Hen Dotan

List of Publications by Year
in descending order

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31 papers	3,906 citations	331259 21 h-index	395343 33 g-index
33 all docs	33 docs citations	33 times ranked	5401 citing authors

#	Article	IF	Citations
1	Probing the photoelectrochemical properties of hematite (Î±-Fe₂O₃) electrodes using hydrogen peroxide as a hole scavenger. Energy and Environmental Science, 2011, 4, 958-964.	15.6	933
2	Identifying champion nanostructures for solar water-splitting. Nature Materials, 2013, 12, 842-849.	13.3	527
3	Photoelectrochemical water splitting in separate oxygen and hydrogen cells. Nature Materials, 2017, 16, 646-651.	13.3	418
4	Resonant light trapping in ultrathin films for water splitting. Nature Materials, 2013, 12, 158-164.	13.3	309
5	Decoupled hydrogen and oxygen evolution by a two-step electrochemicalâ€“chemical cycle for efficient overall water splitting. Nature Energy, 2019, 4, 786-795.	19.8	296
6	Enhancement in the Performance of Ultrathin Hematite Photoanode for Water Splitting by an Oxide Underlayer. Advanced Materials, 2012, 24, 2699-2702.	11.1	271
7	Empirical in operando analysis of the charge carrier dynamics in hematite photoanodes by PEIS, IMPS and IMVS. Physical Chemistry Chemical Physics, 2016, 18, 23438-23457.	1.3	131
8	On the Solar to Hydrogen Conversion Efficiency of Photoelectrodes for Water Splitting. Journal of Physical Chemistry Letters, 2014, 5, 3330-3334.	2.1	128
9	Systematic comparison of different dopants in thin film hematite (Î±-Fe₂O₃) photoanodes for solar water splitting. Journal of Materials Chemistry A, 2016, 4, 3091-3099.	5.2	112
10	Decoupled Photoelectrochemical Water Splitting System for Centralized Hydrogen Production. Joule, 2020, 4, 448-471.	11.7	91
11	Hybrid bio-photo-electro-chemical cells for solar water splitting. Nature Communications, 2016, 7, 12552.	5.8	74
12	Beating the Efficiency of Photovoltaics-Powered Electrolysis with Tandem Cell Photoelectrolysis. ACS Energy Letters, 2017, 2, 45-51.	8.8	73
13	High Solar Flux Concentration Water Splitting with Hematite (Î±â€Fe₂O₃) Photoanodes. Advanced Energy Materials, 2016, 6, 1500817.	10.2	72
14	Heterogeneous Doping to Improve the Performance of Thin-Film Hematite Photoanodes for Solar Water Splitting. ACS Energy Letters, 2016, 1, 827-833.	8.8	59
15	Influence of Ti Doping Levels on the Photoelectrochemical Properties of Thin-Film Hematite (Î±-Fe₂O₃) Photoanodes. Journal of Physical Chemistry C, 2017, 121, 4206-4213.	1.5	51
16	The Spatial Collection Efficiency of Charge Carriers in Photovoltaic and Photoelectrochemical Cells. Joule, 2018, 2, 210-224.	11.7	36
17	Effect of Orientation on Bulk and Surface Properties of Sn-doped Hematite (Î±-Fe₂O₃) Heteroepitaxial Thin Film Photoanodes. Journal of Physical Chemistry C, 2016, 120, 28961-28970.	1.5	35
18	High Performance Core/Shell Ni/Ni(OH)₂ Electrospun Nanofiber Anodes for Decoupled Water Splitting. Advanced Functional Materials, 2021, 31, 2008118.	7.8	32

#	Article	IF	Citations
19	Extraction of mobile charge carrier photogeneration yield spectrum of ultrathin-film metal oxide photoanodes for solar water splitting. Nature Materials, 2021, 20, 833-840.	13.3	32
20	Heteroepitaxial hematite photoanodes as a model system for solar water splitting. Journal of Materials Chemistry A, 2016, 4, 3052-3060.	5.2	30
21	Rigorous substrate cleaning process for reproducible thin film hematite (Î±-Fe₂O₃) photoanodes. Journal of Materials Research, 2016, 31, 1565-1573.	1.2	28
22	Effect of Doping and Excitation Wavelength on Charge Carrier Dynamics in Hematite by Timeâ€Resolved Microwave and Terahertz Photoconductivity. Advanced Functional Materials, 2020, 30, 1901590.	7.8	25
23	The Photosystem II D1-K238E mutation enhances electrical current production using cyanobacterial thylakoid membranes in a bio-photoelectrochemical cell. Photosynthesis Research, 2015, 126, 161-169.	1.6	23
24	Two-site H2O2 photo-oxidation on haematite photoanodes. Nature Communications, 2018, 9, 4060.	5.8	22
25	Empirical Analysis of the Photoelectrochemical Impedance Response of Hematite Photoanodes for Water Photo-oxidation. Journal of Physical Chemistry Letters, 2018, 9, 1466-1472.	2.1	19
26	Implementing Strong Interference in Ultrathin Film Top Absorbers for Tandem Solar Cells. ACS Photonics, 2018, 5, 5068-5078.	3.2	19
27	Nano Gold Rush: On the Origin of the Photocurrent Enhancement in Hematite Photoanodes Decorated with Gold Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 15042-15051.	1.5	15
28	Magnetic states at the surface of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub><mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> thin films doped with Ti, Zn, or Sn. Physical Review B, 2017, 96, .	1.1	15
29	Wavelength Dependent Photocurrent of Hematite Photoanodes: Reassessing the Hole Collection Length. Journal of Physical Chemistry C, 2017, 121, 28287-28292.	1.5	15
30	Film Flip and Transfer Process to Enhance Light Harvesting in Ultrathin Absorber Films on Specular Backâ€Reflectors. Advanced Materials, 2018, 30, 1802781.	11.1	12
31	External Quantum Efficiency Spectra of BiVO₄ Thin Film Photoanodes under Bias Illumination. Journal of the Electrochemical Society, 2022, 169, 046513.	1.3	1