

# Jaka Sunarso

## List of Publications by Citations

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162  
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508  
ext. papers

37,603  
ext. citations

9.7  
avg, IF

7.84  
L-index

#	Paper	IF	Citations
486	A high-performance cathode for the next generation of solid-oxide fuel cells. <i>Nature</i> , <b>2004</b> , 431, 170-3	50.4	2425
485	Equilibrium and kinetic studies in adsorption of heavy metals using biosorbent: a summary of recent studies. <i>Journal of Hazardous Materials</i> , <b>2009</b> , 162, 616-45	12.8	1124
484	Mixed ionic-electronic conducting (MIEC) ceramic-based membranes for oxygen separation. <i>Journal of Membrane Science</i> , <b>2008</b> , 320, 13-41	9.6	896
483	Investigation of the permeation behavior and stability of a Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> oxygen membrane. <i>Journal of Membrane Science</i> , <b>2000</b> , 172, 177-188	9.6	862
482	Nonstoichiometric Oxides as Low-Cost and Highly-Efficient Oxygen Reduction/Evolution Catalysts for Low-Temperature Electrochemical Devices. <i>Chemical Reviews</i> , <b>2015</b> , 115, 9869-921	68.1	631
481	Enhancement of Pt and Pt-alloy fuel cell catalyst activity and durability via nitrogen-modified carbon supports. <i>Energy and Environmental Science</i> , <b>2010</b> , 3, 1437	35.4	521
480	A thermally self-sustained micro solid-oxide fuel-cell stack with high power density. <i>Nature</i> , <b>2005</b> , 435, 795-8	50.4	517
479	Performance of activated carbon and bentonite for adsorption of amoxicillin from wastewater: mechanisms, isotherms and kinetics. <i>Water Research</i> , <b>2009</b> , 43, 2419-30	12.5	482
478	Enhancing Electrocatalytic Activity of Perovskite Oxides by Tuning Cation Deficiency for Oxygen Reduction and Evolution Reactions. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 1691-1697	9.6	443
477	Recent Progress in Metal-Organic Frameworks for Applications in Electrocatalytic and Photocatalytic Water Splitting. <i>Advanced Science</i> , <b>2017</b> , 4, 1600371	13.6	440
476	Current status and development of membranes for CO <sub>2</sub> /CH <sub>4</sub> separation: A review. <i>International Journal of Greenhouse Gas Control</i> , <b>2013</b> , 12, 84-107	4.2	428
475	Synthesis, characterization and evaluation of cation-ordered LnBaCo <sub>2</sub> O <sub>5+<math>\delta</math></sub> based materials of oxygen permeation membranes and cathodes of SOFCs. <i>Acta Materialia</i> , <b>2008</b> , 56, 4876-4889	8.4	391
474	Progress in understanding and development of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> based cathodes for intermediate-temperature solid-oxide fuel cells: A review. <i>Journal of Power Sources</i> , <b>2009</b> , 192, 231-246	8.9	367
473	SrNb <sub>0.1</sub> Co <sub>0.7</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> perovskite as a next-generation electrocatalyst for oxygen evolution in alkaline solution. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 3897-901	16.4	345
472	Studies on potential applications of biomass for the separation of heavy metals from water and wastewater. <i>Biochemical Engineering Journal</i> , <b>2009</b> , 44, 19-41	4.2	317
471	A Perovskite Electrocatalyst for Efficient Hydrogen Evolution Reaction. <i>Advanced Materials</i> , <b>2016</b> , 28, 6442-8	24	315
470	Advanced synthesis of materials for intermediate-temperature solid oxide fuel cells. <i>Progress in Materials Science</i> , <b>2012</b> , 57, 804-874	42.2	306

469	Recent Progress on Biosorption of Heavy Metals From Liquids Using Low Cost Biosorbents: Characterization, Biosorption Parameters and Mechanism Studies. <i>Clean - Soil, Air, Water</i> , <b>2008</b> , 36, 937-962	16	292
468	Surface controlled generation of reactive radicals from persulfate by carbocatalysis on nanodiamonds. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 194, 7-15	21.8	277
467	Recent Advances and Prospective in Ruthenium-Based Materials for Electrochemical Water Splitting. <i>ACS Catalysis</i> , <b>2019</b> , 9, 9973-10011	13.1	269
466	A Perovskite Nanorod as Bifunctional Electrocatalyst for Overall Water Splitting. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1602122	21.8	262
465	Advances in non-enzymatic glucose sensors based on metal oxides. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 7333-7349	7.3	252
464	The use of nitrogen-doped graphene supporting Pt nanoparticles as a catalyst for methanol electrocatalytic oxidation. <i>Carbon</i> , <b>2013</b> , 52, 181-192	10.4	242
463	Molten salt synthesis of nitrogen-doped carbon with hierarchical pore structures for use as high-performance electrodes in supercapacitors. <i>Carbon</i> , <b>2015</b> , 93, 48-58	10.4	240
462	Ba effect in doped Sr(Co <sub>0.8</sub> Fe <sub>0.2</sub> )O <sub>3-<math>\delta</math></sub> on the phase structure and oxygen permeation properties of the dense ceramic membranes. <i>Separation and Purification Technology</i> , <b>2001</b> , 25, 419-429	8.3	238
461	Enhancing Electrocatalytic Activity for Hydrogen Evolution by Strongly Coupled Molybdenum [email protected] Carbon Porous Nano-Octahedrons. <i>ACS Catalysis</i> , <b>2017</b> , 7, 3540-3547	13.1	235
460	Oxygen Reduction Reaction Activity of La-Based Perovskite Oxides in Alkaline Medium: A Thin-Film Rotating Ring-Disk Electrode Study. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 5827-5834	3.8	228
459	Performance of a mixed-conducting ceramic membrane reactor with high oxygen permeability for methane conversion. <i>Journal of Membrane Science</i> , <b>2001</b> , 183, 181-192	9.6	209
458	A High-Performance Electrocatalyst for Oxygen Evolution Reaction: LiCo <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>2</sub> . <i>Advanced Materials</i> , <b>2015</b> , 27, 7150-5	24	205
457	Perovskite oxides applications in high temperature oxygen separation, solid oxide fuel cell and membrane reactor: A review. <i>Progress in Energy and Combustion Science</i> , <b>2017</b> , 61, 57-77	33.6	202
456	Zirconium doping effect on the performance of proton-conducting BaZr <sub>y</sub> Ce <sub>0.8-y</sub> Y <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> (0.0 $\leq$ y $\leq$ 0.8) for fuel cell applications. <i>Journal of Power Sources</i> , <b>2009</b> , 193, 400-407	8.9	202
455	Re-evaluation of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> perovskite as oxygen semi-permeable membrane. <i>Journal of Membrane Science</i> , <b>2007</b> , 291, 148-156	9.6	202
454	Phosphorus-Doped Perovskite Oxide as Highly Efficient Water Oxidation Electrocatalyst in Alkaline Solution. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5862-5872	15.6	199
453	Perovskite/Carbon Composites: Applications in Oxygen Electrocatalysis. <i>Small</i> , <b>2017</b> , 13, 1603793	11	197
452	Co-doping Strategy for Developing Perovskite Oxides as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. <i>Advanced Science</i> , <b>2016</b> , 3, 1500187	13.6	196

451	Mixed Conducting Perovskite Materials as Superior Catalysts for Fast Aqueous-Phase Advanced Oxidation: A Mechanistic Study. <i>ACS Catalysis</i> , <b>2017</b> , 7, 388-397	13.1	186
450	Evaluation of A-site cation-deficient $(\text{Ba}_{0.5}\text{Sr}_{0.5})_{1-x}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$ perovskite as a solid-oxide fuel cell cathode. <i>Journal of Power Sources</i> , <b>2008</b> , 182, 24-31	8.9	186
449	Advances in Cathode Materials for Solid Oxide Fuel Cells: Complex Oxides without Alkaline Earth Metal Elements. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500537	21.8	169
448	Recent Advances in Novel Nanostructuring Methods of Perovskite Electrocatalysts for Energy-Related Applications. <i>Small Methods</i> , <b>2018</b> , 2, 1800071	12.8	169
447	Recent Progress on Advanced Materials for Solid-Oxide Fuel Cells Operating Below 500 °C. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700132	24	167
446	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. <i>Nature Communications</i> , <b>2020</b> , 11, 2002	17.4	166
445	Promotion of Oxygen Reduction by Exsolved Silver Nanoparticles on a Perovskite Scaffold for Low-Temperature Solid Oxide Fuel Cells. <i>Nano Letters</i> , <b>2016</b> , 16, 512-8	11.5	164
444	An Amorphous Nickel-Iron-Based Electrocatalyst with Unusual Local Structures for Ultrafast Oxygen Evolution Reaction. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900883	24	161
443	Assessment of $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-x}$ ( $y=0.01-1.0$ ) for prospective application as cathode for IT-SOFCs or oxygen permeating membrane. <i>Electrochimica Acta</i> , <b>2007</b> , 52, 7343-7351	6.7	160
442	La-doped $\text{BaFeO}_{3-x}$ perovskite as a cobalt-free oxygen reduction electrode for solid oxide fuel cells with oxygen-ion conducting electrolyte. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 15071		156
441	Fundamental Understanding of Photocurrent Hysteresis in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803017	21.8	148
440	Non-precious-metal catalysts for alkaline water electrolysis: operando characterizations, theoretical calculations, and recent advances. <i>Chemical Society Reviews</i> , <b>2020</b> , 49, 9154-9196	58.5	147
439	A niobium and tantalum co-doped perovskite cathode for solid oxide fuel cells operating below 500 °C. <i>Nature Communications</i> , <b>2017</b> , 8, 13990	17.4	144
438	Enhancing Bi-functional Electrocatalytic Activity of Perovskite by Temperature Shock: A Case Study of $\text{LaNiO}_3$ . <i>Journal of Physical Chemistry Letters</i> , <b>2013</b> , 4, 2982-2988	6.4	142
437	Synthesis, oxygen permeation study and membrane performance of a $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$ oxygen-permeable dense ceramic reactor for partial oxidation of methane to syngas. <i>Separation and Purification Technology</i> , <b>2001</b> , 25, 97-116	8.3	141
436	Evaluation of $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$ as a potential cathode for an anode-supported proton-conducting solid-oxide fuel cell. <i>Journal of Power Sources</i> , <b>2008</b> , 180, 15-22	8.9	138
435	Perovskite Oxide Based Electrodes for High-Performance Photoelectrochemical Water Splitting. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 136-152	16.4	135
434	Carbon and non-carbon support materials for platinum-based catalysts in fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 7823-7854	6.7	134

433	Two orders of magnitude enhancement in oxygen evolution reactivity on amorphous BaSrCoFeO nanofilms with tunable oxidation state. <i>Science Advances</i> , <b>2017</b> , 3, e1603206	14.3	134
432	Anion Doping: A New Strategy for Developing High-Performance Perovskite-Type Cathode Materials of Solid Oxide Fuel Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700242	21.8	132
431	Water Splitting with an Enhanced Bifunctional Double Perovskite. <i>ACS Catalysis</i> , <b>2018</b> , 8, 364-371	13.1	132
430	Active Centers of Catalysts for Higher Alcohol Synthesis from Syngas: A Review. <i>ACS Catalysis</i> , <b>2018</b> , 8, 7025-7050	13.1	129
429	Surface exchange and bulk diffusion properties of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub> mixed conductor. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 6948-6956	6.7	124
428	Double Perovskites in Catalysis, Electrocatalysis, and Photo(electro)catalysis. <i>Trends in Chemistry</i> , <b>2019</b> , 1, 410-424	14.8	123
427	A highly active perovskite electrode for the oxygen reduction reaction below 600 °C. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 14036-40	16.4	123
426	Research progress and materials selection guidelines on mixed conducting perovskite-type ceramic membranes for oxygen production. <i>RSC Advances</i> , <b>2011</b> , 1, 1661	3.7	123
425	High performance cobalt-free perovskite cathode for intermediate temperature solid oxide fuel cells. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 9619		123
424	Designing CO-resistant oxygen-selective mixed ionic-electronic conducting membranes: guidelines, recent advances, and forward directions. <i>Chemical Society Reviews</i> , <b>2017</b> , 46, 2941-3005	58.5	119
423	Unusual synergistic effect in layered Ruddlesden-Popper oxide enables ultrafast hydrogen evolution. <i>Nature Communications</i> , <b>2019</b> , 10, 149	17.4	116
422	A novel efficient oxide electrode for electrocatalytic oxygen reduction at 400-600 degrees C. <i>Chemical Communications</i> , <b>2008</b> , 5791-3	5.8	115
421	Efficient stabilization of cubic perovskite SrCoO <sub>3</sub> by B-site low concentration scandium doping combined with sol-gel synthesis. <i>Journal of Alloys and Compounds</i> , <b>2008</b> , 455, 465-470	5.7	114
420	Advances in three-dimensional graphene-based materials: configurations, preparation and application in secondary metal (Li, Na, K, Mg, Al)-ion batteries. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2030-2053	35.4	113
419	Oxygen permeation behavior of La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub> hollow fibre membranes with highly concentrated CO <sub>2</sub> exposure. <i>Journal of Membrane Science</i> , <b>2012</b> , 389, 216-222	9.6	112
418	Decontamination of hazardous substances from solid matrices and liquids using supercritical fluids extraction: a review. <i>Journal of Hazardous Materials</i> , <b>2009</b> , 161, 1-20	12.8	112
417	Synthesis of nanocrystalline conducting composite oxides based on a non-ion selective combined complexing process for functional applications. <i>Journal of Alloys and Compounds</i> , <b>2006</b> , 426, 368-374	5.7	109
416	Novel B-site ordered double perovskite Ba <sub>2</sub> Bi <sub>0.1</sub> Sc <sub>0.2</sub> Co <sub>1.7</sub> O <sub>6</sub> for highly efficient oxygen reduction reaction. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 872-875	35.4	108

4 <sup>15</sup>	Systematic Study of Oxygen Evolution Activity and Stability on LaSr FeO Perovskite Electrocatalysts in Alkaline Media. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 11715-11721	9.5	107
4 <sup>14</sup>	Ball milling: a green mechanochemical approach for synthesis of nitrogen doped carbon nanoparticles. <i>Nanoscale</i> , <b>2013</b> , 5, 7970-6	7.7	104
4 <sup>13</sup>	Systematic investigation on new SrCo <sub>1-x</sub> Nb <sub>y</sub> O <sub>3-δ</sub> ceramic membranes with high oxygen semi-permeability. <i>Journal of Membrane Science</i> , <b>2008</b> , 323, 436-443	9.6	103
4 <sup>12</sup>	Boosting Oxygen Reduction Reaction Activity of Palladium by Stabilizing Its Unusual Oxidation States in Perovskite. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 3048-3054	9.6	102
4 <sup>11</sup>	Barium- and strontium-enriched (Ba <sub>0.5</sub> Sr <sub>0.5</sub> ) <sub>1+x</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-δ</sub> oxides as high-performance cathodes for intermediate-temperature solid-oxide fuel cells. <i>Acta Materialia</i> , <b>2008</b> , 56, 2687-2698	8.4	101
4 <sup>10</sup>	SrCo(0.9)Ti(0.1)O(3-δ) As a New Electrocatalyst for the Oxygen Evolution Reaction in Alkaline Electrolyte with Stable Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 17663-70	9.5	97
4 <sup>09</sup>	Novel SrSc <sub>0.2</sub> Co <sub>0.8</sub> O <sub>3-δ</sub> as a cathode material for low temperature solid-oxide fuel cell. <i>Electrochemistry Communications</i> , <b>2008</b> , 10, 1647-1651	5.1	97
4 <sup>08</sup>	Thermal-expansion offset for high-performance fuel cell cathodes. <i>Nature</i> , <b>2021</b> , 591, 246-251	50.4	97
4 <sup>07</sup>	Progress and Prospects in Symmetrical Solid Oxide Fuel Cells with Two Identical Electrodes. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500188	21.8	96
4 <sup>06</sup>	Properties and performance of A-site deficient (Ba <sub>0.5</sub> Sr <sub>0.5</sub> ) <sub>1-x</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-δ</sub> for oxygen permeating membrane. <i>Journal of Membrane Science</i> , <b>2007</b> , 306, 318-328	9.6	96
4 <sup>05</sup>	Rationally Designed Hierarchically Structured Tungsten Nitride and Nitrogen-Rich Graphene-Like Carbon Nanocomposite as Efficient Hydrogen Evolution Electrocatalyst. <i>Advanced Science</i> , <b>2018</b> , 5, 1700603	13.6	95
4 <sup>04</sup>	BaNb <sub>0.05</sub> Fe <sub>0.95</sub> O <sub>3-δ</sub> as a new oxygen reduction electrocatalyst for intermediate temperature solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 9781	13	93
4 <sup>03</sup>	Cobalt Oxide and Cobalt-Graphitic Carbon Core-Shell Based Catalysts with Remarkably High Oxygen Reduction Reaction Activity. <i>Advanced Science</i> , <b>2016</b> , 3, 1600060	13.6	92
4 <sup>02</sup>	Scalable synthesis of self-standing sulfur-doped flexible graphene films as recyclable anode materials for low-cost sodium-ion batteries. <i>Carbon</i> , <b>2016</b> , 107, 67-73	10.4	89
4 <sup>01</sup>	Facile synthesis of nitrogen-doped carbon nanotubes encapsulating nickel cobalt alloys 3D networks for oxygen evolution reaction in an alkaline solution. <i>Journal of Power Sources</i> , <b>2017</b> , 338, 26-33	8.9	89
4 <sup>00</sup>	Activated carbon from durian shell: Preparation and characterization. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , <b>2009</b> , 40, 457-462	5.3	87
399	Trapping sulfur in hierarchically porous, hollow indented carbon spheres: a high-performance cathode for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 9526-9535	13	87
398	Recent Advances in Metal-Organic Framework Derivatives as Oxygen Catalysts for Zinc-Air Batteries. <i>Batteries and Supercaps</i> , <b>2019</b> , 2, 272-289	5.6	87

397	A Universal Strategy to Design Superior Water-Splitting Electrocatalysts Based on Fast In Situ Reconstruction of Amorphous Nanofilm Precursors. <i>Advanced Materials</i> , <b>2018</b> , 30, e1804333	24	86
396	Synthesis and oxygen permeation study of novel perovskite-type BaBixCo0.2Fe0.8-xO3 ceramic membranes. <i>Journal of Membrane Science</i> , <b>2000</b> , 164, 167-176	9.6	85
395	A Comparative Study of Oxygen Reduction Reaction on Bi- and La-Doped SrFeO[sub 3] Perovskite Cathodes. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, B132	3.9	83
394	Facile synthesis of a MoO2/Mo2C composite and its application as favorable anode material for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2016</b> , 307, 552-560	8.9	82
393	Systematic evaluation of Co-free LnBaFe2O5+ $\lambda$ (Ln=Lanthanides or Y) oxides towards the application as cathodes for intermediate-temperature solid oxide fuel cells. <i>Electrochimica Acta</i> , <b>2012</b> , 78, 466-474	6.7	80
392	Electrochemical performance of silver-modified Ba0.5Sr0.5Co0.8Fe0.2O3 cathodes prepared via electroless deposition. <i>Electrochimica Acta</i> , <b>2008</b> , 53, 4370-4380	6.7	80
391	High power-density single-chamber fuel cells operated on methane. <i>Journal of Power Sources</i> , <b>2006</b> , 162, 589-596	8.9	80
390	Activity and Stability of Ruddlesden-Popper-Type La(n+1) Ni(n) O(3n+1) (n=1, 2, 3, and $\infty$ ) Electrocatalysts for Oxygen Reduction and Evolution Reactions in Alkaline Media. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 2719-27	4.8	80
389	Towards enhanced energy density of graphene-based supercapacitors: Current status, approaches, and future directions. <i>Journal of Power Sources</i> , <b>2018</b> , 396, 182-206	8.9	79
388	Boosting performance of lanthanide magnetism perovskite for advanced oxidation through lattice doping with catalytically inert element. <i>Chemical Engineering Journal</i> , <b>2019</b> , 355, 721-730	14.7	78
387	An A-site-deficient perovskite offers high activity and stability for low-temperature solid-oxide fuel cells. <i>ChemSusChem</i> , <b>2013</b> , 6, 2249-54	8.3	77
386	Acid Green 25 removal from wastewater by organo-bentonite from Pacitan. <i>Applied Clay Science</i> , <b>2010</b> , 48, 81-86	5.2	77
385	Proton-conducting fuel cells operating on hydrogen, ammonia and hydrazine at intermediate temperatures. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 2637-2642	6.7	77
384	A universal and facile way for the development of superior bifunctional electrocatalysts for oxygen reduction and evolution reactions utilizing the synergistic effect. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 15533-42	4.8	76
383	Enhancing Electrode Performance by Exsolved Nanoparticles: A Superior Cobalt-Free Perovskite Electrocatalyst for Solid Oxide Fuel Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 35308-35314	9.5	76
382	Design of Perovskite Oxides as Anion-Intercalation-Type Electrodes for Supercapacitors: Cation Leaching Effect. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 23774-83	9.5	75
381	Surprisingly high activity for oxygen reduction reaction of selected oxides lacking long oxygen-ion diffusion paths at intermediate temperatures: a case study of cobalt-free BaFeO(3- $\delta$ ) <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 11180-9	9.5	75
380	High performance BaBiScCo hollow fibre membranes for oxygen transport. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2516	35.4	75

379	Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-δ</sub>    LaCoO <sub>3</sub> composite cathode for Sm <sub>0.2</sub> Ce <sub>0.8</sub> O <sub>1.9</sub> -electrolyte based intermediate-temperature solid-oxide fuel cells. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 330-337	8.9	75
378	Structural and oxygen-transport studies of double perovskites PrBa <sub>1-x</sub> Co <sub>2</sub> O <sub>5+δ</sub> (x = 0.00, 0.05, and 0.10) toward their application as superior oxygen reduction electrodes. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 20520-20529	13	73
377	Novel CO <sub>2</sub> -tolerant ion-transporting ceramic membranes with an external short circuit for oxygen separation at intermediate temperatures. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 5257-5264	35.4	73
376	Evaluation of the CO <sub>2</sub> Poisoning Effect on a Highly Active Cathode SrSc <sub>(0.175)</sub> Nb <sub>(0.025)</sub> Co <sub>(0.8)</sub> O <sub>(3-δ)</sub> in the Oxygen Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 3003-11	9.5	71
375	Bifunctionality from Synergy: CoP Nanoparticles Embedded in Amorphous CoO <sub>x</sub> Nanoplates with Heterostructures for Highly Efficient Water Electrolysis. <i>Advanced Science</i> , <b>2018</b> , 5, 1800514	13.6	71
374	A new cathode for solid oxide fuel cells capable of in situ electrochemical regeneration. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 15343		71
373	Ruddlesden-Popper perovskites in electrocatalysis. <i>Materials Horizons</i> , <b>2020</b> , 7, 2519-2565	14.4	71
372	Carbon-based electrocatalysts for sustainable energy applications. <i>Progress in Materials Science</i> , <b>2021</b> , 116, 100717	42.2	71
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255	Emerging Strategies for Developing High-Performance Perovskite-Based Materials for Electrochemical Water Splitting. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 10547-10567	4.1	27
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253	High yield and low-cost ball milling synthesis of nano-flake Si@SiO <sub>2</sub> with small crystalline grains and abundant grain boundaries as a superior anode for Li-ion batteries. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 639, 27-35	5.7	26
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249	Comparative study of doped ceria thin-film electrolytes prepared by wet powder spraying with powder synthesized via two techniques. <i>Journal of Power Sources</i> , <b>2010</b> , 195, 393-401	8.9	26
248	Gasification of torrefied oil palm biomass in a fixed-bed reactor: Effects of gasifying agents on product characteristics. <i>Journal of the Energy Institute</i> , <b>2020</b> , 93, 711-722	5.7	26
247	Nickel-doped BaCo <sub>0.4</sub> Fe <sub>0.4</sub> Zr <sub>0.1</sub> Y <sub>0.1</sub> O <sub>3-δ</sub> as a new high-performance cathode for both oxygen-ion and proton conducting fuel cells. <i>Chemical Engineering Journal</i> , <b>2021</b> , 420, 127717	14.7	26
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245	Optimal synthesis and new understanding of P2-type Na <sub>2/3</sub> Mn <sub>1/2</sub> Fe <sub>1/4</sub> Co <sub>1/4</sub> O <sub>2</sub> as an advanced cathode material in sodium-ion batteries with improved cycle stability. <i>Ceramics International</i> , <b>2018</b> , 44, 5184-5192	5.1	25
244	Revamping existing glycol technologies in natural gas dehydration to improve the purity and absorption efficiency: Available methods and recent developments. <i>Journal of Natural Gas Science and Engineering</i> , <b>2018</b> , 56, 486-503	4.6	25
243	Removal of copper ions from aqueous solution by adsorption using LABORATORIES-modified bentonite (organo-bentonite). <i>Frontiers of Chemical Science and Engineering</i> , <b>2012</b> , 6, 58-66	4.5	25
242	Electrophoretic deposition of YSZ thin-film electrolyte for SOFCs utilizing electrostatic-steric stabilized suspensions obtained via high energy ball milling. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 9195-9204	6.7	25
241	A cobalt and nickel co-modified layered P2-Na <sub>2/3</sub> Mn <sub>1/2</sub> Fe <sub>1/2</sub> O <sub>2</sub> with excellent cycle stability for high-energy density sodium-ion batteries. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 775, 383-392	5.7	25
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239	Enhancing the triiodide reduction activity of a perovskite-based electrocatalyst for dye-sensitized solar cells through exsolved silver nanoparticles. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 17489-17497 <sup>13</sup>	13	24
238	Evaluation of mixed-conducting lanthanum-strontium-cobaltite ceramic membrane for oxygen separation. <i>AIChE Journal</i> , <b>2009</b> , 55, 2603-2613	3.6	24
237	A comparative study of La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3</sub> and La <sub>0.8</sub> Sr <sub>0.2</sub> Sc <sub>0.1</sub> Mn <sub>0.9</sub> O <sub>3</sub> as cathode materials of single-chamber SOFCs operating on a methane/air mixture. <i>Journal of Power Sources</i> , <b>2009</b> , 191, 225-232 <sup>8.9</sup>	8.9	24
236	Optimization of ionic-liquid based electrolyte concentration for high-energy density graphene supercapacitors. <i>Applied Materials Today</i> , <b>2020</b> , 18, 100522	6.6	24

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234	Electrochemical performance and effect of moisture on Ba <sub>0.5</sub> Sr <sub>0.5</sub> Sc <sub>0.175</sub> Nb <sub>0.025</sub> Co <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> oxide as a promising electrode for proton-conducting solid oxide fuel cells. <i>Applied Energy</i> , <b>2019</b> , 238, 344-350	10.7	23
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230	Rational Design of Metal Oxide Based Cathodes for Efficient Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800172	21.8	23
229	Recent Progress on Structurally Ordered Materials for Electrocatalysis. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2101937	21.8	23
228	Tin and iron co-doping strategy for developing active and stable oxygen reduction catalysts from SrCoO <sub>3</sub> for operating below 800°C. <i>Journal of Power Sources</i> , <b>2015</b> , 294, 339-346	8.9	22
227	Evaluation of pulsed laser deposited SrNb <sub>0.1</sub> Co <sub>0.9</sub> O <sub>3</sub> thin films as promising cathodes for intermediate-temperature solid oxide fuel cells. <i>Journal of Power Sources</i> , <b>2015</b> , 295, 117-124	8.9	22
226	Oriented PrBaCo <sub>2</sub> O <sub>5</sub> thin films for solid oxide fuel cells. <i>Journal of Power Sources</i> , <b>2015</b> , 278, 623-629	8.9	22
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224	Microwave-assisted catalytic methane reforming: A review. <i>Applied Catalysis A: General</i> , <b>2020</b> , 599, 117620	30	22
223	Fuel cells that operate at 300°C to 500°C. <i>Science</i> , <b>2020</b> , 369, 138-139	33.3	22
222	Evaluation of A-site deficient Sr <sub>1-x</sub> Sc <sub>0.175</sub> Nb <sub>0.025</sub> Co <sub>0.8</sub> O <sub>3</sub> (x=0, 0.02, 0.05 and 0.1) perovskite cathodes for intermediate-temperature solid oxide fuel cells. <i>Ceramics International</i> , <b>2016</b> , 42, 12894-12900	5.10	22
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135	Realizing stable high hydrogen permeation flux through BaCo <sub>0.4</sub> Fe <sub>0.4</sub> Zr <sub>0.1</sub> Y <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> membrane using a thin Pd film protection strategy. <i>Journal of Membrane Science</i> , <b>2020</b> , 596, 117709	9.6	12
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27	Low thermal-expansion and high proton uptake for protonic ceramic fuel cell cathode. <i>Journal of Power Sources</i> , <b>2022</b> , 530, 231321	8.9	2
26	Protonic ceramic materials for clean and sustainable energy: advantages and challenges. <i>International Materials Reviews</i> , 1-29	16.1	2
25	CHAPTER 2:Electrolyte Materials for Solid Oxide Fuel Cells (SOFCs). <i>RSC Energy and Environment Series</i> , 26-55	0.6	1
24	Bi-functional oxygen electrocatalysts based on Palladium oxide-Ruthenium oxide composites. <i>Materials Research Society Symposia Proceedings</i> , <b>2012</b> , 1491, 13		1
23	SrCo <sub>0.4</sub> Fe <sub>0.4</sub> Zr <sub>0.1</sub> Y <sub>0.1</sub> O <sub>3-<math>\lambda</math></sub> A new CO <sub>2</sub> tolerant cathode for proton-conducting solid oxide fuel cells. <i>Renewable Energy</i> , <b>2022</b> , 185, 8-16	8.1	1
22	Oxygen permeation simulation of La <sub>0.8</sub> Ca <sub>0.2</sub> Fe <sub>0.95</sub> O <sub>3-<math>\lambda</math></sub> Ag hollow fiber membrane at different modes and flow configurations. <i>AIChE Journal</i> , e17508	3.6	1
21	High Temperature Oxygen Separation Using Dense Ceramic Membranes <b>2015</b> , 1-27		1
20	Characterization of La <sub>0.7</sub> Sr <sub>0.3</sub> CoO <sub>3-<math>\lambda</math></sub> oxygen selective hollow fiber made from acetate precursor-derived powder. <i>Ceramics International</i> , <b>2020</b> , 46, 3744-3749	5.1	1

19	A comparative study on targeting CO <sub>2</sub> emissions reduction from small-scale utility system. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2018</b> , 429, 012081	0.4	1
18	Modeling and simulation study of oxygen permeation in La <sub>0.8</sub> Ca <sub>0.2</sub> Fe <sub>0.95</sub> O <sub>3-<math>\delta</math></sub> -Ag hollow fiber membrane module. <i>Materials Today: Proceedings</i> , <b>2021</b> ,	1.4	1
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16	Thermogravimetric analyses (TGA) of three oil palm biomass pyrolysis: Kinetics and reaction mechanisms. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2020</b> , 778, 012100	0.4	0
15	Systematic Method to Synthesise Optimum Hydrogen Network for Integration of Pyrolysis-Based Bio-refinery and Existing Petroleum Refinery. <i>Process Integration and Optimization for Sustainability</i> , <b>2020</b> , 4, 309-324	2	0
14	Gypsum scaling mechanisms on hydrophobic membranes and its mitigation strategies in membrane distillation. <i>Journal of Membrane Science</i> , <b>2022</b> , 120297	9.6	0
13	Scandium-doped barium ceria ferrites-based composite mixed conducting hollow fiber membranes for H <sub>2</sub> and O <sub>2</sub> permeation. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2021</b> , 107, 100-100	6.3	0
12	A Controllable Dual Interface Engineering Concept for Rational Design of Efficient Bifunctional Electrocatalyst for Zinc-Air Batteries. <i>Small</i> , <b>2021</b> , e2105604	11	0
11	Effect of electrolyte parameters on the discharge characteristics of planar zinc-air flow battery with polymer gel electrolyte as separator. <i>Energy Storage</i> , e304	2.8	0
10	Shaving electric bills with renewables? A multi-period pinch-based methodology for energy planning. <i>Energy</i> , <b>2022</b> , 239, 122320	7.9	0
9	Antiperovskite FeNNi <sub>2</sub> Co and FeNNi <sub>3</sub> nanosheets as a non-enzymatic electrochemical sensor for highly sensitive detection of glucose. <i>Journal of Electroanalytical Chemistry</i> , <b>2021</b> , 884, 115072	4.1	0
8	Soybean meal-derived heteroatoms-doped porous carbons for supercapacitor electrodes. <i>Materials Chemistry and Physics</i> , <b>2022</b> , 284, 126055	4.4	0
7	Physicochemical and structural characterisation of oil palm trunks (OPT) hydrochar made via wet torrefaction. <i>Cleaner Engineering and Technology</i> , <b>2022</b> , 8, 100467	2.7	0
6	Electrolyte Materials for IT-SOFCs. <i>Green Chemistry and Sustainable Technology</i> , <b>2016</b> , 15-57	1.1	
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4	Cu/ZnO Catalysts: Cu/ZnO Catalysts Derived from Bimetallic Metal-Organic Framework for Dimethyl Ether Synthesis from Syngas with Enhanced Selectivity and Stability (Small 14/2020). <i>Small</i> , <b>2020</b> , 16, 2070074	11	
3	High-Temperature Oxygen Separation Using Dense Ceramic Membranes <b>2021</b> , 1-33		
2	Control design for throughput improvement of fuel cell-integrated solar heated membrane desalination system. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2022</b> , 174, 108868	3.7	

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