

Ronald L Grimm

List of Publications by Year in descending order

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papers

2,251
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471509

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docs citations

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times ranked

3887
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly stable and efficient all-inorganic lead-free perovskite solar cells with native-oxide passivation. <i>Nature Communications</i> , 2019, 10, 16.	12.8	430
2	Cesium Titanium(IV) Bromide Thin Films Based Stable Lead-free Perovskite Solar Cells. <i>Joule</i> , 2018, 2, 558-570.	24.0	403
3	Selective CO ₂ Reduction Catalyzed by Single Cobalt Sites on Carbon Nitride under Visible-Light Irradiation. <i>Journal of the American Chemical Society</i> , 2018, 140, 16042-16047.	13.7	296
4	Dynamics of Field-Induced Droplet Ionization: Time-Resolved Studies of Distortion, Jetting, and Progeny Formation from Charged and Neutral Methanol Droplets Exposed to Strong Electric Fields. <i>Journal of Physical Chemistry B</i> , 2005, 109, 8244-8250.	2.6	153
5	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1702116.	19.5	130
6	Hematite-Based Solar Water Splitting in Acidic Solutions: Functionalization by Mono- and Multilayers of Iridium Oxygen Evolution Catalysts. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11428-11432.	13.8	121
7	High-Performance Lead-Free Solar Cells Based on Tin-Halide Perovskite Thin Films Functionalized by a Divalent Organic Cation. <i>ACS Energy Letters</i> , 2020, 5, 2223-2230.	17.4	96
8	Synergy between Defects, Photoexcited Electrons, and Supported Single Atom Catalysts for CO ₂ Reduction. <i>ACS Catalysis</i> , 2018, 8, 10464-10478.	11.2	85
9	Evaporation and Discharge Dynamics of Highly Charged Multicomponent Droplets Generated by Electrospray Ionization. <i>Journal of Physical Chemistry A</i> , 2010, 114, 1411-1419.	2.5	71
10	Comparison of the Photoelectrochemical Behavior of H-Terminated and Methyl-Terminated Si(111) Surfaces in Contact with a Series of One-Electron, Outer-Sphere Redox Couples in CH ₃ CN. <i>Journal of Physical Chemistry C</i> , 2012, 116, 23569-23576.	3.1	64
11	Probing Interfacial Chemistry of Single Droplets with Field-Induced Droplet Ionization Mass Spectrometry: Physical Adsorption of Polycyclic Aromatic Hydrocarbons and Ozonolysis of Oleic Acid and Related Compounds. <i>Analytical Chemistry</i> , 2006, 78, 3800-3806.	6.5	55
12	Photoelectrochemical Properties and Behavior of \pm -SnWO ₄ Photoanodes Synthesized by Hydrothermal Conversion of WO ₃ Films. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1459-1470.	8.0	42
13	Balancing Light Absorption and Charge Transport in Vertical SnS ₂ Nanoflake Photoanodes with Stepped Layers and Large Intrinsic Mobility. <i>Advanced Energy Materials</i> , 2019, 9, 1901236.	19.5	41
14	Enhancing the solar energy conversion efficiency of solution-deposited Bi ₂ S ₃ thin films by annealing in sulfur vapor at elevated temperature. <i>Sustainable Energy and Fuels</i> , 2017, 1, 2134-2144.	4.9	25
15	ZSM-5 decrystallization and dealumination in hot liquid water. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 17880-17892.	2.8	24
16	Interfacial States, Energetics, and Atmospheric Stability of Large-Grain Antifluorite Cs ₂ TiBr ₆ . <i>Journal of Physical Chemistry C</i> , 2020, 124, 24289-24297.	3.1	21
17	Synthesis and Characterization of Alkylamine-Functionalized Si(111) for Perovskite Adhesion With Minimal Interfacial Oxidation or Electronic Defects. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 34377-34388.	8.0	18
18	Prospects of CO ₂ capture via 13X for low-carbon hydrogen production using a Pd-based metallic membrane reactor. <i>Chemical Engineering Journal</i> , 2021, 407, 127224.	12.7	18

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19	Elucidation of Chemical Species and Reactivity at Methylammonium Lead Iodide and Cesium Tin Bromide Perovskite Surfaces via Orthogonal Reaction Chemistry. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17882-17894.	3.1	16
20	Detection of adsorbates on emissive MOF surfaces with X-ray photoelectron spectroscopy. <i>Dalton Transactions</i> , 2019, 48, 4520-4529.	3.3	13
21	Dynamics of Photoexcited Carriers in Polycrystalline PbS and at PbS/ZnO Heterojunctions: Influence of Grain Boundaries and Interfaces. <i>Journal of Physical Chemistry C</i> , 2018, 122, 11682-11688.	3.1	12
22	The stability and oxidation of supported atomic-size Cu catalysts in reactive environments. <i>Journal of Chemical Physics</i> , 2019, 151, 054702.	3.0	11
23	Hypervelocity microparticle impact studies using a novel cosmic dust mass spectrometer. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	9
24	Waste-to-wealth application of wastewater treatment algae-derived hydrochar for Pb(II) adsorption. <i>MethodsX</i> , 2021, 8, 101263.	1.6	9
25	Operation of lightly doped Si microwires under high-level injection conditions. <i>Energy and Environmental Science</i> , 2014, 7, 2329-2338.	30.8	8
26	Synthesis and optoelectronic properties of a promising quaternary metal oxide light absorber CuBiW_2O_8 . <i>Journal of Materials Chemistry A</i> , 2021, 9, 1643-1654.	10.3	8
27	A study of the effects of a thermally evaporated nanoscale CsBr layer on the optoelectronic properties and stability of formamidinium-rich perovskite solar cells. <i>AIP Advances</i> , 2021, 11, 095112.	1.3	8
28	Interfacial fracture of hybrid organic-inorganic perovskite solar cells. <i>Extreme Mechanics Letters</i> , 2022, 50, 101515.	4.1	7
29	A Strategy for Trapping Molecular Guests in MOF-5 Utilizing Surface-Capping Groups. <i>Crystal Growth and Design</i> , 2019, 19, 6331-6338.	3.0	6
30	Covalent Attachment and Characterization of Perylene Monolayers on Si(111) and TiO_2 for Electron-Selective Carrier Transport. <i>Langmuir</i> , 2019, 35, 9352-9363.	3.5	5
31	Photoelectrochemical characterization of Si microwire array solar cells. , 2012, , .		4
32	Enhanced Stability and Efficiency for Photoelectrochemical Iodide Oxidation by Methyl Termination and Electrochemical Pt Deposition on n-Type Si Microwire Arrays. <i>ACS Energy Letters</i> , 2019, 4, 2308-2314.	17.4	4
33	On-demand guest release from MOF-5 sealed with nitrophenylacetic acid photocapping groups. <i>Photochemical and Photobiological Sciences</i> , 2019, 18, 2849-2853.	2.9	3
34	Open-Circuit Photovoltage Exceeding 950 mV with an 840 mV Average at Sb_2S_3 -Thianthrene+/0 Junctions Enabled by Thioperylene Anhydride Back Contacts. <i>ACS Omega</i> , 2020, 5, 16875-16884.	3.5	3
35	Quantification of Surface Reactivity and Step-Selective Etching Chemistry on Single-Crystal $\text{BiOI}(001)$. <i>Langmuir</i> , 2020, 36, 9343-9355.	3.5	3
36	Dual Liquid Junction Photoelectrochemistry: Part I. Dual-Cuvette and Dual-Thin-Film Cells for Screening and Quantification of Back-Contact Properties. <i>Journal of the Electrochemical Society</i> , 2017, 164, H798-H804.	2.9	2

#	ARTICLE	IF	CITATIONS
37	Dual Liquid Junction Photoelectrochemistry: Part II. Open-Circuit Photovoltage Variations Due to Surface Chemistry, Interfacial Dipoles, and Non-Ohmic Junctions at Back Contacts. Journal of the Electrochemical Society, 2019, 166, H608-H614.	2.9	2
38	Carrier Dynamics in SnS ₂ Single Crystals and Vertical Nanostructures: Role of Edges. , 2018, , .		1