Kelsey A Stoerzinger

List of Publications by Year
in descending order

76 papers	9,333 citations	81900 39 h-index	71685 76 g-index
82 all docs	82 docs citations	82 times ranked	10392 citing authors

#	Article	IF	Citations
1	Toward the rational design of non-precious transition metal oxides for oxygen electrocatalysis. Energy and Environmental Science, 2015, 8, 1404-1427.	30.8	1,628
2	Activating lattice oxygen redox reactions in metal oxides to catalyse oxygen evolution. Nature Chemistry, 2017, 9, 457-465.	13.6	1,409
3	Influence of Oxygen Evolution during Water Oxidation on the Surface of Perovskite Oxide Catalysts. Journal of Physical Chemistry Letters, 2012, 3, 3264-3270.	4.6	562
4	Orientation-Dependent Oxygen Evolution Activities of Rutile IrO₂ and RuO₂. Journal of Physical Chemistry Letters, 2014, 5, 1636-1641.	4.6	466
5	Charge-transfer-energy-dependent oxygen evolution reaction mechanisms for perovskite oxides. Energy and Environmental Science, 2017, 10, 2190-2200.	30.8	401
6	Recent Insights into Manganese Oxides in Catalyzing Oxygen Reduction Kinetics. ACS Catalysis, 2015, 5, 6021-6031.	11.2	369
7	Structural Changes of Cobalt-Based Perovskites upon Water Oxidation Investigated by EXAFS. Journal of Physical Chemistry C, 2013, 117, 8628-8635.	3.1	292
8	pH dependence of OER activity of oxides: Current and future perspectives. Catalysis Today, 2016, 262, 2-10.	4.4	288
9	Towards identifying the active sites on RuO₂(110) in catalyzing oxygen evolution. Energy and Environmental Science, 2017, 10, 2626-2637.	30.8	278
10	Orientation-Dependent Oxygen Evolution on RuO₂ without Lattice Exchange. ACS Energy Letters, 2017, 2, 876-881.	17.4	251
11	La_{0.8}Sr_{0.2}MnO_{3âˆ’Î´} Decorated with Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3âˆ’Î´}: A Bifunctional Surface for Oxygen Electrocatalysis with Enhanced Stability and Activity. Journal of the American Chemical Society, 2014, 136, 5229-5232.	13.7	196
12	Tuning perovskite oxides by strain: Electronic structure, properties, and functions in (electro)catalysis and ferroelectricity. Materials Today, 2019, 31, 100-118.	14.2	169
13	Role of Strain and Conductivity in Oxygen Electrocatalysis on LaCoO₃ Thin Films. Journal of Physical Chemistry Letters, 2015, 6, 487-492.	4.6	152
14	The Role of Ru Redox in pH-Dependent Oxygen Evolution on Rutile Ruthenium Dioxide Surfaces. CheM, 2017, 2, 668-675.	11.7	151
15	Nanoscale structural oscillations in perovskite oxides induced by oxygen evolution. Nature Materials, 2017, 16, 121-126.	27.5	149
16	Oxygen electrocatalysis on (001)-oriented manganese perovskite films: Mn valency and charge transfer at the nanoscale. Energy and Environmental Science, 2013, 6, 1582.	30.8	146
17	Trends in Activity and Dissolution on RuO₂ under Oxygen Evolution Conditions: Particles versus Well-Defined Extended Surfaces. ACS Energy Letters, 2018, 3, 2045-2051.	17.4	144
18	Redox Processes of Manganese Oxide in Catalyzing Oxygen Evolution and Reduction: An <i>in Situ</i> Soft X-ray Absorption Spectroscopy Study. Journal of Physical Chemistry C, 2017, 121, 17682-17692.	3.1	138

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19	Tuning Bifunctional Oxygen Electrocatalysts by Changing the Aâ€Site Rareâ€Earth Element in Perovskite Nickelates. Advanced Functional Materials, 2018, 28, 1803712.	14.9	122
20	Highly Active Epitaxial La_(1â€“<i>x</i>)Sr_{<i>x</i>}MnO₃ Surfaces for the Oxygen Reduction Reaction: Role of Charge Transfer. Journal of Physical Chemistry Letters, 2015, 6, 1435-1440.	4.6	107
21	Iron-Based Perovskites for Catalyzing Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2018, 122, 8445-8454.	3.1	106
22	Insights into Electrochemical Reactions from Ambient Pressure Photoelectron Spectroscopy. Accounts of Chemical Research, 2015, 48, 2976-2983.	15.6	95
23	Tuning proton-coupled electron transfer by crystal orientation for efficient water oxidization on double perovskite oxides. Nature Communications, 2020, 11, 4299.	12.8	93
24	Reactivity of Perovskites with Water: Role of Hydroxylation in Wetting and Implications for Oxygen Electrocatalysis. Journal of Physical Chemistry C, 2015, 119, 18504-18512.	3.1	88
25	Rotating Ringâ€“Disk Electrode Study of Oxygen Evolution at a Perovskite Surface: Correlating Activity to Manganese Concentration. Journal of Physical Chemistry C, 2016, 120, 27746-27756.	3.1	85
26	Water Reactivity on the LaCoO₃ (001) Surface: An Ambient Pressure X-ray Photoelectron Spectroscopy Study. Journal of Physical Chemistry C, 2014, 118, 19733-19741.	3.1	84
27	In Situ Spectroscopy and Mechanistic Insights into CO Oxidation on Transition-Metal-Substituted Ceria Nanoparticles. ACS Catalysis, 2017, 7, 6843-6857.	11.2	78
28	Tuning the Electronic Structure of LaNiO₃ through Alloying with Strontium to Enhance Oxygen Evolution Activity. Advanced Science, 2019, 6, 1901073.	11.2	76
29	Thickness-Dependent Photoelectrochemical Water Splitting on Ultrathin LaFeO₃ Films Grown on Nb:SrTiO₃. Journal of Physical Chemistry Letters, 2015, 6, 977-985.	4.6	75
30	Nanoparticle SERS substrates with 3D Raman-active volumes. Chemical Science, 2011, 2, 1435.	7.4	68
31	Aqueous phase catalytic and electrocatalytic hydrogenation of phenol and benzaldehyde over platinum group metals. Journal of Catalysis, 2020, 382, 372-384.	6.2	68
32	Strain Effect on Oxygen Evolution Reaction Activity of Epitaxial NdNiO₃ Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 12941-12947.	8.0	67
33	Influence of LaFeO₃ Surface Termination on Water Reactivity. Journal of Physical Chemistry Letters, 2017, 8, 1038-1043.	4.6	60
34	Soft-template-carbonization route to highly textured mesoporous carbonâ€“TiO₂ inverse opals for efficient photocatalytic and photoelectrochemical applications. Physical Chemistry Chemical Physics, 2014, 16, 9023-9030.	2.8	56
35	Probing LaMO₃ Metal and Oxygen Partial Density of States Using X-ray Emission, Absorption, and Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 2063-2072.	3.1	56
36	Probing the Surface of Platinum during the Hydrogen Evolution Reaction in Alkaline Electrolyte. Journal of Physical Chemistry B, 2018, 122, 864-870.	2.6	50

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37	Dynamic Lattice Oxygen Participation on Perovskite LaNiO₃ during Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2020, 124, 15386-15390.	3.1	49
38	Surface Orientation Dependent Water Dissociation on Rutile Ruthenium Dioxide. Journal of Physical Chemistry C, 2018, 122, 17802-17811.	3.1	44
39	The effect of oxygen vacancies on water wettability of transition metal based SrTiO₃ and rare-earth based Lu₂O₃. RSC Advances, 2016, 6, 109234-109240.	3.6	40
40	Hydrogen Bonding Enhances the Electrochemical Hydrogenation of Benzaldehyde in the Aqueous Phase. Angewandte Chemie - International Edition, 2021, 60, 290-296.	13.8	40
41	Decreasing the Hydroxylation Affinity of La_{1â€“<i>x</i>}Sr_{<i>x</i>}MnO₃ Perovskites To Promote Oxygen Reduction Electrocatalysis. Chemistry of Materials, 2017, 29, 9990-9997.	6.7	37
42	Screening Nanopyramid Assemblies to Optimize Surface Enhanced Raman Scattering. Journal of Physical Chemistry Letters, 2010, 1, 1046-1050.	4.6	34
43	Hole-induced electronic and optical transitions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>âˆ’</mml:mo><mml:mi>x</mml:mi></mml:mrow></m mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi>Fe</mml:mi><mml:msub><mml:mi	2.4	33
44	Understanding the Electronic Structure Evolution of Epitaxial LaNi_{1â€“<i>x</i>}Fe_{<i>x</i>}O₃ Thin Films for Water Oxidation. Nano Letters, 2021, 21, 8324-8331.	9.1	31
45	Near-Ambient Pressure XPS of High-Temperature Surface Chemistry in Sr2Co2O5 Thin Films. Topics in Catalysis, 2016, 59, 574-582.	2.8	29
46	Stabilizing the Meniscus for Operando Characterization of Platinum During the Electrolyte-Consuming Alkaline Oxygen Evolution Reaction. Topics in Catalysis, 2018, 61, 2152-2160.	2.8	28
47	Linking surface chemistry to photovoltage in Sr-substituted LaFeO₃ for water oxidation. Journal of Materials Chemistry A, 2018, 6, 22170-22178.	10.3	27
48	Speciation and Electronic Structure of La1âˆ’xSrxCoO3âˆ’Î´ During Oxygen Electrolysis. Topics in Catalysis, 2018, 61, 2161-2174.	2.8	25
49	Correlation of nanoscale behaviour of forces and macroscale surface wettability. Nanoscale, 2016, 8, 15597-15603.	5.6	23
50	Visible Light Photo-oxidation in Au Nanoparticle Sensitized SrTiO₃:Nb Photoanode. Journal of Physical Chemistry C, 2013, 117, 15532-15539.	3.1	22
51	Rate enhancement by Cu in Ni_xCu_{1âˆ’x}/ZrO₂ bimetallic catalysts for hydrodeoxygenation of stearic acid. Catalysis Science and Technology, 2019, 9, 2620-2629.	4.1	22
52	Reversibility of Ferri-/Ferrocyanide Redox during Operando Soft X-ray Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 18903-18910.	3.1	20
53	The Effect of Surface Reconstruction on the Oxygen Reduction Reaction Properties of LaMnO₃. Journal of Physical Chemistry C, 2019, 123, 11621-11627.	3.1	19
54	Band alignment and electrocatalytic activity at the <i>p</i>-<i>n</i> La0.88Sr0.12FeO3/SrTiO3(001) heterojunction. Applied Physics Letters, 2018, 112, .	3.3	18

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55	Optimizing Oxygen Reduction Catalyst Morphologies from First Principles. Journal of Physical Chemistry C, 2015, 119, 16804-16810.	3.1	16
56	Understanding the Role of Surface Heterogeneities in Electrosynthesis Reactions. IScience, 2020, 23, 101814.	4.1	16
57	Impact of Srâ€Incorporation on Cr Oxidation and Water Dissociation in La_{(1â€"}<i>_x</i>₎Sr<i>_x</i>CrO₃. Advanced Materials Interfaces, 2018, 5, 1701363.	3.7	13
58	Hydrogen Bonding Enhances the Electrochemical Hydrogenation of Benzaldehyde in the Aqueous Phase. Angewandte Chemie, 2021, 133, 294-300.	2.0	12
59	Epitaxial oxide thin films for oxygen electrocatalysis: A tutorial review. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 010801.	2.1	12
60	Impact of Ti Incorporation on Hydroxylation and Wetting of Fe₃O₄. Journal of Physical Chemistry C, 2017, 121, 19288-19295.	3.1	10
61	Probing adsorbates on La1âˆ'x Sr x NiO3âˆ'Î´ surfaces under humid conditions: implications for the oxygen evolution reaction. Journal Physics D: Applied Physics, 2021, 54, 274003.	2.8	9
62	Effect of capping layers on the near-surface region of SrVO3 films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	9
63	Breaking OER and CER scaling relations via strain and its relaxation in RuO2 (101). Materials Today Energy, 2022, 28, 101087.	4.7	9
64	Chemical and electronic structure analysis of a SrTiO3 (001)/p-Ge (001) hydrogen evolution photocathode. MRS Communications, 2018, 8, 446-452.	1.8	8
65	Structure, Magnetism, and the Interaction of Water with Ti-Doped Fe3O4 Surfaces. Langmuir, 2019, 35, 13872-13879.	3.5	6
66	Influence of strain on SrFeO3-Î´ oxidation, reduction, and water dissociation: Insights from ambient pressure X-ray photoelectron spectroscopy. Applied Surface Science, 2020, 527, 146919.	6.1	6
67	Contribution of the Subâ€Surface to Electrocatalytic Activity in Atomically Precise La_{0.7}Sr_{0.3}MnO₃ Heterostructures. Small, 2021, 17, e2103632.	10.0	4
68	Understanding Surface Reactivity of Amorphous Transition-Metal-Incorporated Aluminum Oxide Thin Films. Journal of Physical Chemistry C, 2019, 123, 27048-27054.	3.1	3
69	X-ray and electron spectroscopy of (photo)electrocatalysts: Understanding activity through electronic structure and adsorbate coverage. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	3
70	The Influence of Transitional Metal Dopants on Reducing Chlorine Evolution during the Electrolysis of Raw Seawater. Applied Sciences (Switzerland), 2021, 11, 11911.	2.5	3
71	Understanding methanol dissociative adsorption and oxidation on amorphous oxide films. Faraday Discussions, 2022, 236, 58-70.	3.2	2
72	Probing the Solid/Gas and Solid/Liquid Interface of Electrocatalysts with Ambient-Pressure X-ray Photoelectron Spectroscopy. Synchrotron Radiation News, 2020, 33, 13-16.	0.8	1

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73	(Invited) Probing the Electronic Structure of Oxide Electrocatalysts and the Formation of Reaction Intermediates. ECS Meeting Abstracts, 2021, MA2021-01, 1972-1972.	0.0	0
74	Speciation and Electronic Structure of La1 -XSrxCoO3 -Î” during Oxygen Evolution. ECS Meeting Abstracts, 2018, , .	0.0	0
75	(Invited) Electrocatalytic Reduction of Nitrate: Insight from Manipulating Adsorbate Affinity. ECS Meeting Abstracts, 2022, MA2022-01, 1797-1797.	0.0	0
76	(Digital Presentation) Role of Electronic Structure on Nitrate Reduction to Ammonium: A Periodic Journey. ECS Meeting Abstracts, 2022, MA2022-01, 1801-1801.	0.0	0