HÃ¥kan Rensmo

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Maximizing and stabilizing luminescence from halide perovskites with potassium passivation. Nature, 2018, 555, 497-501.	27.8	1,336
2	Li+Ion Insertion in TiO2(Anatase). 2. Voltammetry on Nanoporous Films. Journal of Physical Chemistry B, 1997, 101, 7717-7722.	2.6	1,283
3	Bismuth Based Hybrid Perovskites A₃Bi₂I₉ (A: Methylammonium or) Tj ETQq1 1 0.784314 rgBT /	21.0	1,017
4	Nickelâ€"vanadium monolayer double hydroxide for efficient electrochemical water oxidation. Nature Communications, 2016, 7, 11981.	12.8	808
5	Unreacted PbI₂ as a Double-Edged Sword for Enhancing the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 10331-10343.	13.7	696
6	Nanosilicon Electrodes for Lithium-Ion Batteries: Interfacial Mechanisms Studied by Hard and Soft X-ray Photoelectron Spectroscopy. Chemistry of Materials, 2012, 24, 1107-1115.	6.7	445
7	Electronic Structure of TiO₂/CH₃NH₃PbI₃ Perovskite Solar Cell Interfaces. Journal of Physical Chemistry Letters, 2014, 5, 648-653.	4.6	432
8	Chemical and Electronic Structure Characterization of Lead Halide Perovskites and Stability Behavior under Different Exposuresâ€"A Photoelectron Spectroscopy Investigation. Chemistry of Materials, 2015, 27, 1720-1731.	6.7	388
9	Electron Transport in the Nanostructured TiO2â^'Electrolyte System Studied with Time-Resolved Photocurrents. Journal of Physical Chemistry B, 1997, 101, 2514-2518.	2.6	303
10	Origin of the Substitution Mechanism for the Binding of Organic Ligands on the Surface of CsPbBr₃ Perovskite Nanocubes. Journal of Physical Chemistry Letters, 2017, 8, 4988-4994.	4.6	292
11	Li+Ion Insertion in TiO2(Anatase). 1. Chronoamperometry on CVD Films and Nanoporous Films. Journal of Physical Chemistry B, 1997, 101, 7710-7716.	2.6	257
12	Role of the LiPF₆ Salt for the Long-Term Stability of Silicon Electrodes in Li-Ion Batteries â€" A Photoelectron Spectroscopy Study. Chemistry of Materials, 2013, 25, 394-404.	6.7	241
13	Rhodaninedyes for dye-sensitized solar cellsâ€‰:â€‰ spectroscopy, energy levels and photovoltaic performance. Physical Chemistry Chemical Physics, 2009, 11, 133-141.	2.8	178
14	Chemical Distribution of Multiple Cation (Rb⁺, Cs⁺, MA⁺, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 29, 3589-3596.	6.7	175
15	An effective approach of vapour assisted morphological tailoring for reducing metal defect sites in lead-free, (CH3NH3)3Bi2I9 bismuth-based perovskite solar cells for improved performance and long-term stability. Nano Energy, 2018, 49, 614-624.	16.0	169
16	Inorganic CsPbI₃ Perovskite Coating on PbS Quantum Dot for Highly Efficient and Stable Infrared Light Converting Solar Cells. Advanced Energy Materials, 2018, 8, 1702049.	19.5	143
17	Energy Level Shifts in Spiro-OMeTAD Molecular Thin Films When Adding Li-TFSI. Journal of Physical Chemistry C, 2012, 116, 26300-26305.	3.1	134
18	Electronic Structure of CH₃NH₃PbX₃ Perovskites: Dependence on the Halide Moiety. Journal of Physical Chemistry C, 2015, 119, 1818-1825.	3.1	127

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19	Potassium- and Rubidium-Passivated Alloyed Perovskite Films: Optoelectronic Properties and Moisture Stability. ACS Energy Letters, 2018, 3, 2671-2678.	17.4	126
20	Highly Efficient Flexible Quantum Dot Solar Cells with Improved Electron Extraction Using MgZnO Nanocrystals. ACS Nano, 2017, 11, 8478-8487.	14.6	117
21	Electron Transport Properties in Dye-Sensitized Nanoporousâ^’Nanocrystalline TiO2 Films. The Journal of Physical Chemistry, 1996, 100, 3084-3088.	2.9	111
22	PES Studies of Ru(dcbpyH2)2(NCS)2Adsorption on Nanostructured ZnO for Solar Cell Applications. Journal of Physical Chemistry B, 2002, 106, 10102-10107.	2.6	106
23	Surface characterization and stability phenomena in Li2FeSiO4studied by PES/XPS. Journal of Materials Chemistry, 2006, 16, 3483-3488.	6.7	106
24	Dedoping of Lead Halide Perovskites Incorporating Monovalent Cations. ACS Nano, 2018, 12, 7301-7311.	14.6	101
25	Investigation of the Electrode/Electrolyte Interface of Fe₂O₃ Composite Electrodes: Li vs Na Batteries. Chemistry of Materials, 2014, 26, 5028-5041.	6.7	99
26	Vapor phase conversion of PbI₂to CH₃NH₃PbI₃: spectroscopic evidence for formation of an intermediate phase. Journal of Materials Chemistry A, 2016, 4, 2630-2642.	10.3	98
27	Valence Level Character in a Mixed Perovskite Material and Determination of the Valence Band Maximum from Photoelectron Spectroscopy: Variation with Photon Energy. Journal of Physical Chemistry C, 2017, 121, 26655-26666.	3.1	98
28	Chemical engineering of methylammonium lead iodide/bromide perovskites: tuning of opto-electronic properties and photovoltaic performance. Journal of Materials Chemistry A, 2015, 3, 21760-21771.	10.3	96
29	Degradation Mechanism of Silver Metal Deposited on Lead Halide Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 7212-7221.	8.0	85
30	Linker Unit Modification of Triphenylamine-Based Organic Dyes for Efficient Cobalt Mediated Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 21029-21036.	3.1	79
31	Re-Investigation of Cobalt Porphyrin for Electrochemical Water Oxidation on FTO Surface: Formation of CoOx as Active Species. ACS Catalysis, 2017, 7, 1143-1149.	11.2	74
32	Extending the Compositional Space of Mixed Lead Halide Perovskites by Cs, Rb, K, and Na Doping. Journal of Physical Chemistry C, 2018, 122, 13548-13557.	3.1	70
33	Promoting the Water Oxidation Catalysis by Synergistic Interactions between Ni(OH)₂ and Carbon Nanotubes. Advanced Energy Materials, 2016, 6, 1600516.	19.5	68
34	Insights into the Mechanism of a Covalently Linked Organic Dyeâ€"Cobaloxime Catalyst System for Dyeâ€Sensitized Solar Fuel Devices. ChemSusChem, 2017, 10, 2480-2495.	6.8	65
35	Partially Reversible Photoinduced Chemical Changes in a Mixed-Ion Perovskite Material for Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 34970-34978.	8.0	65
36	Passivation Layer and Cathodic Redox Reactions in Sodiumâ€Ion Batteries Probed by HAXPES. ChemSusChem, 2016, 9, 97-108.	6.8	64

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37	Defective and â€œ<i>c</i>-Disorderedâ€•<i>Hortensia</i>-like Layered MnO_{<i>x</i>} as an Efficient Electrocatalyst for Water Oxidation at Neutral pH. ACS Catalysis, 2017, 7, 6311-6322.	11.2	62
38	Electronic and Molecular Surface Structure of a Polyeneâˆ’Diphenylaniline Dye Adsorbed from Solution onto Nanoporous TiO2. Journal of Physical Chemistry C, 2007, 111, 8580-8586.	3.1	61
39	Surface Molecular Quantification and Photoelectrochemical Characterization of Mixed Organic Dye and Coadsorbent Layers on TiO₂ for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 11903-11910.	3.1	59
40	Enhancement of p-Type Dye-Sensitized Solar Cell Performance by Supramolecular Assembly of Electron Donor and Acceptor. Scientific Reports, 2014, 4, 4282.	3.3	59
41	Characterization of the Interface Properties and Processes in Solid State Dye-Sensitized Solar Cells Employing a Perylene Sensitizer. Journal of Physical Chemistry C, 2011, 115, 4345-4358.	3.1	58
42	Chemical and Physical Reduction of High Valence Ni States in Mesoporous NiO Film for Solar Cell Application. ACS Applied Materials & Interfaces, 2017, 9, 33470-33477.	8.0	58
43	Electronic and molecular structures of organic dye/TiO2 interfaces for solar cell applications: a core level photoelectron spectroscopy study. Physical Chemistry Chemical Physics, 2010, 12, 1507.	2.8	56
44	Determination of the electronic density of states at a nanostructured TiO2/Ru-dye/electrolyte interface by means of photoelectron spectroscopy. Chemical Physics, 2002, 285, 157-165.	1.9	55
45	Hard x-ray photoelectron spectroscopy: a snapshot of the state-of-the-art in 2020. Journal of Physics Condensed Matter, 2021, 33, 233001.	1.8	55
46	Electron Spectroscopic Studies of Bis-(2,2â€˜-bipyridine)-(4,4â€˜-dicarboxy-2,2â€˜-bipyridine)-ruthenium(II) and Bis-(2,2â€˜-bipyridine)-(4,4â€˜-dicarboxy-2,2â€˜-bipyridine)-osmium(II) Adsorbed on Nanostructured TiO2and ZnO Surfaces. Journal of Physical Chemistry B, 2002, 106, 10108-10113.	2.6	50
47	Highly Stabilized Quantum Dot Ink for Efficient Infrared Light Absorbing Solar Cells. Advanced Energy Materials, 2019, 9, 1902809.	19.5	50
48	Photocurrent Losses in Nanocrystalline/Nanoporous TiO2 Electrodes Due to Electrochemically Active Species in the Electrolyte. Journal of the Electrochemical Society, 1996, 143, 3173-3178.	2.9	47
49	Cesium Bismuth Iodide Solar Cells from Systematic Molar Ratio Variation of CsI and BiI₃. Inorganic Chemistry, 2019, 58, 12040-12052.	4.0	45
50	Spinâˆ’Orbit Coupling and Metalâˆ’Ligand Interactions in Fe(II), Ru(II), and Os(II) Complexes. Journal of Physical Chemistry C, 2010, 114, 10314-10322.	3.1	44
51	Electronic structure of electrochemically Li-inserted TiO2 studied with synchrotron radiation electron spectroscopies. Journal of Chemical Physics, 2003, 118, 5607-5612.	3.0	42
52	A versatile photoelectron spectrometer for pressures up to 30 mbar. Review of Scientific Instruments, 2014, 85, 075119.	1.3	41
53	Probing a battery electrolyte drop with ambient pressure photoelectron spectroscopy. Nature Communications, 2019, 10, 3080.	12.8	41
54	Preventing Dye Aggregation on ZnO by Adding Water in the Dye-Sensitization Process. Journal of Physical Chemistry C, 2011, 115, 19274-19279.	3.1	40

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55	Photoelectron Spectroscopy Studies of Ru(dcbpyH2)2(NCS)2/CuI and Ru(dcbpyH2)2(NCS)2/CuSCN Interfaces for Solar Cell Applications. Journal of Physical Chemistry B, 2004, 108, 11604-11610.	2.6	37
56	Impact of synthetic routes on the structural and physical properties of butyl-1,4-diammonium lead iodide semiconductors. Journal of Materials Chemistry A, 2017, 5, 11730-11738.	10.3	37
57	Photovoltaic and Interfacial Properties of Heterojunctions Containing Dye-Sensitized Dense TiO2and Tri-arylamine Derivatives. Chemistry of Materials, 2007, 19, 2071-2078.	6.7	36
58	Versatile high-repetition-rate phase-locked chopper system for fast timing experiments in the vacuum ultraviolet and x-ray spectral region. Review of Scientific Instruments, 2012, 83, 013115.	1.3	34
59	A high pressure x-ray photoelectron spectroscopy experimental method for characterization of solid-liquid interfaces demonstrated with a Li-ion battery system. Review of Scientific Instruments, 2015, 86, 044101.	1.3	34
60	Probing and Controlling Surface Passivation of PbS Quantum Dot Solid for Improved Performance of Infrared Absorbing Solar Cells. Chemistry of Materials, 2019, 31, 4081-4091.	6.7	34
61	X-ray stability and degradation mechanism of lead halide perovskites and lead halides. Physical Chemistry Chemical Physics, 2021, 23, 12479-12489.	2.8	33
62	Influence of Water on the Electronic and Molecular Surface Structures of Ru-Dyes at Nanostructured TiO₂. Journal of Physical Chemistry C, 2011, 115, 11996-12004.	3.1	31
63	Investigating the Interfacial Chemistry of Organic Electrodes in Li- and Na-Ion Batteries. Chemistry of Materials, 2016, 28, 8742-8751.	6.7	30
64	Tuning the Bandgap in Silver Bismuth Iodide Materials by Partly Substituting Bismuth with Antimony for Improved Solar Cell Performance. ACS Applied Energy Materials, 2020, 3, 7372-7382.	5.1	30
65	Preparation of mixed-ion and inorganic perovskite films using water and isopropanol as solvents for solar cell applications. Sustainable Energy and Fuels, 2018, 2, 606-615.	4.9	29
66	Using a molten organic conducting material to infiltrate a nanoporous semiconductor film and its use in solid-state dye-sensitized solar cells. Synthetic Metals, 2009, 159, 166-170.	3.9	28
67	Lowâ€Temperature Solution Processing of Mesoporous Metalâ€"Sulfide Semiconductors as Lightâ€Harvesting Photoanodes. Angewandte Chemie - International Edition, 2013, 52, 12047-12051.	13.8	28
68	Geometrical and energetical structural changes in organic dyes for dye-sensitized solar cells probed using photoelectron spectroscopy and DFT. Physical Chemistry Chemical Physics, 2016, 18, 252-260.	2.8	28
69	Elucidating and Mitigating Degradation Processes in Perovskite Lightâ€Emitting Diodes. Advanced Energy Materials, 2020, 10, 2002676.	19.5	28
70	Simple Method for Efficient Slot-Die Coating of MAPbI₃ Perovskite Thin Films in Ambient Air Conditions. ACS Applied Energy Materials, 2020, 3, 4331-4337.	5.1	28
71	Structure and Electronic Effects from Mn and Nb Co-doping for Low Band Gap BaTiO₃ Ferroelectrics. Journal of Physical Chemistry C, 2021, 125, 14910-14923.	3.1	28
72	Energy alignment and surface dipoles of rylenedyes adsorbed to TiO2nanoparticles. Physical Chemistry Chemical Physics, 2011, 13, 14767.	2.8	26

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73	Energy level alignment in TiO2/dipole-molecule/P3HT interfaces. Chemical Physics Letters, 2011, 515, 146-150.	2.6	26
74	Molecularâ€Scale Interface Engineering of Nanocrystalline Titania by Coâ€adsorbents for Solar Energy Conversion. ChemSusChem, 2012, 5, 181-187.	6.8	26
75	Effect of halide ratio and Cs+ addition on the photochemical stability of lead halide perovskites. Journal of Materials Chemistry A, 2018, 6, 22134-22144.	10.3	26
76	A study of the pressure profiles near the first pumping aperture in a high pressure photoelectron spectrometer. Journal of Electron Spectroscopy and Related Phenomena, 2015, 205, 57-65.	1.7	24
77	Bandgap Tuning of Silver Bismuth Iodide via Controllable Bromide Substitution for Improved Photovoltaic Performance. ACS Applied Energy Materials, 2019, 2, 5356-5362.	5.1	23
78	A Cost-Effective and High-Performance Core-Shell-Nanorod-Based ZnO/Î±-Fe₂O₃//ZnO/C Asymmetric Supercapacitor. Journal of the Electrochemical Society, 2017, 164, A987-A994.	2.9	20
79	Atomic and Electronic Structures of Interfaces in Dyeâ€Sensitized, Nanostructured Solar Cells. ChemPhysChem, 2014, 15, 1006-1017.	2.1	19
80	The electronic structure and band interface of cesium bismuth iodide on a titania heterostructure using hard X-ray spectroscopy. Journal of Materials Chemistry A, 2018, 6, 9498-9505.	10.3	19
81	Excess Lithium in Transition Metal Layers of Epitaxially Grown Thin Film Cathodes of Li₂MnO₃ Leads to Rapid Loss of Covalency during First Battery Cycle. Journal of Physical Chemistry C, 2019, 123, 28519-28526.	3.1	19
82	SnO_{<i>x</i>} Atomic Layer Deposition on Bare Perovskiteâ€"An Investigation of Initial Growth Dynamics, Interface Chemistry, and Solar Cell Performance. ACS Applied Energy Materials, 2021, 4, 510-522.	5.1	18
83	Aging of Electrode/Electrolyte Interfaces in LiFePO₄/Graphite Cells Cycled with and without PMS Additive. Journal of Physical Chemistry C, 2014, 118, 12649-12660.	3.1	17
84	Self-assembly of alkane capped silver and silica nanoparticles. Journal of Materials Chemistry, 2002, 12, 2762-2768.	6.7	15
85	Triarylamine on Nanocrystalline TiO2 Studied in Its Reduced and Oxidized State by Photoelectron Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 7182-7187.	2.6	14
86	Reactive ZnO/Ti/ZnO interfaces studied by hard x-ray photoelectron spectroscopy. Journal of Applied Physics, 2014, 115, 043714.	2.5	13
87	Energy level alignment in TiO₂/metal sulfide/polymer interfaces for solar cell applications. Physical Chemistry Chemical Physics, 2014, 16, 17099-17107.	2.8	11
88	Electronic structure dynamics in a low bandgap polymer studied by time-resolved photoelectron spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 21921-21929.	2.8	11
89	Growth of Transition-Metal Dichalcogenides by Solvent Evaporation Technique. Crystal Growth and Design, 2020, 20, 6930-6938.	3.0	11
90	Mapping the frontier electronic structures of triphenylamine based organic dyes at TiO₂interfaces. Physical Chemistry Chemical Physics, 2011, 13, 3534-3546.	2.8	10

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91	Ferroelectric properties of BaTiO3 thin films co-doped with Mn and Nb. AIP Advances, 2019, 9, 095207.	1.3	10
92	Solvation structure around ruthenium(II) tris(bipyridine) in lithium halide solutions. Structural Dynamics, 2016, 3, 023607.	2.3	9
93	Passivation of CdS/Cu₂ZnSnS₄ Interface from Surface Treatments of Kesteriteâ€Based Thinâ€Film Solar Cells. Physica Status Solidi (B): Basic Research, 2020, 257, 2000308.	1.5	9
94	A-site cation influence on the conduction band of lead bromide perovskites. Nature Communications, 2022, 13, .	12.8	9
95	Coadsorption of Dye Molecules at TiO2 Surfaces: A Photoelectron Spectroscopy Study. Journal of Physical Chemistry C, 2016, 120, 12484-12494.	3.1	8
96	Band alignment at Ag/ZnO(0001) interfaces: A combined soft and hard x-ray photoemission study. Physical Review B, 2018, 97, .	3.2	8
97	The Complex Degradation Mechanism of Copper Electrodes on Lead Halide Perovskites. ACS Materials Au, 2022, 2, 301-312.	6.0	8
98	In-Situ Probing of H2O Effects on a Ru-Complex Adsorbed on TiO2 Using Ambient Pressure Photoelectron Spectroscopy. Topics in Catalysis, 2016, 59, 583-590.	2.8	7
99	Sensitivity of Nitrogen K-Edge X-ray Absorption to Halide Substitution and Thermal Fluctuations in Methylammonium Lead-Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 8360-8368.	3.1	7
100	Electronic coupling between the unoccupied states of the organic and inorganic sublattices of methylammonium lead iodide: A hybrid organic-inorganic perovskite single crystal. Physical Review B, 2021, 104, .	3.2	7
101	Probing Electrochemical Potential Differences over the Solid/Liquid Interface in Li-Ion Battery Model Systems. ACS Applied Materials & Interfaces, 2021, 13, 32989-32996.	8.0	6
102	Surface/Interface Effects by Alkali Postdeposition Treatments of (Ag,Cu)(In,Ga)Se₂ Thin Film Solar Cells. ACS Applied Energy Materials, 2022, 5, 461-468.	5.1	6
103	Photoelectron spectroscopy investigations of halide perovskite materials used in solar cells. , 2020, , 109-137.		5
104	A method for studying pico to microsecond time-resolved core-level spectroscopy used to investigate electron dynamics in quantum dots. Scientific Reports, 2020, 10, 22438.	3.3	5
105	Experimental and Theoretical Core Level and Valence Band Analysis of Clean Perovskite Single Crystal Surfaces. Small, 2022, 18, e2106450.	10.0	5
106	Lowâ€Temperature Solution Processing of Mesoporous Metalâ€“Sulfide Semiconductors as Lightâ€Harvesting Photoanodes. Angewandte Chemie, 2013, 125, 12269-12273.	2.0	4
107	Electronic Structure Characterization of Crossâ€Linked Sulfur Polymers. ChemPhysChem, 2018, 19, 1041-1047.	2.1	4
108	Role of Fe Doping on Local Structure and Electrical and Magnetic Properties of PbTiO₃. Journal of Physical Chemistry C, 2021, 125, 12342-12354.	3.1	4

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109	Origin of itinerant carriers in antiferromagnetic LaFe1â^'xMoxO3 studied by x-ray spectroscopies. Physical Review Materials, 2020, 4, .	2.4	4
110	Photoelectron Spectroscopy for Chemical Analysis. Chimia, 2015, 69, 22-29.	0.6	3
111	Molecular degradation of D35 and K77 sensitizers when exposed to temperatures exceeding 100 Â°C investigated by photoelectron spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 8598-8607.	2.8	3
112	X-Ray Photoelectron Spectroscopy for Understanding Molecular and Hybrid Solar Cells. Green Chemistry and Sustainable Technology, 2018, , 433-476.	0.7	2
113	Carbon Nanotubes: Promoting the Water Oxidation Catalysis by Synergistic Interactions between Ni(OH)2and Carbon Nanotubes (Adv. Energy Mater. 15/2016). Advanced Energy Materials, 2016, 6, .	19.5	0
114	Composition dependence of photo-induced chemical changes in mixed-ion perovskite materials. , 0, , .		0
115	Core level and valence band analysis of in-situ cleaved perovskite single crystals. , 0, , .		0