Sean P Culver

List of Publications by Year
in descending order

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Version: 2024-02-01

24 papers	2,864 citations	331670 21 h-index	610901 24 g-index
24 all docs	24 docs citations	24 times ranked	2265 citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of Lattice Polarizability on the Ionic Conductivity in the Lithium Superionic Argyrodites Li₆PS₅X (X = Cl, Br, I). Journal of the American Chemical Society, 2017, 139, 10909-10918.	13.7	446
2	Inducing High Ionic Conductivity in the Lithium Superionic Argyrodites Li_{6+<i>x</i>}P_{1â€"<i>x</i>}Ge_{<i>x</i>}S₅I for All-Solid-State Batteries. Journal of the American Chemical Society, 2018, 140, 16330-16339.	13.7	331
3	Degradation Mechanisms at the Li₁₀GeP₂S₁₂/LiCoO₂ Cathode Interface in an All-Solid-State Lithium-Ion Battery. ACS Applied Materials & Interfaces, 2018, 10, 22226-22236.	8.0	250
4	Lithium ion conductivity in Li₂Sâ€"P₂S₅ glasses â€" building units and local structure evolution during the crystallization of superionic conductors Li₃PS₄, Li₇P₃S₁₁ and Li₄P₂S₇. Journal of Materials Chemistry A, 2017, 5, 18111-18119.	10.3	233
5	On the Functionality of Coatings for Cathode Active Materials in Thiophosphateâ€Based Allâ€Solidâ€State Batteries. Advanced Energy Materials, 2019, 9, 1900626.	19.5	221
6	Designing Ionic Conductors: The Interplay between Structural Phenomena and Interfaces in Thiophosphate-Based Solid-State Batteries. Chemistry of Materials, 2018, 30, 4179-4192.	6.7	131
7	Effect of Si substitution on the structural and transport properties of superionic Li-argyrodites. Journal of Materials Chemistry A, 2018, 6, 645-651.	10.3	128
8	Comparing the Descriptors for Investigating the Influence of Lattice Dynamics on Ionic Transport Using the Superionic Conductor Na₃PS_{4â€"<i>x</i>}Se_{<i>x</i>}. Journal of the American Chemical Society, 2018, 140, 14464-14473.	13.7	122
9	Bottleneck of Diffusion and Inductive Effects in Li₁₀Ge_{1â€"<i>x</i>}Sn_{<i>x</i>}P₂S₁₂. Chemistry of Materials, 2018, 30, 1791-1798.	6.7	114
10	Further Evidence for Energy Landscape Flattening in the Superionic Argyrodites Li_{6+<i>x</i>}P_{1â€"<i>x</i>}M_{<i>x</i>}S₅I (M = Si, Ge, Sn). Chemistry of Materials, 2019, 31, 4936-4944.	6.7	109
11	Defect-Mediated Conductivity Enhancements in Na_{3â€"<i>x</i>}Pn_{1â€"<i>x</i>}W_{<i>x</i>}S₄ (Pn = P, Sb) Using Aliovalent Substitutions. ACS Energy Letters, 2020, 5, 146-151.	17.4	100
12	Synthesis, Structural Characterization, and Lithium Ion Conductivity of the Lithium Thiophosphate Li₂P₂S₆. Inorganic Chemistry, 2017, 56, 6681-6687.	4.0	98
13	Competing Structural Influences in the Li Superionic Conducting Argyrodites Li₆PS_{5â€"<i>x</i>}Se<i>_{<i>x</i>}</i>Br (0 â‰ <i>x</i> â‰ 1) upon Se Substitution. Inorganic Chemistry, 2018, 57, 13920-13928.	4.0	82
14	Solution-based synthesis of lithium thiophosphate superionic conductors for solid-state batteries: a chemistry perspective. Journal of Materials Chemistry A, 2019, 7, 17735-17753.	10.3	82
15	Rapid Crystallization and Kinetic Freezing of Site-Disorder in the Lithium Superionic Argyrodite Li₆PS₅Br. Chemistry of Materials, 2019, 31, 10178-10185.	6.7	72
16	Investigation of Fluorine and Nitrogen as Anionic Dopants in Nickel-Rich Cathode Materials for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 44452-44462.	8.0	63
17	Enhancing the Electrochemical Performance of LiNi_{0.70}Co_{0.15}Mn_{0.15}O₂ Cathodes Using a Practical Solution-Based Al₂O₃ Coating. ACS Applied Materials & Interfaces, 2020, 12, 31392-31400.	8.0	57
18	Changing the Static and Dynamic Lattice Effects for the Improvement of the Ionic Transport Properties within the Argyrodite Li₆PS_{5â€"<i>x</i>}Se_{<i>x</i>}I. ACS Applied Energy Materials, 2020, 3, 9-18.	5.1	52

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19	Evidence for a Solid-Electrolyte Inductive Effect in the Superionic Conductor Li₁₀Ge_{1â€“<i>x</i>}Sn_{<i>x</i>}P₂S₁₂. Journal of the American Chemical Society, 2020, 142, 21210-21219.	13.7	43
20	Vacancy and anti-site disorder scattering in AgBiSe₂ thermoelectrics. Dalton Transactions, 2017, 46, 3906-3914.	3.3	39
21	Influence of the Lithium Substructure on the Diffusion Pathways and Transport Properties of the Thio-LISICON Li₄Ge_{1â€“<i>x</i>}Sn_{<i>x</i>}S₄. Chemistry of Materials, 2019, 31, 3794-3802.	6.7	39
22	A Rapid and Facile Approach for the Recycling of Highâ€Performance LiNi_{1â^'<i>x</i>â^'<i>y</i>}Co_{<i>x</i>}Mn_{<i>y</i>}O₂ Active Materials. ChemSusChem, 2021, 14, 441-448.	6.8	20
23	Local Structure and Influence of Sb Substitution on the Structureâ€“Transport Properties in AgBiSe₂. Inorganic Chemistry, 2019, 58, 9236-9245.	4.0	18
24	Ionic Conductivity of the NASICONâ€Related Thiophosphate Na_{1+<i>x</i>}Ti_{2â^'<i>x</i>}Ga_{<i>x</i>}(PS₄)₃. Chemistry - A European Journal, 2019, 25, 4143-4148.	3.3	14