

# Michael D Biegalski

## List of Publications by Year in descending order

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52  
papers

4,157  
citations

126907

33  
h-index

168389

53  
g-index

55  
all docs

55  
docs citations

55  
times ranked

6209  
citing authors

#	ARTICLE	IF	CITATIONS
1	Orientation-Dependent Oxygen Evolution Activities of Rutile IrO <sub>2</sub> and RuO <sub>2</sub> . Journal of Physical Chemistry Letters, 2014, 5, 1636-1641.	4.6	466
2	Reversible redox reactions in an epitaxially stabilized SrCoOx oxygen sponge. Nature Materials, 2013, 12, 1057-1063.	27.5	349
3	Surface strontium enrichment on highly active perovskites for oxygen electrocatalysis in solid oxide fuel cells. Energy and Environmental Science, 2012, 5, 6081.	30.8	307
4	Probing oxygen vacancy concentration and homogeneity in solid-oxide fuel-cell cathode materials on the subunit-cell level. Nature Materials, 2012, 11, 888-894.	27.5	282
5	Exploiting dimensionality and defect mitigation to create tunable microwave dielectrics. Nature, 2013, 502, 532-536.	27.8	204
6	Enhanced oxygen reduction activity on surface-decorated perovskite thin films for solid oxide fuel cells. Energy and Environmental Science, 2011, 4, 3689.	30.8	200
7	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
8	Effect of epitaxial strain on ferroelectric polarization in multiferroic BiFeO <sub>3</sub> films. Applied Physics Letters, 2008, 92, .	3.3	137
9	Oxygen Reduction Kinetics Enhancement on a Heterostructured Oxide Surface for Solid Oxide Fuel Cells. Journal of Physical Chemistry Letters, 2010, 1, 3149-3155.	4.6	136
10	Catalytic Activity Enhancement for Oxygen Reduction on Epitaxial Perovskite Thin Films for Solid Oxide Fuel Cells. Angewandte Chemie - International Edition, 2010, 49, 5344-5347.	13.8	133
11	Interplay of Octahedral Tilts and Polar Order in BiFeO <sub>3</sub> Films. Advanced Materials, 2013, 25, 2497-2504.	21.0	101
12	In Situ Ambient Pressure X-ray Photoelectron Spectroscopy of Cobalt Perovskite Surfaces under Cathodic Polarization at High Temperatures. Journal of Physical Chemistry C, 2013, 117, 16087-16094.	3.1	89
13	<i>In Situ</i> Observation of Oxygen Vacancy Dynamics and Ordering in the Epitaxial LaCoO <sub>3</sub> System. ACS Nano, 2017, 11, 6942-6949.	14.6	89
14	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
15	Water Reactivity on the LaCoO <sub>3</sub> (001) Surface: An Ambient Pressure X-ray Photoelectron Spectroscopy Study. Journal of Physical Chemistry C, 2014, 118, 19733-19741.	3.1	84
16	Reversible Compositional Control of Oxide Surfaces by Electrochemical Potentials. Journal of Physical Chemistry Letters, 2012, 3, 40-44.	4.6	78
17	Towards 3D Mapping of BO <sub>6</sub> Octahedron Rotations at Perovskite Heterointerfaces, Unit Cell by Unit Cell. ACS Nano, 2015, 9, 8412-8419.	14.6	78
18	Thickness-Dependent Photoelectrochemical Water Splitting on Ultrathin LaFeO <sub>3</sub> Films Grown on Nb:SrTiO <sub>3</sub> . Journal of Physical Chemistry Letters, 2015, 6, 977-985.	4.6	75

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19	Anomalous Interface and Surface Strontium Segregation in $(\text{La}_{1-x}\text{Sr}_x)_2\text{CoO}_4/\text{La}_{1-x}\text{Sr}_x$ Heterostructured Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1027-1034.	10.3	73
20	Dimensionality Controlled Octahedral Symmetry-Mismatch and Functionalities in Epitaxial $\text{LaCoO}_3/\text{SrTiO}_3$ Heterostructures. <i>Nano Letters</i> , 2015, 15, 4677-4684.	9.1	71
21	Oxygen surface exchange kinetics and stability of $(\text{La,Sr})_2\text{CoO}_4/\text{La}_x\text{Sr}_{1-x}\text{MO}_3$ ( $M = \text{Co}$ ) thin films. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2144-2157.	10.3	10,784
22	Tuning the Spin State in $\text{LaCoO}_3$ Thin Films for Enhanced High-Temperature Oxygen Electro catalysis. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2493-2499.	4.6	64
23	Large ferroelectric polarization in antiferromagnetic $\text{BiFeO}_3$ epitaxial films. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	56
24	Phase-Controlled Electrochemical Activity of Epitaxial Mg-Spinel Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 28438-28443.	8.0	56
25	Mechanical Control of Electroresistive Switching. <i>Nano Letters</i> , 2013, 13, 4068-4074.	9.1	55
26	In Situ Studies of the Temperature-Dependent Surface Structure and Chemistry of Single-Crystalline (001)-Oriented $\text{La}_{0.8}\text{Sr}_{0.2}\text{CoO}_3$ Perovskite Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1512-1518.	4.6	52
27	Oxygen Electro catalysis on Epitaxial $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_3$ Perovskite Thin Films for Solid Oxide Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2012, 159, F219-F225.	2.9	51
28	Strain Influence on the Oxygen Electro catalysis of the (100)-Oriented Epitaxial $\text{La}_2\text{NiO}_4$ Thin Films at Elevated Temperatures. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18789-18795.	3.1	48
29	Temperature-Driven Structural Phase Transition in Tetragonal-Like $\text{BiFeO}_3$ . <i>Applied Physics Express</i> , 2011, 4, 095801.	2.4	46
30	Revealing the atomic structure and strontium distribution in nanometer-thick $\text{La}_{0.8}\text{Sr}_{0.2}\text{CoO}_3$ grown on (001)-oriented $\text{SrTiO}_3$ . <i>Energy and Environmental Science</i> , 2014, 7, 1166.	30.8	45
31	Impact of symmetry on the ferroelectric properties of $\text{CaTiO}_3$ thin films. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	42
32	Effect of stoichiometry on the dielectric properties and soft mode behavior of strained epitaxial $\text{SrTiO}_3$ thin films on $\text{DyScO}_3$ substrates. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	39
33	Strontium influence on the oxygen electro catalysis of $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ (0.0 $\leq x \leq$ 1.0) thin films. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6480-6487.	10.3	37
34	Enhanced Oxygen Surface Exchange Kinetics and Stability on Epitaxial $\text{La}_{0.8}\text{Sr}_{0.2}\text{CoO}_3$ Thin Films by $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ Decoration. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14326-14334.	3.1	34
35	Unleashing Strain Induced Ferroelectricity in Complex Oxide Thin Films via Precise Stoichiometry Control. <i>Advanced Functional Materials</i> , 2016, 26, 7271-7279.	14.9	30
36	Surface Control of Epitaxial Manganite Films via Oxygen Pressure. <i>ACS Nano</i> , 2015, 9, 4316-4327.	14.6	27

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37	Spatially Resolved Mapping of Oxygen Reduction/Evolution Reaction on Solid-Oxide Fuel Cell Cathodes with Sub-10 nm Resolution. ACS Nano, 2013, 7, 3808-3814.	14.6	25
38	Origin of Enhanced Chemical Capacitance in $\text{La}_{0.8}\text{Sr}_{0.2}\text{CoO}_{3-\delta}$ Thin Film Electrodes. Journal of the Electrochemical Society, 2013, 160, F931-F942.	2.9	20
39	Interrelation between Structure "Magnetic Properties in $\text{La}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$ . Advanced Materials Interfaces, 2014, 1, 1400203.	3.7	20
40	Polarization rotation transitions in anisotropically strained SrTiO <sub>3</sub> thin films. Applied Physics Letters, 2008, 92, 192902.	3.3	19
41	Oxygen Control of Atomic Structure and Physical Properties of SrRuO <sub>3</sub> Surfaces. ACS Nano, 2013, 7, 4403-4413.	14.6	19
42	Nanoscale Probing of Voltage Activated Oxygen Reduction/Evolution Reactions in Nanopatterned ( $\text{La}_{1-x}\text{Sr}_x$ ) $\text{CoO}_{3-\delta}$ Cathodes. Advanced Energy Materials, 2013, 3, 788-797.	19.5	19
43	Compositional tuning of the strain-induced structural phase transition and of ferromagnetism in $\text{Bi}_{1-x}\text{Ba}_x\text{FeO}_{3-\delta}$ . Journal of Materials Research, 2011, 26, 1326-1331.	2.6	17
44	Thickness dependence of exchange coupling in (111)-oriented perovskite oxide superlattices. Physical Review B, 2016, 93, .	3.2	16
45	Growth Mode Transition in Complex Oxide Heteroepitaxy: Atomically Resolved Studies. Crystal Growth and Design, 2016, 16, 2708-2716.	3.0	13
46	Correlated domain structure in perovskite oxide superlattices exhibiting spin-flop coupling. Physical Review B, 2011, 83, .	3.2	12
47	Room-temperature electro-optic properties of strained SrTiO <sub>3</sub> films grown on DyScO <sub>3</sub> . Journal of Applied Physics, 2009, 105, .	2.5	10
48	Smooth cubic commensurate oxides on gallium nitride. Journal of Applied Physics, 2014, 115, .	2.5	9
49	Controlled mechanical modification of manganite surface with nanoscale resolution. Nanotechnology, 2014, 25, 475302.	2.6	8
50	Strain relaxation defects in perovskite oxide superlattices. Journal of Materials Research, 2012, 27, 1436-1444.	2.6	6
51	Antisite defects in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ and $\text{La}_{0.7}\text{Sr}_{0.3}\text{FeO}_3$ . Applied Physics Letters, 2013, 102, 151911.	3.3	6
52	In Situ Ambient Pressure X-ray Photoelectron Spectroscopy of Epitaxial Strontium Substituted Lanthanum Cobalt Oxides Near Operating Conditions Under Applied Potentials. ECS Meeting Abstracts, 2012, .	0.0	0