottky barrier heights at interfaces of ferroelectrics determined by photoelectron spectroscopy. <i>Physical Review B</i> , 2012, 86, .  | 1.1  | 74        |
| 34 | Improved photocatalytic activity in $\text{RuO}_2/\text{ZnO}$ nanoparticulate heterostructures due to inhomogeneous space charge effects. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5090-5102.       | 1.3  | 73        |
| 35 | Defect chemistry and resistance degradation in Fe-doped $\text{SrTiO}_3$ single crystal. <i>Acta Materialia</i> , 2016, 108, 229-240.   | 3.8  | 73        |
| 36 | Geometry, electronic structure and thermodynamic stability of intrinsic point defects in indium oxide. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 455801.   | 0.7  | 71        |



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|----|---|-----|-----------|
| 55 | Electronic surface properties of rf-magnetron sputtered InO:Sn. Solid State Ionics, 2004, 173, 141-145.   | 1.3 | 52        |
| 56 | Surface analysis of CdTe thin film solar cells. Thin Solid Films, 2001, 387, 161-164.   | 0.8 | 51        |
| 57 | 12% efficient CdTe/CdS thin film solar cells deposited by low-temperature close space sublimation. Journal of Applied Physics, 2011, 110, .   | 1.1 | 51        |
| 58 | Design of Lead-Free Antiferroelectric (1-x)NaNbO <sub>3</sub> (x)SrSnO <sub>3</sub> Compositions Guided by First-Principles Calculations. Chemistry of Materials, 2021, 33, 266-274.  | 3.2 | 50        |
| 59 | Electronic properties and interface characterization of phthalocyanine and Ru-polypyridine dyes on TiO <sub>2</sub> surface. Surface Science, 2003, 539, 37-48.   | 0.8 | 49        |
| 60 | In Situ Hall Effect Monitoring of Vacuum Annealing of In <sub>2</sub> O <sub>3</sub> :H Thin Films. Materials, 2015, 8, 561-574.  | 1.3 | 48        |
| 61 | Photoemission study and band alignment of the CuInSe <sub>2</sub> (001)/CdS heterojunction. Applied Physics Letters, 2004, 84, 3067-3069.   | 1.5 | 47        |
| 62 | Energy band alignment between Pb(Zr,Ti)O <sub>3</sub> and high and low work function conducting oxides from hole to electron injection. Journal Physics D: Applied Physics, 2010, 43, 295301.   | 1.3 | 47        |
| 63 | Characterization of tellurium layers for back contact formation on close to technology treated CdTe surfaces. Journal of Applied Physics, 2003, 94, 3589-3598.  | 1.1 | 44        |
| 64 | Growth regimes of CdTe deposited by close-spaced sublimation for application in thin film solar cells. Thin Solid Films, 2007, 515, 5814-5818.  | 0.8 | 44        |
| 65 | Interface Investigation in Nanostructured BaTiO <sub>3</sub> /Silica Composite Ceramics. Journal of the American Ceramic Society, 2010, 93, 865-874.  | 1.9 | 44        |
| 66 | Surface energy controlled preferential orientation of thin films. Journal Physics D: Applied Physics, 2010, 43, 055301.   | 1.3 | 43        |
| 67 | Influence of the PVD sputtering method on structural characteristics of SiCN-coatings Comparison of RF, DC and HiPIMS sputtering and target configurations. Surface and Coatings Technology, 2011, 205, S119-S123.                        | 2.2 | 43        |
| 68 | Reduction-induced Fermi level pinning at the interfaces between Pb(Zr,Ti)O <sub>3</sub> and Pt, Cu and Ag metal electrodes. Journal Physics D: Applied Physics, 2011, 44, 255301.   | 1.3 | 43        |
| 69 | Reactively magnetron sputtered Bi <sub>2</sub> O <sub>3</sub> thin films: Analysis of structure, optoelectronic, interface, and photovoltaic properties. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 93-100. | 0.8 | 43        |
| 70 | Influence of Cu(In,Ga)Se <sub>2</sub> band gap on the valence band offset with CdS. Thin Solid Films, 2004, 451-452, 420-423.   | 0.8 | 42        |
| 71 | Electronic structure of In <sub>2</sub> O <sub>3</sub> from resonant x-ray emission spectroscopy. Applied Physics Letters, 2009, 94, .  | 1.5 | 42        |
| 72 | Utilization of sputter depth profiling for the determination of band alignment at polycrystalline CdTe/CdS heterointerfaces. Applied Physics Letters, 2002, 81, 2297-2299.  | 1.5 | 41        |

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|----|---|------|-----------|
| 73 | Chemical interaction of Na with cleaved (011) surfaces of CuInSe <sub>2</sub> . Journal of Applied Physics, 1996, 80, 5039-5043.  | 1.1  | 40        |
| 74 | In situ preparation and interface characterization of TiO <sub>2</sub> /Cu <sub>2</sub> S heterointerface. Applied Physics Letters, 2003, 82, 2269-2271.  | 1.5  | 40        |
| 75 | Nanoscaled tin dioxide films processed from organotin-based hybrid materials: an organometallic route toward metal oxide gas sensors. Nanoscale, 2012, 4, 6806.   | 2.8  | 40        |
| 76 | Influence of dopant species and concentration on grain boundary scattering in degenerately doped In <sub>2</sub> O <sub>3</sub> thin films. Thin Solid Films, 2016, 614, 62-68.   | 0.8  | 40        |
| 77 | Chemical and electronic properties of the ITO/Al <sub>2</sub> O <sub>3</sub> interface. Physical Chemistry Chemical Physics, 2009, 11, 3049.  | 1.3  | 39        |
| 78 | Barrier heights, polarization switching, and electrical fatigue in Pb(Zr,Ti)O <sub>3</sub> ceramics with different electrodes. Journal of Applied Physics, 2010, 108, .   | 1.1  | 39        |
| 79 | A photoemission study of barrier and transport properties of the interfaces of Au and Cu with WSe <sub>2</sub> (0001) surfaces. Surface Science, 1994, 321, 19-31.  | 0.8  | 38        |
| 80 | Energy-Band Alignment of BiVO <sub>4</sub> from Photoelectron Spectroscopy of Solid-State Interfaces. Journal of Physical Chemistry C, 2018, 122, 20861-20870.  | 1.5  | 38        |
| 81 | Pinning of the Fermi Level in CuFeO <sub>2</sub> by Polaron Formation Limiting the Photovoltage for Photochemical Water Splitting. Advanced Functional Materials, 2020, 30, 1910432.  | 7.8  | 38        |
| 82 | Interface modification of CdTe thin film solar cells by CdCl <sub>2</sub> -activation. Thin Solid Films, 2003, 431-432, 267-271.  | 0.8  | 37        |
| 83 | In situ photoelectron study of the (Ba,Sr)TiO <sub>3</sub> /RuO <sub>2</sub> contact formation. Journal of the European Ceramic Society, 2010, 30, 187-192.   | 2.8  | 37        |
| 84 | Self-Assembled Nanowire Networks by Deposition of Copper onto Layered-Crystal Surfaces. Advanced Materials, 2002, 14, 1056.   | 11.1 | 36        |
| 85 | Properties of sputtered ZnO films and its interfaces with CdS. Thin Solid Films, 2003, 431-432, 378-381.  | 0.8  | 36        |
| 86 | Formation and modification of Schottky barriers at the PZT/Pt interface. Journal Physics D: Applied Physics, 2009, 42, 215302.  | 1.3  | 36        |
| 87 | CdTe thin film solar cells with reduced CdS film thickness. Thin Solid Films, 2011, 519, 7138-7141.   | 0.8  | 36        |
| 88 | 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. Journal of Physics Condensed Matter, 2011, 23, 334203.  | 0.7  | 36        |
| 89 | 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> . Chemistry of Materials, 2012, 24, 4503-4510. | 3.2  | 36        |
| 90 | Photovoltaic properties of WSe <sub>2</sub> single-crystals studied by photoelectron spectroscopy. Solar Energy Materials and Solar Cells, 1998, 51, 181-191.   | 3.0  | 34        |

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|-----|---|------|-----------|
| 91  | Effect of in situ UHV CdCl <sub>2</sub> -activation on the electronic properties of CdTe thin film solar cells. Thin Solid Films, 2003, 431-432, 84-89.   | 0.8  | 34        |
| 92  | Investigations on RF-magnetron sputtered Co <sub>3</sub> O <sub>4</sub> thin films regarding the solar energy conversion properties. Journal Physics D: Applied Physics, 2016, 49, 155306.  | 1.3  | 34        |
| 93  | Influence of material synthesis and doping on the transport properties of WSe <sub>2</sub> single crystals grown by selenium transport. Solar Energy Materials and Solar Cells, 1997, 46, 175-186.  | 3.0  | 33        |
| 94  | Surface science studies of Cu containing back contacts for CdTe solar cells. Thin Solid Films, 2007, 515, 6172-6174.  | 0.8  | 33        |
| 95  | ZnO and Its Applications. Springer Series in Materials Science, 2008, , 1-33.   | 0.4  | 33        |
| 96  | Deposition and characterization of highly p-type antimony doped ZnTe thin films. Thin Solid Films, 2009, 517, 2149-2152.  | 0.8  | 33        |
| 97  | Electrocatalytic Properties of (100)-, (110)-, and (111)-Oriented NiO Thin Films toward the Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2018, 122, 22252-22263.   | 1.5  | 33        |
| 98  | Water adsorption on UHV cleaved InP(110) surfaces. Surface Science, 2000, 457, L337-L341.   | 0.8  | 32        |
| 99  | Domain wall stability in ferroelectrics with space charges. Journal of Applied Physics, 2014, 115, .  | 1.1  | 32        |
| 100 | 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. Advanced Energy Materials, 2018, 8, 1802195.                        | 10.2 | 32        |
| 101 | Electronically Decoupled Films of InSe Prepared by van der Waals Epitaxy: Localized and Delocalized Valence States. Physical Review Letters, 1998, 80, 361-364.   | 2.9  | 31        |
| 102 | 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. Electrochimica Acta, 2000, 45, 4663-4672.   | 2.6  | 31        |
| 103 | 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> . Semiconductor Science and Technology, 2000, 15, 514-522. | 1.0  | 31        |
| 104 | Band offset at the CuGaSe <sub>2</sub> /In <sub>2</sub> S <sub>3</sub> heterointerface. Applied Physics Letters, 2004, 85, 961-963.   | 1.5  | 31        |
| 105 | An optimized multilayer structure of CdS layer for CdTe solar cells application. Journal of Alloys and Compounds, 2011, 509, 5285-5289.   | 2.8  | 31        |
| 106 | Comparison between the structural, morphological and optical properties of CdS layers prepared by Close Space Sublimation and RF magnetron sputtering for CdTe solar cells. Thin Solid Films, 2011, 519, 7596-7599.                                     | 0.8  | 31        |
| 107 | Highly oriented layers of the three-dimensional semiconductor CdTe on the two-dimensional layered semiconductors MoTe <sub>2</sub> and WSe <sub>2</sub> . Journal of Applied Physics, 1996, 80, 5718-5722.  | 1.1  | 30        |
| 108 | Nitrogen doping of ZnTe and its influence on CdTe/ZnTe interfaces. Applied Physics Letters, 2007, 90, 062112.   | 1.5  | 30        |



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|-----|--|-----|-----------|
| 109 | Properties of SiCN coatings for high temperature applications – Comparison of RF-, DC- and HPPMS-sputtering. Surface and Coatings Technology, 2010, 205, S21-S27.                                      | 2.2 | 30        |
| 110 | Influence of substrate temperature, growth rate and TCO substrate on the properties of CSS deposited CdS thin films. Thin Solid Films, 2011, 519, 7556-7559.   | 0.8 | 30        |
| 111 | Surface potentials of (111), (110) and (100) oriented CeO <sub>2</sub> thin films. Applied Surface Science, 2016, 377, 1-8.  | 3.1 | 30        |
| 112 | Fermi level-dependent defect formation at Cu(In,Ga)Se <sub>2</sub> interfaces. Applied Surface Science, 2000, 166, 508-512.  | 3.1 | 29        |
| 113 | Oriented growth and band alignment at the CdTe/CdS interface. Thin Solid Films, 2001, 387, 158-160.  | 0.8 | 29        |
| 114 | Carrier Generation and Inherent Off-Stoichiometry in Zn, Sn Codoped Indium Oxide (ZITO) Bulk and Thin-Film Specimens. Journal of the American Ceramic Society, 2008, 91, 467-472.                      | 1.9 | 29        |
| 115 | Influence of sputter deposition parameters on the properties of tunable barium strontium titanate thin films for microwave applications. Journal of the European Ceramic Society, 2009, 29, 1433-1442. | 2.8 | 29        |
| 116 | Sputter-deposited polycrystalline tantalum-doped SnO <sub>2</sub> layers. Thin Solid Films, 2014, 555, 173-178.  | 0.8 | 29        |
| 117 | Influence of grain boundaries and interfaces on the electronic structure of polycrystalline CuO thin films. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1615-1624.        | 0.8 | 29        |
| 118 | Quasi van der Waals epitaxy of ZnSe on the layered chalcogenides InSe and GaSe. Thin Solid Films, 2000, 380, 263-265.  | 0.8 | 28        |
| 119 | Band offsets at the ZnSe/CuGaSe <sub>2</sub> (001) heterointerface. Applied Physics Letters, 1999, 74, 1099-1101.  | 1.5 | 27        |
| 120 | Electronic properties of WS <sub>2</sub> monolayer films. Thin Solid Films, 2000, 380, 221-223.  | 0.8 | 27        |
| 121 | PVD of copper sulfide (Cu <sub>2</sub> S) for PIN-structured solar cells. Journal Physics D: Applied Physics, 2013, 46, 495112.  | 1.3 | 27        |
| 122 | A Space-Charge Treatment of the Increased Concentration of Reactive Species at the Surface of a Ceria Solid Solution. Angewandte Chemie - International Edition, 2017, 56, 14516-14520.                | 7.2 | 27        |
| 123 | H <sub>2</sub> O adsorption on the layered chalcogenide semiconductors WSe <sub>2</sub> , InSe and GaSe. Surface Science, 1992, 269-270, 909-914.  | 0.8 | 26        |
| 124 | Band alignment of differently treated TCO/CdS interface. Thin Solid Films, 2009, 517, 2558-2561.   | 0.8 | 26        |
| 125 | A possible way to reduce absorber layer thickness in thin film CdTe solar cells. Thin Solid Films, 2013, 535, 233-236.   | 0.8 | 26        |
| 126 | Nickel Oxide Selectively Deposited on the {101} Facet of Anatase TiO <sub>2</sub> Nanocrystal Bipyramids for Enhanced Photocatalysis. ACS Applied Nano Materials, 2019, 2, 4793-4803.                  | 2.4 | 26        |



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|-----|--|-----|-----------|
| 127 | The In <sub>2</sub> O <sub>3</sub> /CdTe interface: A possible contact for thin film solar cells?. Applied Physics A: Materials Science and Processing, 2006, 82, 281-285.   | 1.1 | 25        |
| 128 | Annealing effects on the chemical deposited CdS films and the electrical properties of CdS/CdTe solar cells. Materials Research Bulletin, 2011, 46, 194-198.   | 2.7 | 25        |
| 129 | Role of copper interstitials in CuInSe <sub>2</sub> $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow /} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ : First-principles calculations. Physical Review B, 2011, 84, . | 1.1 | 25        |
| 130 | SnO <sub>2</sub> Films Deposited by Ultrasonic Spray Pyrolysis: Influence of Al Incorporation on the Properties. Molecules, 2019, 24, 2797.  | 1.7 | 25        |
| 131 | Low temperature adsorption of water on cleaved GaAs(110) surfaces. Surface Science, 1996, 366, L685-L688.  | 0.8 | 24        |
| 132 | Chemical character of BC <sub>x</sub> N <sub>y</sub> layers grown by CVD with trimethylamine borane. X-Ray Spectrometry, 2009, 38, 68-73.  | 0.9 | 24        |
| 133 | Electrical properties of (Ba, Sr)TiO <sub>3</sub> thin films with Pt and ITO electrodes: dielectric and rectifying behaviour. Journal of Physics Condensed Matter, 2011, 23, 334202.   | 0.7 | 24        |
| 134 | Growth and surface properties of epitaxial SnO <sub>2</sub> . Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1997-2004.  | 0.8 | 24        |
| 135 | Study of electrical fatigue by defect engineering in organic light-emitting diodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 192, 26-51.  | 1.7 | 24        |
| 136 | Perspectives of the concept of van der Waals epitaxy: growth of lattice mismatched GaSe(0001) films on Si(111), Si(110) and Si(100). Thin Solid Films, 2000, 380, 276-281.   | 0.8 | 23        |
| 137 | Alternative back contacts for CdTe solar cells: a photoemission study of the VSe <sub>2</sub> /CdTe and TiSe <sub>2</sub> /CdTe interface formation. Thin Solid Films, 2003, 431-432, 382-386.   | 0.8 | 23        |
| 138 | Copper (I) Oxide (Cu <sub>2</sub> O) based back contact for p-i-n CdTe solar cells. Progress in Photovoltaics: Research and Applications, 2016, 24, 1229-1236.   | 4.4 | 23        |
| 139 | Polarisation dependence of Schottky barrier heights at ferroelectric BaTiO <sub>3</sub> /RuO <sub>2</sub> interfaces: influence of substrate orientation and quality. Journal Physics D: Applied Physics, 2016, 49, 295304.  | 1.3 | 23        |
| 140 | Defect Modulation Doping. Advanced Functional Materials, 2019, 29, 1807906.  | 7.8 | 23        |
| 141 | Partial density of states in the CuInSe <sub>2</sub> valence bands. Journal of Applied Physics, 1997, 81, 7806-7809.   | 1.1 | 22        |
| 142 | Surface potential changes of semiconducting oxides monitored by high-pressure photoelectron spectroscopy: Importance of electron concentration at the surface. Solid State Ionics, 2006, 177, 3123-3127.   | 1.3 | 22        |
| 143 | Junction formation of CuInSe <sub>2</sub> with CdS: A comparative study of dry and wet interfaces. Thin Solid Films, 2007, 515, 6112-6118.   | 0.8 | 22        |
| 144 | Multi-Level Cell Properties of a Bilayer Cu <sub>2</sub> O/Al <sub>2</sub> O <sub>3</sub> Resistive Switching Device. Nanomaterials, 2019, 9, 289.   | 1.9 | 22        |

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|-----|---|-----|-----------|
| 145 | An option for the surface science on Cu chalcopyrites: the selenium capping and decapping process. Surface Science, 2004, 557, 263-268.   | 0.8 | 21        |
| 146 | In situ photoemission study of the contact formation of (Ba,Sr)TiO <sub>3</sub> with Cu and Au. Solid State Ionics, 2006, 177, 1659-1664.   | 1.3 | 21        |
| 147 | Piezotronic effect at Schottky barrier of a metal-ZnO single crystal interface. Journal of Applied Physics, 2017, 121, 155701.  | 1.1 | 21        |
| 148 | Chemical passivation of Si(111) capped by a thin GaSe layer. Applied Surface Science, 2000, 167, 122-124.   | 3.1 | 20        |
| 149 | Electronic Properties of Van Der Waals-Epitaxy Films and Interfaces. Physics and Chemistry of Materials With Low-dimensional Structures, 2002, , 317-402.                                       | 1.0 | 20        |
| 150 | Interfaces of chalcogenide solar cells: a study of the composition at the Cu(In,Ga)Se <sub>2</sub> /CdS contact. Thin Solid Films, 2005, 480-481, 110-117.                                      | 0.8 | 20        |
| 151 | Evidence for surface dipole modifications in In <sub>2</sub> O <sub>3</sub> -based transparent conductors. Applied Physics Letters, 2008, 92, .   | 1.5 | 20        |
| 152 | Thermal stability, morphology and electronic band gap of Zn(NCN). Solid State Sciences, 2013, 23, 50-57.  | 1.5 | 20        |
| 153 | Reversible metal-insulator transition of Ar-irradiated LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interfaces. Physical Review B, 2015, 92, .  |     |           |
| 154 | Highly conductive grain boundaries in copper oxide thin films. Journal of Applied Physics, 2016, 119, .   | 1.1 | 20        |
| 155 | heterointerfaces prepared by Van der Waals epitaxy. Journal of Crystal Growth, 1995, 146, 439-443.  | 0.7 | 19        |
| 156 | Interfaces in CdTe Solar Cells: From Idealized Concepts to Technology. Materials Research Society Symposia Proceedings, 2005, 865, 611.   | 0.1 | 19        |
| 157 | BiVO <sub>4</sub> Surface Reduction upon Water Exposure. ACS Energy Letters, 2019, 4, 2522-2528.  | 8.8 | 19        |
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