

Clemens Heske

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

156
papers

5,533
citations

39
h-index

69
g-index

170
ext. papers

5,994
ext. citations

4.5
avg, IF

4.86
L-index

#	Paper	IF	Citations
156	Coupling Methylammonium and Formamidinium Cations with Halide Anions: Hybrid Orbitals, Hydrogen Bonding, and the Role of Dynamics. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 25917-25926	3.8	0
155	Using the inelastic background in hard x-ray photoelectron spectroscopy for a depth-resolved analysis of the CdS/Cu(In,Ga)Se ₂ interface. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 063216	2.9	0
154	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
153	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
152	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
151	Chemical Structure of a Carbon-Rich Layer at the Wet-Chemical Processed Cu ₂ ZnSn(S,Se) ₄ /Mo Interface. <i>IEEE Journal of Photovoltaics</i> , 2021 , 11, 658-663	3.7	1
150	Sulfate Speciation Analysis Using Soft X-ray Emission Spectroscopy. <i>Analytical Chemistry</i> , 2021 , 93, 8300-8308	3.8	1
149	Steep sulfur gradient in CZTSSe solar cells by HS-assisted rapid surface sulfurization.. <i>RSC Advances</i> , 2021 , 11, 12687-12695	3.7	2
148	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
147	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
146	Sulfurization as a promising surface passivation approach for both n- and p-type Si 2020 ,		1
145	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
144	Impact of UV-induced ozone and low-energy Ar ⁺ -ion cleaning on the chemical structure of Cu(In,Ga)(S,Se) ₂ absorber surfaces. <i>Journal of Applied Physics</i> , 2020 , 128, 155301	2.5	1
143	Modifications of the CZTSe/Mo back-contact interface by plasma treatments.. <i>RSC Advances</i> , 2019 , 9, 26850-26855	3.7	8
142	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
141	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
140	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

139	Cadmium Free Cu ₂ ZnSnS ₄ Solar Cells with 9.7% Efficiency. <i>Advanced Energy Materials</i> , 2019 , 9, 1900439	21.8	42
138	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
137	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	24	14
136	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
135	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
134	Site-specific electronic structure of imidazole and imidazolium in aqueous solutions. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 8302-8310	3.6	14
133	Improving performance by Na doping of a buffer layer—chemical and electronic structure of the In _x Sy: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
132	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
131	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
130	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
129	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
128	ZnBe _{1-x} Te _x 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
127	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
126	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
125	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
124	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
123	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
122	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

121	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
120	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
119	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
118	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	9.5	19
117	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
116	A closer look at initial CdS growth on high-efficiency Cu(In, Ga)Se ₂ absorbers using surface-sensitive methods 2016 ,		11
115	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
114	Site- and Symmetry-Resolved Resonant X-ray Emission Study of a Highly Ordered PTCDA Thin Film. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 8607-8615	3.8	1
113	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
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	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
110	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
109	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
108	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
107	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
106	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
105	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
104	"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

103	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
102	Controlling the electron-deficiency of self-assembling pyrazine-acenes: a collaborative experimental and theoretical investigation. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 5967-74	3.6	16
101	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
100	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
99	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
98	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
97	Surface Off-Stoichiometry of CuInS ₂ Thin-Film Solar Cell Absorbers. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 828-832	3.7	2
96	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
95	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
94	Finding Correlations of the Oxygen Reduction Reaction Activity of Transition Metal Catalysts with Parameters Obtained from Quantum Mechanics. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 26598-26607	3.8	83
93	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
92	Status of the development of superconducting undulators at ANKA. <i>Journal of Physics: Conference Series</i> , 2013 , 425, 032008	0.3	1
91	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
90	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
89	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
88	Photoemission study of CdTe surfaces after low-energy ion treatments 2012 ,		2
87	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
86	Microstructure of vanadium-based contacts on n-type GaN. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 105401	3	4

85	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
84	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
83	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
82	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
81	Identification of Impurity Phases in Cu ₂ ZnSnS ₄ Thin-film Solar Cell Absorber Material by Soft X-ray Absorption Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1324, 91		
80	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
79	Electronic and chemical properties of non-vacuum deposited chalcopyrite solar cells 2011 ,		2
78	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
77	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
76	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
75	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
74	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
73	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
72	Chemical structure of vanadium-based contact formation on n-AlN. <i>Journal of Applied Physics</i> , 2010 , 108, 024906	2.5	7
71	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
70	Improved current collection in WO ₃ :Mo/WO ₃ bilayer photoelectrodes. <i>Journal of Materials Research</i> , 2010 , 25, 45-51	2.5	29
69	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
68	Organogels from functionalized T-shaped pi-conjugated bisphenazines. <i>Langmuir</i> , 2010 , 26, 13630-6	4	21

67	Photon Science at the ALS for Sustainable Energy. <i>Synchrotron Radiation News</i> , 2010 , 23, 8-15	0.6	
66	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
65	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
64	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
63	Effects of postdeposition treatments on surfaces of CdTe/CdS solar cells. <i>Applied Physics Letters</i> , 2010 , 97, 172109	3.4	18
62	Accelerating materials development for photoelectrochemical hydrogen production: Standards for methods, definitions, and reporting protocols. <i>Journal of Materials Research</i> , 2010 , 25, 3-16	2.5	893
61	Chemical structure of buried interfaces in CdTe thin film solar cells 2010 ,		5
60	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
59	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
58	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
57	Bimetallic Palladium-Base Metal Nanoparticle Oxygen Reduction Electrocatalysts. <i>ECS Transactions</i> , 2009 , 16, 109-119	1	9
56	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
55	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
54	Migration and oxidation of sulfur at the back contact in CdTe cells 2009 ,		2
53	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
52	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
51	Depth-resolved band gap in Cu(In,Ga)(S,Se) ₂ thin films. <i>Applied Physics Letters</i> , 2008 , 93, 244103	3.4	65
50	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

49	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
48	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
47	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
46	Fuchs et al. Reply:. <i>Physical Review Letters</i> , 2008 , 100,	7-4	47
45	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
44	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
43	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
42	Angle-resolved photoemission on ZnSe(001): determination of conduction band quasiparticle shifts. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 3204-3209		1
41	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
40	The Mechanism of J-V Roll-Over in CdS/CdTe Devices. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1012, 1		3
39	Comparison of Band Alignments at Various CdS/Cu(In,Ga)(S,Se) ₂ Inter-Faces in Thin Film Solar Cells 2006 ,		3
38	Resonant inelastic soft x-ray scattering of Be chalcogenides. <i>Physical Review B</i> , 2006 , 73,	3-3	29
37	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
36	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
35	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
34	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
33	Surface chemistry of ultrathin films of histidine on gold as probed by high-resolution synchrotron photoemission. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 884-91	3-4	60
32	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

31	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
30	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
29	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
28	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
27	Ultrafast core-hole-induced dynamics in water probed by x-ray emission spectroscopy. <i>Physical Review Letters</i> , 2005 , 94, 227401	7.4	111
26	Spectroscopic investigation of buried interfaces and liquids with soft X-rays. <i>Applied Physics A: Materials Science and Processing</i> , 2004 , 78, 829-835	2.6	10
25	Ethylene on Cu(110) and Ni(110): electronic structure and bonding derived from X-ray spectroscopy and theory. <i>Surface Science</i> , 2004 , 559, 85-99	1.8	29
24	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
23	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
22	Bonding and structure of glycine on ordered Al ₂ O ₃ film surfaces. <i>Langmuir</i> , 2004 , 20, 10551-9	4	47
21	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
20	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
19	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
18	Formation of the ZnSe/(Te)/GaAs(100) heterojunction. <i>Surface Science</i> , 2003 , 531, 77-85	1.8	32
17	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
16	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
15	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
14	Spectroscopic probing of local hydrogen-bonding structures in liquid water. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, L213-L219	1.8	243

13	X-Ray Emission Spectroscopy of Cu(In,Ga)(S,Se) ₂ -Based Thin Film Solar Cells: Electronic Structure, Surface Oxidation, and Buried Interfaces. <i>Physica Status Solidi A</i> , 2001 , 187, 13-24		30
12	Reduction of the ZnSe/GaAs(100) valence band offset by a Te interlayer. <i>Applied Physics Letters</i> , 2001 , 78, 1867-1869	3-4	15
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3	Influence of Na and H ₂ O on the surface properties of Cu(In,Ga)Se ₂ thin films. <i>Journal of Applied Physics</i> , 1997 , 82, 2411-2420	2.5	40
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