

Stefan A L Weber

List of Publications by Year in descending order

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61
papers

2,890
citations

186209

28
h-index

168321

53
g-index

64
all docs

64
docs citations

64
times ranked

4461
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-space observation of unbalanced charge distribution inside a perovskite-sensitized solar cell. <i>Nature Communications</i> , 2014, 5, 5001.	5.8	294
2	How the formation of interfacial charge causes hysteresis in perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 2404-2413.	15.6	289
3	Two birds with one stone: dual grain-boundary and interface passivation enables >22% efficient inverted methylammonium-free perovskite solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 5875-5893.	15.6	180
4	Ferroelastic Fingerprints in Methylammonium Lead Iodide Perovskite. <i>Journal of Physical Chemistry C</i> , 2016, 120, 5724-5731.	1.5	154
5	Thermodynamics of nanosecond nanobubble formation at laser-excited metal nanoparticles. <i>New Journal of Physics</i> , 2011, 13, 043018.	1.2	138
6	Local Time-Dependent Charging in a Perovskite Solar Cell. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 19402-19409.	4.0	109
7	The application of atomic force microscopy in mineral flotation. <i>Advances in Colloid and Interface Science</i> , 2018, 256, 373-392.	7.0	108
8	Humidity-Induced Grain Boundaries in MAPbI ₃ Perovskite Films. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6363-6368.	1.5	103
9	Probing charge screening dynamics and electrochemical processes at the solid-liquid interface with electrochemical force microscopy. <i>Nature Communications</i> , 2014, 5, 3871.	5.8	97
10	Characterization of Quantum Dot/Conducting Polymer Hybrid Films and Their Application to Light-Emitting Diodes. <i>Advanced Materials</i> , 2009, 21, 5022-5026.	11.1	90
11	Electrical Modes in Scanning Probe Microscopy. <i>Macromolecular Rapid Communications</i> , 2009, 30, 1167-1178.	2.0	77
12	Grafting Silicone at Room Temperature—a Transparent, Scratch-resistant Nonstick Molecular Coating. <i>Langmuir</i> , 2020, 36, 4416-4431.	1.6	76
13	The Interplay of Contact Layers: How the Electron Transport Layer Influences Interfacial Recombination and Hole Extraction in Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6249-6256.	2.1	68
14	Adaptive Wetting—Adaptation in Wetting. <i>Langmuir</i> , 2018, 34, 11292-11304.	1.6	66
15	Slide electrification: charging of surfaces by moving water drops. <i>Soft Matter</i> , 2019, 15, 8667-8679.	1.2	66
16	Open loop Kelvin probe force microscopy with single and multi-frequency excitation. <i>Nanotechnology</i> , 2013, 24, 475702.	1.3	63
17	Spontaneous charging affects the motion of sliding drops. <i>Nature Physics</i> , 2022, 18, 713-719.	6.5	62
18	Photoreduction of SERS-Active Metallic Nanostructures on Chemically Patterned Ferroelectric Crystals. <i>ACS Nano</i> , 2012, 6, 7373-7380.	7.3	59

#	ARTICLE	IF	CITATIONS
19	Ion Specificity on Electric Energy Generated by Flowing Water Droplets. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2091-2095.	7.2	58
20	Removal of Surface Oxygen Vacancies Increases Conductance Through TiO ₂ Thin Films for Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2019, 123, 13458-13466.	1.5	54
21	Dual harmonic Kelvin probe force microscopy at the graphene-liquid interface. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	50
22	Orientation of Ferroelectric Domains and Disappearance upon Heating Methylammonium Lead Triiodide Perovskite from Tetragonal to Cubic Phase. <i>ACS Applied Energy Materials</i> , 2018, 1, 1534-1539.	2.5	49
23	Know your full potential: Quantitative Kelvin probe force microscopy on nanoscale electrical devices. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1809-1819.	1.5	47
24	Electrical characterization of organic solar cell materials based on scanning force microscopy. <i>European Polymer Journal</i> , 2013, 49, 1907-1915.	2.6	46
25	Kelvin Probe Force Microscopy in Nonpolar Liquids. <i>Langmuir</i> , 2012, 28, 13892-13899.	1.6	35
26	Photoinduced Degradation Studies of Organic Solar Cell Materials Using Kelvin Probe Force and Conductive Scanning Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 19994-20001.	1.5	33
27	Evidence of Tailoring the Interfacial Chemical Composition in Normal Structure Hybrid Organohalide Perovskites by a Self-Assembled Monolayer. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 5511-5518.	4.0	32
28	Light Induced Charging of Polymer Functionalized Nanorods. <i>Nano Letters</i> , 2010, 10, 2812-2816.	4.5	29
29	Surface Modification of TiO ₂ Photoanodes with Fluorinated Self-Assembled Monolayers for Highly Efficient Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25741-25747.	4.0	29
30	Fine Customization of Calcium Phosphate Nanostructures with Site-Specific Modification by DNA Templated Mineralization. <i>ACS Nano</i> , 2021, 15, 1555-1565.	7.3	29
31	Detaching Microparticles from a Liquid Surface. <i>Physical Review Letters</i> , 2018, 121, 048002.	2.9	27
32	Anisotropic carrier diffusion in single MAPbI ₃ grains correlates to their twin domains. <i>Energy and Environmental Science</i> , 2020, 13, 4168-4177.	15.6	27
33	Mapping of Local Conductivity Variations on Fragile Nanopillar Arrays by Scanning Conductive Torsion Mode Microscopy. <i>Nano Letters</i> , 2010, 10, 1194-1197.	4.5	25
34	Integrated blocking layers for hybrid organic solar cells. <i>Energy and Environmental Science</i> , 2009, 2, 783.	15.6	23
35	Template-Based Preparation of Free-Standing Semiconducting Polymeric Nanorod Arrays on Conductive Substrates. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 1573-1580.	4.0	23
36	Irradiation uniformity at the Laser MegaJoule facility in the context of the shock ignition scheme. <i>High Power Laser Science and Engineering</i> , 2014, 2, .	2.0	23

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37	Enhanced power conversion efficiency of inverted organic solar cells by using solution processed Sn-doped TiO ₂ as an electron transport layer. <i>Journal of Materials Chemistry A</i> , 2014, 2, 11426.	5.2	20
38	Preparing DNA-mimicking multi-line nanocaterpillars <i>via in situ</i> nanoparticlisation of fully conjugated polymers. <i>Polymer Chemistry</i> , 2016, 7, 1422-1428.	1.9	19
39	IM30 IDPs form a membrane-protective carpet upon super-complex disassembly. <i>Communications Biology</i> , 2020, 3, 595.	2.0	16
40	Quantitative comparison of closed-loop and dual harmonic Kelvin probe force microscopy techniques. <i>Review of Scientific Instruments</i> , 2018, 89, 123708.	0.6	13
41	Charging of drops impacting onto superhydrophobic surfaces. <i>Soft Matter</i> , 2022, 18, 1628-1635.	1.2	12
42	Investigating morphology and electronic properties of self-assembled hybrid systems for solar cells. <i>Journal of Materials Chemistry</i> , 2011, 21, 7765.	6.7	10
43	Tuning the Charge of Sliding Water Drops. <i>Langmuir</i> , 2022, 38, 6224-6230.	1.6	10
44	Martini 3 Model of Cellulose Microfibrils: On the Route to Capture Large Conformational Changes of Polysaccharides. <i>Molecules</i> , 2022, 27, 976.	1.7	7
45	Electrical tip-sample contact in scanning conductive torsion mode. <i>Applied Physics Letters</i> , 2013, 102, 163105.	1.5	6
46	Alignment of solid targets under extreme tight focus conditions generated by an ellipsoidal plasma mirror. <i>Matter and Radiation at Extremes</i> , 2019, 4, 024402.	1.5	6
47	High viscosity environments: an unexpected route to obtain true atomic resolution with atomic force microscopy. <i>Nanotechnology</i> , 2014, 25, 175701.	1.3	5
48	Electrical Scanning Probe Microscopy of an Integrated Blocking Layer. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 6840-6844.	0.9	4
49	Ion Specificity on Electric Energy Generated by Flowing Water Droplets. <i>Angewandte Chemie</i> , 2018, 130, 2113-2117.	1.6	4
50	Electrodeposition of ZnO nanorods on opaline replica as hierarchically structured systems. <i>Journal of Materials Chemistry</i> , 2011, 21, 1079-1085.	6.7	3
51	Electrical Characterization of Solar Cell Materials Using Scanning Probe Microscopy. <i>Nanoscience and Technology</i> , 2012, , 551-573.	1.5	3
52	Applications of KPFM-Based Approaches for Surface Potential and Electrochemical Measurements in Liquid. <i>Springer Series in Surface Sciences</i> , 2018, , 391-433.	0.3	3
53	Wave-based laser absorption method for high-order transport hydrodynamic codes. <i>Advances in Computational Mathematics</i> , 2019, 45, 1953-1976.	0.8	3
54	Recent progress in atomic and molecular physics for controlled fusion and astrophysics. <i>Matter and Radiation at Extremes</i> , 2021, 6, 023002.	1.5	3

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55	On the Shape-Selected, Ligand-Free Preparation of Hybrid Perovskite (CH ₃ NH ₃ PbBr ₃) Microcrystals and Their Suitability as Model-System for Single-Crystal Studies of Optoelectronic Properties. <i>Nanomaterials</i> , 2021, 11, 3057.	1.9	3
56	Preface to Special Topic: Extreme High-Field Physics Driven by Lasers. <i>Matter and Radiation at Extremes</i> , 2019, 4, 063002.	1.5	0
57	Watching Ions Move: Scanning Probe Microscopy on Perovskite Solar Cells. , 0, , .		0
58	Two Birds with One Stone: Dual Grain-Boundary and Interface Passivation Enables > 22% Efficient Inverted Methylammonium-Free Perovskite Solar Cells. , 0, , .		0
59	Correlating Cathodoluminescence and Kelvin Probe Force Microscopy Measurements of Methylammonium-Free 2D Ruddlesden Popper Passivated Perovskite Absorbers. , 0, , .		0
60	Anisotropic Charge Carrier Diffusion Correlated to Ferroelastic Twin Domains in MAPbI ₃ Perovskite. , 0, , .		0
61	Watching Ions Move: Scanning Probe Microscopy on Perovskite Solar Cells. , 0, , .		0