Helge S Stein

List of Publications by Year
in descending order

35 papers	1,453 citations	361413 20 h-index	361022 35 g-index
36 all docs	36 docs citations	36 times ranked	1843 citing authors

#	Article	IF	Citations
1	The potential of scanning electrochemical probe microscopy and scanning droplet cells in battery research. Electrochemical Science Advances, 2022, 2, e2100122.	2.8	12
2	Highâ€Throughput Experimentation and Computational Freeway Lanes for Accelerated Battery Electrolyte and Interface Development Research. Advanced Energy Materials, 2022, 12, 2102678.	19.5	40
3	Implications of the BATTERY 2030+ AIâ€Assisted Toolkit on Future Lowâ€TRL Battery Discoveries and Chemistries. Advanced Energy Materials, 2022, 12, 2102698.	19.5	20
4	Enabling Modular Autonomous Feedbackâ€Loops in Materials Science through Hierarchical Experimental Laboratory Automation and Orchestration. Advanced Materials Interfaces, 2022, 9, 2101987.	3.7	23
5	A Roadmap for Transforming Research to Invent the Batteries of the Future Designed within the European Large Scale Research Initiative BATTERY 2030+. Advanced Energy Materials, 2022, 12, .	19.5	70
6	Rechargeable Batteries of the Futureâ€"The State of the Art from a BATTERY 2030+ Perspective. Advanced Energy Materials, 2022, 12, .	19.5	124
7	From materials discovery to system optimization by integrating combinatorial electrochemistry and data science. Current Opinion in Electrochemistry, 2022, 35, 101053.	4.8	17
8	Advancing data-driven chemistry by beating benchmarks. Trends in Chemistry, 2022, 4, 682-684.	8.5	5
9	Data Management Plans: the Importance of Data Management in the BIGâ€MAP Project**. Batteries and Supercaps, 2021, 4, 1803-1812.	4.7	19
10	Combinatorial screening yields discovery of 29 metal oxide photoanodes for solar fuel generation. Journal of Materials Chemistry A, 2020, 8, 4239-4243.	10.3	13
11	Benchmarking the acceleration of materials discovery by sequential learning. Chemical Science, 2020, 11, 2696-2706.	7.4	83
12	Photocurrent Recombination Through Surface Segregation in Alâ€"Crâ€"Feâ€"O Photocathodes. Zeitschrift Fur Physikalische Chemie, 2020, 234, 605-614.	2.8	3
13	High-throughput, combinatorial synthesis of multimetallic nanoclusters. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6316-6322.	7.1	119
14	Die Materialsynthesemaschine. Nachrichten Aus Der Chemie, 2020, 68, 66-69.	0.0	1
15	Multi-component background learning automates signal detection for spectroscopic data. Npj Computational Materials, 2019, 5, .	8.7	21
16	Tracking materials science data lineage to manage millions of materials experiments and analyses. Npj Computational Materials, 2019, 5, .	8.7	40
17	Inverse Design of Solid-State Materials via a Continuous Representation. Matter, 2019, 1, 1370-1384.	10.0	198
18	Machine learning of optical properties of materials â€" predicting spectra from images and images from spectra. Chemical Science, 2019, 10, 47-55.	7.4	86

#	Article	IF	Citations
19	Analyzing machine learning models to accelerate generation of fundamental materials insights. Npj Computational Materials, 2019, 5, .	8.7	60
20	Synthesis, optical imaging, and absorption spectroscopy data for 179072 metal oxides. Scientific Data, 2019, 6, 9.	5.3	14
21	Functional mapping reveals mechanistic clusters for OER catalysis across (Cuâ€“Mnâ€“Taâ€“Coâ€“Snâ€“Fe)O_x composition and pH space. Materials Horizons, 2019, 6, 1251-1258.	12.2	22
22	Progress and prospects for accelerating materials science with automated and autonomous workflows. Chemical Science, 2019, 10, 9640-9649.	7.4	114
23	Alkaline-stable nickel manganese oxides with ideal band gap for solar fuel photoanodes. Chemical Communications, 2018, 54, 4625-4628.	4.1	2
24	Accelerated atomic-scale exploration of phase evolution in compositionally complex materials. Materials Horizons, 2018, 5, 86-92.	12.2	72
25	Combinatorial Study on Phase Formation and Oxidation in the Thin Film Superalloy Subsystems Coâ€“Alâ€“Cr and Coâ€“Alâ€“Crâ€“W. ACS Combinatorial Science, 2018, 20, 611-620.	3.8	7
26	Charge Carrier Lifetimes in Crâ€“Feâ€“Alâ€“O Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 35869-35875.	8.0	3
27	Bi-Containing n-FeWO4 Thin Films Provide the Largest Photovoltage and Highest Stability for a Sub-2 eV Band Gap Photoanode. ACS Energy Letters, 2018, 3, 2769-2774.	17.4	20
28	Correlating Oxygen Evolution Catalysts Activity and Electronic Structure by a High-Throughput Investigation of Ni1-y-zFeyCrzOx. Scientific Reports, 2017, 7, 44192.	3.3	32
29	Expediting Combinatorial Data Set Analysis by Combining Human and Algorithmic Analysis. ACS Combinatorial Science, 2017, 19, 1-8.	3.8	19
30	Combinatorial screening of Pd-based quaternary electrocatalysts for oxygen reduction reaction in alkaline media. Journal of Materials Chemistry A, 2017, 5, 67-72.	10.3	30
31	New materials for the light-induced hydrogen evolution reaction from the Cuâ€“Siâ€“Tiâ€“O system. Journal of Materials Chemistry A, 2016, 4, 3148-3152.	10.3	13
32	Structural and multifunctional properties of magnetron-sputtered Feâ€“P(â€“Mn) thin films. Thin Solid Films, 2016, 603, 262-267.	1.8	5
33	A structure zone diagram obtained by simultaneous deposition on a novel step heater: A case study for Cu₂O thin films. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2798-2804.	1.8	26
34	Feâ€“Crâ€“Al Containing Oxide Semiconductors as Potential Solar Water-Splitting Materials. ACS Applied Materials & Interfaces, 2015, 7, 4883-4889.	8.0	39
35	In Situ Electrochemical Electron Microscopy Study of Oxygen Evolution Activity of Doped Manganite Perovskites. Advanced Functional Materials, 2012, 22, 3378-3388.	14.9	79