

Ryan T Pekarek

List of Publications by Year in descending order

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933447

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17
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532
citing authors

#	ARTICLE	IF	CITATIONS
1	Photoelectrochemical operation of a surface-bound, nickel-phosphine H ₂ evolution catalyst on p-Si(111): a molecular semiconductor catalyst construct. Chemical Communications, 2015, 51, 13264-13267.	4.1	66
2	Intrinsic chemical reactivity of solid-electrolyte interphase components in silicon–lithium alloy anode batteries probed by FTIR spectroscopy. Journal of Materials Chemistry A, 2020, 8, 7897-7906.	10.3	49
3	Hybrid Organic/Inorganic Band-Edge Modulation of p-Si(111) Photoelectrodes: Effects of R, Metal Oxide, and Pt on H ₂ Generation. Journal of the American Chemical Society, 2015, 137, 3173-3176.	13.7	47
4	Platinum-Enhanced Electron Transfer and Surface Passivation through Ultrathin Film Aluminum Oxide (Al ₂ O ₃) on Si(111)–CH ₃ Photoelectrodes. ACS Applied Materials & Interfaces, 2015, 7, 8572-8584.	8.0	30
5	Steric Spacing of Molecular Linkers on Passivated Si(111) Photoelectrodes. ACS Applied Materials & Interfaces, 2014, 6, 20557-20568.	8.0	21
6	Identifying Charge Transfer Mechanisms across Semiconductor Heterostructures via Surface Dipole Modulation and Multiscale Modeling. Journal of the American Chemical Society, 2018, 140, 13223-13232.	13.7	19
7	Lowering the Activation Barriers for Lithium-Ion Conductivity through Orientational Disorder in the Cyanide Argyrodite Li ₆ PS ₅ CN. Chemistry of Materials, 2021, 33, 5127-5136.	6.7	17
8	Examining CO ₂ as an Additive for Solid Electrolyte Interphase Formation on Silicon Anodes. Journal of the Electrochemical Society, 2021, 168, 030534.	2.9	16
9	Silicon Photoelectrode Thermodynamics and Hydrogen Evolution Kinetics Measured by Intensity-Modulated High-Frequency Resistivity Impedance Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 5253-5258.	4.6	16
10	Synthetic Insights into Surface Functionalization of Si(111)–R Photoelectrodes: Steric Control and Deprotection of Molecular Passivating Layers. Langmuir, 2018, 34, 6328-6337.	3.5	12
11	Transient Evolution of the Built-in Field at Junctions of GaAs. ACS Applied Materials & Interfaces, 2020, 12, 40339-40346.	8.0	10
12	Energetic effects of hybrid organic/inorganic interfacial architecture on nanoporous black silicon photoelectrodes. Sustainable Energy and Fuels, 2019, 3, 1660-1667.	4.9	8
13	Decoupling Kinetics and Thermodynamics of Interfacial Catalysis at a Chemically Modified Black Silicon Semiconductor Photoelectrode. ACS Energy Letters, 2020, 5, 1848-1855.	17.4	8
14	Understanding why poly(acrylic acid) works: decarbonylation and cross-linking provide an ionically conductive passivation layer in silicon anodes. Journal of Materials Chemistry A, 2021, 9, 21929-21938.	10.3	6
15	Energetic Tug-of-War between Pt and Leaky TiO ₂ : Positive and Negative Effects on the Function of Molecularly Modified p-Si(111) TiO ₂ Pt Photocathodes. ChemElectroChem, 2020, 7, 1048-1056.	3.4	2
16	Molecular Functionalization of Semiconductor Surfaces. Springer Handbooks, 2022, , 923-964.	0.6	2
17	Disentangling Thermodynamic and Kinetic Effects at Photoelectrochemical Interfaces Via Intensity-Modulated High-Frequency Resistivity (IMHFR). ECS Meeting Abstracts, 2019, , .	0.0	0