

Iek-Heng Chu

List of Publications by Year in descending order

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27
papers

1,931
citations

430874

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642732

23
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27
all docs

27
docs citations

27
times ranked

2425
citing authors

#	ARTICLE	IF	CITATIONS
1	Elastic Properties of Alkali Superionic Conductor Electrolytes from First Principles Calculations. <i>Journal of the Electrochemical Society</i> , 2016, 163, A67-A74.	2.9	265
2	Room-Temperature All-solid-state Rechargeable Sodium-ion Batteries with a Cl-doped Na ₃ PS ₄ Superionic Conductor. <i>Scientific Reports</i> , 2016, 6, 33733.	3.3	205
3	Role of Na ⁺ Interstitials and Dopants in Enhancing the Na ⁺ Conductivity of the Cubic Na ₃ PS ₄ Superionic Conductor. <i>Chemistry of Materials</i> , 2015, 27, 8318-8325.	6.7	202
4	Data-Driven First-Principles Methods for the Study and Design of Alkali Superionic Conductors. <i>Chemistry of Materials</i> , 2017, 29, 281-288.	6.7	190
5	Insights into the Performance Limits of the Li ₇ P ₃ S ₁₁ Superionic Conductor: A Combined First-Principles and Experimental Study. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 7843-7853.	8.0	169
6	Probing Solid-Solid Interfacial Reactions in All-Solid-State Sodium-Ion Batteries with First-Principles Calculations. <i>Chemistry of Materials</i> , 2018, 30, 163-173.	6.7	150
7	Thermal Stability and Reactivity of Cathode Materials for Li-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 7013-7021.	8.0	93
8	New Insights into the Interphase between the Na Metal Anode and Sulfide Solid-State Electrolytes: A Joint Experimental and Computational Study. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10076-10086.	8.0	86
9	Li ₃ Y(PS ₄) ₂ and Li ₅ PS ₄ Cl ₂ : New Lithium Superionic Conductors Predicted from Silver Thiophosphates using Efficiently Tiered Ab Initio Molecular Dynamics Simulations. <i>Chemistry of Materials</i> , 2017, 29, 2474-2484.	6.7	85
10	Electronic Structure Descriptor for the Discovery of Narrow-Band Red-Emitting Phosphors. <i>Chemistry of Materials</i> , 2016, 28, 4024-4031.	6.7	78
11	Charge Transport in a Quantum Dot Supercrystal. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21409-21415.	3.1	73
12	Studies of Functional Defects for Fast Na ⁺ Conduction in Na ₃ YPS ₄ Cl _x with a Combined Experimental and Computational Approach. <i>Advanced Functional Materials</i> , 2019, 29, 1807951.	14.9	51
13	Elucidating Structure-Composition-Property Relationships of the $\hat{\Gamma}^2$ -SiAlON:Eu ²⁺ Phosphor. <i>Chemistry of Materials</i> , 2016, 28, 8622-8630.	6.7	50
14	KVOPO ₄ : A New High Capacity Multielectron Na ⁺ Battery Cathode. <i>Advanced Energy Materials</i> , 2018, 8, 1800221.	19.5	50
15	Comparison of the polymorphs of VOPO ₄ as multi-electron cathodes for rechargeable alkali-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17421-17431.	10.3	46
16	Effects of Transition-Metal Mixing on Na Ordering and Kinetics in Layered P_2O_7 Oxides. <i>Physical Review Applied</i> , 2017, 7, .	3.8	34
17	All-electron self-consistent GW the Matsubara-time domain: Implementation and benchmarks of semiconductors and insulators. <i>Physical Review B</i> , 2016, 93, .	3.2	23
18	Rational synthesis and electrochemical performance of LiVOPO ₄ polymorphs. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8423-8432.	10.3	20

#	ARTICLE	IF	CITATIONS
19	All-electron GW quasiparticle band structures of group 14 nitride compounds. Journal of Chemical Physics, 2014, 141, 044709.	3.0	17
20	Electron transport in graphene/graphene side-contact junction by plane-wave multiple-scattering method. Physical Review B, 2015, 91, .	3.2	12
21	Structural Changes in a High-Energy Density VO ₂ Cathode upon Heating and Li Cycling. ACS Applied Energy Materials, 2018, 1, 4514-4521.	5.1	10
22	Using light-switching molecules to modulate charge mobility in a quantum dot array. Physical Review B, 2014, 89, .	3.2	8
23	Ab Initio Molecular Dynamics Studies of Fast Ion Conductors. , 2018, , 147-168.		8
24	Predicting the volumes of crystals. Computational Materials Science, 2018, 146, 184-192.	3.0	4
25	Battery Electrodes, Electrolytes, and Their Interfaces. , 2018, , 1-24.		1
26	Battery Electrodes, Electrolytes, and Their Interfaces. , 2019, , 1-24.		1
27	Battery Electrodes, Electrolytes, and Their Interfaces. , 2020, , 1231-1254.		0