

Lothar Weinhardt

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153
papers

4,191
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58
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167
ext. papers

4,630
ext. citations

5.3
avg, IF

4.78
L-index

#	Paper	IF	Citations
153	Record Open-Circuit Voltage Wide-Bandgap Perovskite Solar Cells Utilizing 2D/3D Perovskite Heterostructure. <i>Advanced Energy Materials</i> , 2019 , 9, 1803699	21.8	235
152	Flat conduction-band alignment at the CdS/CuInSe ₂ thin-film solar-cell heterojunction. <i>Applied Physics Letters</i> , 2001 , 79, 4482-4484	3.4	203
151	Cliff-like conduction band offset and KCN-induced recombination barrier enhancement at the CdS/Cu ₂ ZnSnS ₄ thin-film solar cell heterojunction. <i>Applied Physics Letters</i> , 2011 , 99, 222105	3.4	158
150	Isotope and temperature effects in liquid water probed by x-ray absorption and resonant x-ray emission spectroscopy. <i>Physical Review Letters</i> , 2008 , 100, 027801	7.4	153
149	Electronic Surface Level Positions of WO ₃ Thin Films for Photoelectrochemical Hydrogen Production. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 3078-3082	3.8	149
148	Soft X-ray-induced decomposition of amino acids: an XPS, mass spectrometry, and NEXAFS study. <i>Radiation Research</i> , 2004 , 161, 346-58	3.1	123
147	Bridging the efficiency gap: fully bridged dinuclear Cu(I)-complexes for singlet harvesting in high-efficiency OLEDs. <i>Advanced Materials</i> , 2015 , 27, 2538-43	24	118
146	Ultrafast core-hole-induced dynamics in water probed by x-ray emission spectroscopy. <i>Physical Review Letters</i> , 2005 , 94, 227401	7.4	111
145	Soft X-ray Induced Decomposition of Phenylalanine and Tyrosine: A Comparative Study. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 4557-4565	2.8	94
144	High-efficiency in situ resonant inelastic x-ray scattering (iRIXS) endstation at the Advanced Light Source. <i>Review of Scientific Instruments</i> , 2017 , 88, 033106	1.7	86
143	Using Photoelectron Spectroscopy and Quantum Mechanics to Determine d-Band Energies of Metals for Catalytic Applications. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 24016-24026	3.8	75
142	Enhancement of photoluminescence in manganese-doped ZnS nanoparticles due to a silica shell. <i>Journal of Chemical Physics</i> , 2003 , 118, 8945-8953	3.9	73
141	Solid and liquid spectroscopic analysis (SALSA)--a soft x-ray spectroscopy endstation with a novel flow-through liquid cell. <i>Review of Scientific Instruments</i> , 2009 , 80, 123102	1.7	71
140	High-resolution, high-transmission soft x-ray spectrometer for the study of biological samples. <i>Review of Scientific Instruments</i> , 2009 , 80, 063103	1.7	71
139	Formation of a K-In-Se Surface Species by NaF/KF Postdeposition Treatment of Cu(In,Ga)Se Thin-Film Solar Cell Absorbers. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 3581-3589	9.5	70
138	Band alignment at the CdS/Cu(In,Ga)S ₂ interface in thin-film solar cells. <i>Applied Physics Letters</i> , 2005 , 86, 062109	3.4	70
137	Depth-resolved band gap in Cu(In,Ga)(S,Se) ₂ thin films. <i>Applied Physics Letters</i> , 2008 , 93, 244103	3.4	65

136	CdS and Cd(OH) ₂ formation during Cd treatments of Cu(In,Ga)(S,Se) ₂ thin-film solar cell absorbers. <i>Applied Physics Letters</i> , 2003 , 82, 571-573	3.4	65
135	Impact of KCN etching on the chemical and electronic surface structure of Cu ₂ ZnSnS ₄ thin-film solar cell absorbers. <i>Applied Physics Letters</i> , 2011 , 99, 152111	3.4	60
134	Nuclear dynamics and spectator effects in resonant inelastic soft x-ray scattering of gas-phase water molecules. <i>Journal of Chemical Physics</i> , 2012 , 136, 144311	3.9	58
133	Labile or stable: can homoleptic and heteroleptic PyrPHOS-copper complexes be processed from solution?. <i>Inorganic Chemistry</i> , 2014 , 53, 7837-47	5.1	57
132	Band alignment at the i-ZnO/CdS interface in Cu(In,Ga)(S,Se) ₂ thin-film solar cells. <i>Applied Physics Letters</i> , 2004 , 84, 3175-3177	3.4	56
131	Impact of a RbF Postdeposition Treatment on the Electronic Structure of the CdS/Cu(In,Ga)Se ₂ Heterojunction in High-Efficiency Thin-Film Solar Cells. <i>ACS Energy Letters</i> , 2017 , 2, 2383-2387	20.1	54
130	Chemical and electronic surface structure of 20%-efficient Cu(In,Ga)Se ₂ thin film solar cell absorbers. <i>Applied Physics Letters</i> , 2009 , 95, 052106	3.4	54
129	Synthesis, structure and spectroscopic characterization of water-soluble CdS nanoparticles. <i>Chemical Physics Letters</i> , 2003 , 379, 443-451	2.5	52
128	Fuchs et al. Reply:. <i>Physical Review Letters</i> , 2008 , 100,	7.4	47
127	A liquid flow cell to study the electronic structure of liquids with soft X-rays. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008 , 585, 172-177	1.2	45
126	Cadmium Free Cu ₂ ZnSnS ₄ Solar Cells with 9.7% Efficiency. <i>Advanced Energy Materials</i> , 2019 , 9, 1900439	21.8	42
125	Resonant inelastic soft x-ray scattering of CdS: A two-dimensional electronic structure map approach. <i>Physical Review B</i> , 2009 , 79,	3.3	42
124	Electronic level alignment at the deeply buried absorber/Mo interface in chalcopyrite-based thin film solar cells. <i>Applied Physics Letters</i> , 2008 , 93, 042110	3.4	42
123	Probing hydrogen bonding orbitals: resonant inelastic soft X-ray scattering of aqueous NH ₃ . <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 27145-53	3.6	41
122	Native oxidation and Cu-poor surface structure of thin film Cu ₂ ZnSnS ₄ solar cell absorbers. <i>Applied Physics Letters</i> , 2011 , 99, 112103	3.4	41
121	RIXS investigations of liquids, solutions, and liquid/solid interfaces. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013 , 188, 111-120	1.7	39
120	Resonant X-ray emission spectroscopy of liquid water: Novel instrumentation, high resolution, and the map approach. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010 , 177, 206-211	1.7	38
119	Towards Printed Organic Light-Emitting Devices: A Solution-Stable, Highly Soluble Cu -NHetPHOS. <i>Chemistry - A European Journal</i> , 2016 , 22, 16400-16405	4.8	37

118	Vacuum-Assisted Growth of Low-Bandgap Thin Films (FA0.8MA0.2Sn0.5Pb0.5I3) for All-Perovskite Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 1902583	21.8	36
117	Nuclear dynamics in the core-excited state of aqueous ammonia probed by resonant inelastic soft x-ray scattering. <i>Physical Review B</i> , 2011 , 84,	3.3	35
116	Surface and bulk properties of CuGaSe ₂ thin films. <i>Journal of Physics and Chemistry of Solids</i> , 2003 , 64, 1553-1557	3.9	35
115	Zn(O,OH) layers in chalcopyrite thin-film solar cells: Valence-band maximum versus composition. <i>Journal of Applied Physics</i> , 2005 , 98, 053702	2.5	33
114	Ultrafast proton dynamics in aqueous amino acid solutions studied by resonant inelastic soft X-ray scattering. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 13757-64	3.4	32
113	Monitoring chemical reactions at a liquid-solid interface: Water on CuIn(S,Se) ₂ thin film solar cell absorbers. <i>Journal of Chemical Physics</i> , 2003 , 119, 10467-10470	3.9	30
112	Characterization of Sulfur Bonding in CdS:O Buffer Layers for CdTe-based Thin-Film Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 16382-6	9.5	29
111	Improved current collection in WO ₃ :Mo/WO ₃ bilayer photoelectrodes. <i>Journal of Materials Research</i> , 2010 , 25, 45-51	2.5	29
110	Electronic structure of Cu ₂ ZnSnS ₄ probed by soft x-ray emission and absorption spectroscopy. <i>Physical Review B</i> , 2011 , 84,	3.3	29
109	Resonant inelastic soft x-ray scattering of Be chalcogenides. <i>Physical Review B</i> , 2006 , 73,	3.3	29
108	Surface modifications of Cu(In,Ga)S ₂ thin film solar cell absorbers by KCN and H ₂ O ₂ -H ₂ SO ₄ treatments. <i>Journal of Applied Physics</i> , 2006 , 100, 024907	2.5	28
107	The electronic structure of the [Zn(S,O)/ZnS]/CuInS ₂ heterointerface - Impact of post-annealing. <i>Chemical Physics Letters</i> , 2006 , 433, 71-74	2.5	28
106	Ion-Solvation-Induced Molecular Reorganization in Liquid Water Probed by Resonant Inelastic Soft X-ray Scattering. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 4143-8	6.4	27
105	Chemical structures of the Cu(In,Ga)Se ₂ /Mo and Cu(In,Ga)(S,Se) ₂ /Mo interfaces. <i>Physical Review B</i> , 2008 , 78,	3.3	27
104	Electronic structure of the Zn(O,S)/Cu(In,Ga)Se ₂ thin-film solar cell interface. <i>Progress in Photovoltaics: Research and Applications</i> , 2016 , 24, 1142-1148	6.8	27
103	Chemical properties of the Cu(In,Ga)Se ₂ /Mo/glass interfaces in thin film solar cells. <i>Thin Solid Films</i> , 2007 , 515, 6119-6122	2.2	26
102	Impact of Cd ²⁺ -treatment on the band alignment at the ILGAR-ZnO/CuIn(S,Se) ₂ heterojunction. <i>Thin Solid Films</i> , 2003 , 431-432, 272-276	2.2	24
101	Damp-heat induced sulfate formation in Cu(In,Ga)(S,Se) ₂ -based thin film solar cells. <i>Applied Physics Letters</i> , 2002 , 81, 4550-4552	3.4	24

100	Nondestructive depth-resolved spectroscopic investigation of the heavily intermixed In ₂ S ₃ /Cu(In,Ga)Se ₂ interface. <i>Applied Physics Letters</i> , 2010 , 96, 184101	3.4	23
99	Three-dimensional structure of the buffer/absorber interface in CdS/CuGaSe ₂ based thin film solar cells. <i>Applied Physics Letters</i> , 2009 , 95, 173502	3.4	23
98	Resonant inelastic soft x-ray scattering, x-ray absorption spectroscopy, and density functional theory calculations of the electronic bulk band structure of CdS. <i>Physical Review B</i> , 2007 , 75,	3.3	23
97	"Building block picture" of the electronic structure of aqueous cysteine derived from resonant inelastic soft X-ray scattering. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 13142-50	3.4	22
96	Inducing and monitoring photoelectrochemical reactions at surfaces and buried interfaces in Cu(In,Ga)(S,Se) ₂ thin-film solar cells. <i>Applied Physics Letters</i> , 2005 , 86, 172102	3.4	22
95	Mo incorporation in WO ₃ thin film photoanodes: Tailoring the electronic structure for photoelectrochemical hydrogen production. <i>Applied Physics Letters</i> , 2010 , 96, 032107	3.4	21
94	CdS/Cu(In,Ga)Se ₂ interface formation in high-efficiency thin film solar cells. <i>Applied Physics Letters</i> , 2010 , 97, 074101	3.4	21
93	Impact of Annealing-Induced Intermixing on the Electronic Level Alignment at the In ₂ S ₃ /Cu(In,Ga)Se ₂ Thin-Film Solar Cell Interface. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2120-4	3.5	19
92	Sulfur gradient-driven Se diffusion at the CdS/CuIn(S,Se) ₂ solar cell interface. <i>Applied Physics Letters</i> , 2010 , 96, 182102	3.4	19
91	ZnBeCdS Interlayer Formation at the CdS/Cu ₂ ZnSnSe ₄ Thin-Film Solar Cell Interface. <i>ACS Energy Letters</i> , 2017 , 2, 1632-1640	20.1	18
90	Effects of postdeposition treatments on surfaces of CdTe/CdS solar cells. <i>Applied Physics Letters</i> , 2010 , 97, 172109	3.4	18
89	Soft x-ray emission spectroscopy studies of the electronic structure of silicon supersaturated with sulfur. <i>Applied Physics Letters</i> , 2011 , 99, 142102	3.4	18
88	Spectroscopic investigation of the deeply buried Cu(In,Ga)(S,Se) ₂ /Mo interface in thin-film solar cells. <i>Journal of Chemical Physics</i> , 2006 , 124, 74705	3.9	18
87	Improving performance by Na doping of a buffer layer—chemical and electronic structure of the In _x S _y :Na/CuIn(S,Se) ₂ thin-film solar cell interface. <i>Progress in Photovoltaics: Research and Applications</i> , 2018 , 26, 359-366	6.8	17
86	Investigation of the Ionic Hydration in Aqueous Salt Solutions by Soft X-ray Emission Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 7687-95	3.4	17
85	Impact of environmental conditions on the chemical surface properties of Cu(In,Ga)(S,Se) ₂ thin-film solar cell absorbers. <i>Journal of Applied Physics</i> , 2014 , 115, 183707	2.5	16
84	Cu _{2-x} S Surface Phases and Their Impact on the Electronic Structure of CuInS ₂ Thin Films—A Hidden Parameter in Solar Cell Optimization. <i>Advanced Energy Materials</i> , 2013 , 3, 777-781	21.8	16
83	Cd ²⁺ /NH ₃ treatment-induced formation of a CdSe surface layer on CuGaSe ₂ thin-film solar cell absorbers. <i>Applied Physics Letters</i> , 2005 , 86, 222107	3.4	16

82	Molybdenum Disulfide Catalytic Coatings via Atomic Layer Deposition for Solar Hydrogen Production from Copper Gallium Diselenide Photocathodes. <i>ACS Applied Energy Materials</i> , 2019 , 2, 1060-1066	6.1	15
81	KF post-deposition treatment of industrial Cu(In, Ga)(S, Se) ₂ thin-film surfaces: Modifying the chemical and electronic structure. <i>Applied Physics Letters</i> , 2017 , 111, 071601	3.4	15
80	Structural properties and x-ray photoelectron spectroscopic study of SnO ₂ nanoparticles. <i>Materials Letters</i> , 2012 , 85, 168-170	3.3	15
79	Analysis of Zinc Compound Buffer Layers in Cu(In, Ga)(S, Se) ₂ Thin Film Solar Cells by Synchrotron-Based Soft X-Ray Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 763, 451		15
78	Cd ²⁺ /NH ₃ treatment of Cu(In,Ga)(S,Se) ₂ thin-film solar cell absorbers: a model for the performance-enhancing processes in the partial electrolyte. <i>Progress in Photovoltaics: Research and Applications</i> , 2005 , 13, 571-577	6.8	15
77	Site-specific electronic structure of imidazole and imidazolium in aqueous solutions. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 8302-8310	3.6	14
76	Cu ₂ ZnSnS ₄ thin-film solar cell absorbers illuminated by soft x-rays. <i>Journal of Materials Research</i> , 2012 , 27, 1097-1104	2.5	14
75	Impact of air exposure on the chemical and electronic structure of ZnO:Zn ₃ N ₂ thin films. <i>Applied Physics Letters</i> , 2009 , 94, 012110	3.4	14
74	Isotope Effects in the Resonant Inelastic Soft X-ray Scattering Maps of Gas-Phase Methanol. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 2260-7	2.8	14
73	Surface and Interface Properties in Thin-Film Solar Cells: Using Soft X-rays and Electrons to Unravel the Electronic and Chemical Structure. <i>Advanced Materials</i> , 2019 , 31, e1806660	2.4	14
72	X-ray Emission Spectroscopy of Proteinogenic Amino Acids at All Relevant Absorption Edges. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 6549-6556	3.4	13
71	The Be K-edge in beryllium oxide and chalcogenides: soft x-ray absorption spectra from first-principles theory and experiment. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 315501	1.8	13
70	Intermixing and chemical structure at the interface between n-GaN and V-based contacts. <i>Applied Physics Letters</i> , 2008 , 93, 172106	3.4	13
69	The valence electronic structure of zinc oxide powders as determined by X-ray emission spectroscopy: variation of electronic structure with particle size. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2004 , 134, 183-189	1.7	13
68	Annealing-Induced Effects on the Chemical Structure of the In ₂ S ₃ /CuIn(S,Se) ₂ Thin-Film Solar Cell Interface. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 10412-10416	3.8	12
67	Chemical insights into the Cd ²⁺ /NH ₃ treatment—An approach to explain the formation of Cd-compounds on Cu(In,Ga)(S,Se) ₂ absorbers. <i>Solar Energy Materials and Solar Cells</i> , 2006 , 90, 3151-3157	6.4	12
66	Energy level alignment at zinc blende Cd(Mn)Se/ZnTe/InAs(100) interfaces. <i>Applied Physics Letters</i> , 2002 , 81, 3813-3815	3.4	12
65	Semitransparent SbS thin film solar cells by ultrasonic spray pyrolysis for use in solar windows. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 2396-2409	3	12

64	Valence Electronic Structure of Li ₂ O ₂ , Li ₂ O, Li ₂ CO ₃ , and LiOH Probed by Soft X-ray Emission Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 5460-5466	3.8	11
63	Setup for in situ investigation of gases and gas/solid interfaces by soft x-ray emission and absorption spectroscopy. <i>Review of Scientific Instruments</i> , 2014 , 85, 015119	1.7	11
62	Studying the local chemical environment of sulfur atoms at buried interfaces in CdS/ZnSe superlattices. <i>Applied Physics Letters</i> , 2003 , 83, 2360-2362	3.4	11
61	A closer look at initial CdS growth on high-efficiency Cu(In, Ga)Se ₂ absorbers using surface-sensitive methods 2016 ,		11
60	Rubidium Fluoride Post-Deposition Treatment: Impact on the Chemical Structure of the Cu(In,Ga)Se Surface and CdS/Cu(In,Ga)Se Interface in Thin-Film Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 37602-37608	9.5	11
59	Electron-hole correlation effects in core-level spectroscopy probed by the resonant inelastic soft x-ray scattering map of C60. <i>Journal of Chemical Physics</i> , 2011 , 135, 104705	3.9	10
58	Direct determination of the band alignment at the (Zn,Mg)O/CISSe interface. <i>Applied Physics Letters</i> , 2011 , 98, 142107	3.4	10
57	Intermixing at the In _x Sy/Cu ₂ ZnSn(S,Se) ₄ Heterojunction and Its Impact on the Chemical and Electronic Interface Structure. <i>ACS Applied Energy Materials</i> , 2019 , 2, 4098-4104	6.1	9
56	Non-equivalent carbon atoms in the resonant inelastic soft X-ray scattering map of cysteine. <i>Journal of Chemical Physics</i> , 2013 , 138, 034306	3.9	9
55	Impact of solid-phase crystallization of amorphous silicon on the chemical structure of the buried Si/ZnO thin film solar cell interface. <i>Applied Physics Letters</i> , 2010 , 97, 072105	3.4	9
54	Modifications of the CZTSe/Mo back-contact interface by plasma treatments.. <i>RSC Advances</i> , 2019 , 9, 26850-26855	3.7	8
53	Band-Gap Widening at the Cu(In,Ga)(S,Se) ₂ Surface: A Novel Determination Approach Using Reflection Electron Energy Loss Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 21101-5	9.5	8
52	Perovskite Solar Cells: Record Open-Circuit Voltage Wide-Bandgap Perovskite Solar Cells Utilizing 2D/3D Perovskite Heterostructure (Adv. Energy Mater. 21/2019). <i>Advanced Energy Materials</i> , 2019 , 9, 1970079	21.8	7
51	Local electronic structure of the peptide bond probed by resonant inelastic soft X-ray scattering. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 13207-13214	3.6	7
50	Soft X-ray and electron spectroscopy to determine the electronic structure of materials for photoelectrochemical hydrogen production. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013 , 190, 106-112	1.7	7
49	Chemical structure of vanadium-based contact formation on n-AlN. <i>Journal of Applied Physics</i> , 2010 , 108, 024906	2.5	7
48	Influence of As passivation on the electronic level alignment at BeTe/Si(111) interfaces. <i>Physical Review B</i> , 2003 , 67,	3.3	7
47	Pyridine as a Resonantly Addressable Group to Study Electron-Transfer Dynamics in Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 12534-12544	3.8	7

46	Soft X-rays shedding light on thin-film solar cell surfaces and interfaces. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013 , 190, 47-53	1.7	6
45	Chemical structure of the (Zn _{1-x} Mgx)O/CuIn(S,Se) ₂ interface in thin film solar cells. <i>Applied Physics Letters</i> , 2009 , 95, 122104	3.4	6
44	Observation of Double Excitations in the Resonant Inelastic X-ray Scattering of Nitric Oxide. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 7476-7482	6.4	6
43	InO:H-Based Hole-Transport-Layer-Free Tin/Lead Perovskite Solar Cells for Efficient Four-Terminal All-Perovskite Tandem Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 46488-46498	9.5	6
42	The effect of NaCl on room-temperature-processed indium oxide nanoparticle thin films for printed electronics. <i>Applied Surface Science</i> , 2017 , 396, 912-919	6.7	5
41	Chemical structure of buried interfaces in CdTe thin film solar cells 2010 ,		5
40	Spectroscopic analysis of CIGS ₂ /CdS thin film solar cell heterojunctions on stainless steel foil. <i>Journal of Physics and Chemistry of Solids</i> , 2005 , 66, 1872-1875	3.9	5
39	Electron Transfer Dynamics and Structural Effects in Benzonitrile Monolayers with Tuned Dipole Moments by Differently Positioned Fluorine Atoms. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 39859-39869	9.5	5
38	Electrolyte Stability and Discharge Products of an Ionic-Liquid-Based LiO ₂ Battery Revealed by Soft X-Ray Emission Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 30827-30832	3.8	5
37	Microstructure of vanadium-based contacts on n-type GaN. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 105401	3	4
36	X-ray photoelectron spectroscopy study of the chemical interaction at the Pd/SiC interface. <i>Journal of Applied Physics</i> , 2010 , 108, 093702	2.5	4
35	Dynamic Effects and Hydrogen Bonding in Mixed-Halide Perovskite Solar Cell Absorbers. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 3885-3890	6.4	4
34	Soft X-ray Spectroscopy of a Complex Heterojunction in High-Efficiency Thin-Film Photovoltaics: Intermixing and Zn Speciation at the Zn(O,S)/Cu(In,Ga)Se Interface. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 33256-33263	9.5	3
33	Impact of annealing on the chemical structure and morphology of the thin-film CdTe/ZnO interface. <i>Journal of Applied Physics</i> , 2014 , 116, 024312	2.5	3
32	Synthesis and characterization of conductive polyimide/carbon composites with Pt surface deposits. <i>Synthetic Metals</i> , 2011 , 161, 2368-2377	3.6	3
31	Oxidation of titanium-decorated single-walled carbon nanotubes and subsequent reduction by lithium. <i>Journal of the American Chemical Society</i> , 2010 , 132, 5789-92	16.4	3
30	Vibronic structure in resonant Auger Raman spectroscopy of large π -conjugated molecules. <i>Chemical Physics Letters</i> , 2011 , 510, 82-86	2.5	3
29	Comparison of Band Alignments at Various CdS/Cu(In,Ga)(S,Se) ₂ Inter-Faces in Thin Film Solar Cells 2006 ,		3

28	The Mechanism of J-V Roll-Over In CdS/CdTe Devices. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1012, 1		3
27	Impact of -Butylammonium Bromide on the Chemical and Electronic Structure of Double-Cation Perovskite Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2021 ,	9.5	3
26	X-SPEC: a 70 eV to 15 keV undulator beamline for X-ray and electron spectroscopies. <i>Journal of Synchrotron Radiation</i> , 2021 , 28, 609-617	2.4	3
25	A New Look at the Electronic Structure of Transparent Conductive Oxides—A Case Study of the Interface between Zinc Magnesium Oxide and Cadmium Telluride. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600418	4.6	2
24	The heavily intermixed In ₂ S ₃ /Cu(In, Ga)Se ₂ interface as Revealed by photoelectron and soft x-ray emission spectroscopy 2013 ,		2
23	Surface Off-Stoichiometry of CuInS ₂ Thin-Film Solar Cell Absorbers. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 828-832	3.7	2
22	Photoemission study of CdTe surfaces after low-energy ion treatments 2012 ,		2
21	Reply to Comment on Using Photoelectron Spectroscopy and Quantum Mechanics to Determine d-Band Energies of Metals for Catalytic Applications <i>Journal of Physical Chemistry C</i> , 2013 , 117, 6916-6917	3.8	2
20	Electronic and chemical properties of non-vacuum deposited chalcopyrite solar cells 2011 ,		2
19	Migration and oxidation of sulfur at the back contact in CdTe cells 2009 ,		2
18	Steep sulfur gradient in CZTSSe solar cells by HS-assisted rapid surface sulfurization.. <i>RSC Advances</i> , 2021 , 11, 12687-12695	3.7	2
17	Tandem Solar Cells: Vacuum-Assisted Growth of Low-Bandgap Thin Films (FA0.8MA0.2Sn0.5Pb0.5I3) for All-Perovskite Tandem Solar Cells (Adv. Energy Mater. 5/2020). <i>Advanced Energy Materials</i> , 2020 , 10, 2070021	21.8	1
16	Hybrid chemical bath deposition-CdS/sputter-Zn(O,S) alternative buffer for Cu ₂ ZnSn(S,Se) ₄ based solar cells. <i>Journal of Applied Physics</i> , 2020 , 127, 165301	2.5	1
15	Soft X-ray and Electron Spectroscopy: A Unique Tool Chest to Characterize the Chemical and Electronic Properties of Surfaces and Interfaces 2016 , 501-522		1
14	Variations in the Chemical and Electronic Impact of Post-Deposition Treatments on Cu(In,Ga)(S,Se) ₂ Absorbers. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8641-8648	6.1	1
13	Lateral inhomogeneity of the Mg/(Zn+Mg) composition at the (Zn,Mg)O/CuIn(S,Se) ₂ thin-film solar cell interface revealed by photoemission electron microscopy. <i>Journal of Applied Physics</i> , 2013 , 113, 193709	2.5	1
12	Soft X-Ray and Electron Spectroscopy: A Unique Tool Chest to Characterize the Chemical and Electronic Properties of Surfaces and Interfaces 2011 , 387-409		1
11	Sulfurization as a promising surface passivation approach for both n- and p-type Si 2020 ,		1

10	Impact of substrate temperature during NaF and KF post-deposition treatments on chemical and optoelectronic properties of alkali-free Cu(In,Ga)Se ₂ thin film solar cell absorbers. <i>Thin Solid Films</i> , 2021 , 739, 138979	2.2	1
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