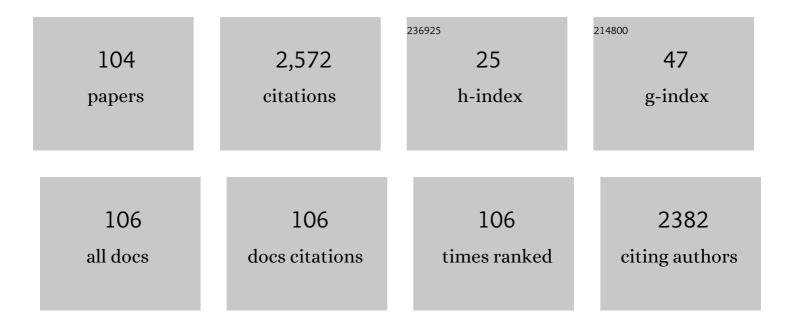
## Mahendra Roa Somalu

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	A review on cathode materials for conventional and proton-conducting solid oxide fuel cells. Journal of Alloys and Compounds, 2022, 894, 162458.	5.5	42
2	Layering Optimization of the SrFe0.9Ti0.1O3â~Î^–Ce0.8Sm0.2O1.9 Composite Cathode. Molecules, 2022, 27, 2549.	3.8	2
3	Synthesis and preliminary study of the multilayer LiCo0.6Ni0.4O2 as solid oxide fuel cell cathode. AIP Conference Proceedings, 2022, , .	0.4	0
4	Structural and Electrochemical Properties of Lanthanum Silicate Apatites La10Si6â^'xâ^'0.2AlxZn0.2O27â^'δ for Solid Oxide Fuel Cells (SOFCs). International Journal of Chemical Engineering, 2021, 2021, 1-10.	2.4	4
5	A review on the preparation of anode materials and anode films for solid oxide fuel cell applications. International Journal of Energy Research, 2021, 45, 14357-14388.	4.5	9
6	Catalytic Performance of Calcium-Lanthanum co-doped Ceria (Ce0.85-xLa0.15CaxO2-Î) in Partial Oxidation of Methane. Bulletin of Chemical Reaction Engineering and Catalysis, 2021, 16, 548-554.	1.1	0
7	Improvement of microbial fuel cell performance using novel kaolin earthenware membrane coated with a polybenzimidazole layer. Energy Science and Engineering, 2021, 9, 2342-2353.	4.0	14
8	Effects of temperature on the chemical composition of tars produced from the gasification of coconut and palm kernel shells using downdraft fixed-bed reactor. Fuel, 2020, 265, 116910.	6.4	18
9	Thermal decomposition, phase formation and microstructure analysis of surfactant assisted sol-gel derived La <sub>0.6</sub> Sr <sub>0.4</sub> CoO <sub>3-δ</sub> material. IOP Conference Series: Earth and Environmental Science, 2020, 463, 012095.	0.3	3
10	Enhanced performance of lithiated cathode materials of LiCo 0 . 6 X 0 . 4 O 2 (X = Mn, Sr, Zn) for protonâ€conducting solid oxide fuel cell applications. International Journal of Energy Research, 2020, 44, 11783-11793.	4.5	8
11	Feasibility of Ni/Ti and Ni/ GF cathodes in microbial electrolysis cells for hydrogen production from fermentation effluent: A step toward real application. International Journal of Energy Research, 2020, 44, 7464-7476.	4.5	6
12	Carbonate-Based Lanthanum Strontium Cobalt Ferrite (LSCF)–Samarium-Doped Ceria (SDC) Composite Cathode for Low-Temperature Solid Oxide Fuel Cells. Applied Sciences (Switzerland), 2020, 10, 3761.	2.5	9
13	Review of composite cathodes for intermediate-temperature solid oxide fuel cell applications. Ceramics International, 2020, 46, 23314-23325.	4.8	95
14	Low-cost novel clay earthenware as separator in microbial electrochemical technology for power output improvement. Bioprocess and Biosystems Engineering, 2020, 43, 1369-1379.	3.4	28
15	Performance of nickel-iron foam (Ni-Fe) cathode in bio-electrochemical system for hydrogen production from effluent of glucose fermentation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2020, 260, 114613.	3.5	3
16	Performance of Ni/10Sc1CeSZ anode synthesized by glycine nitrate process assisted by microwave heating in a solid oxide fuel cell fueled with hydrogen or methane. Journal of Solid State Electrochemistry, 2020, 24, 711-722.	2.5	15
17	Fabrication of highâ€quality electrode films for solid oxide fuel cell by screen printing: A review on important processing parameters. International Journal of Energy Research, 2020, 44, 8296-8313.	4.5	40
18	Influence of Thermal Conductivity on the Thermal Behavior of Intermediate-Temperature Solid Oxide Fuel Cells. Journal of Electrochemical Science and Technology, 2020, 11, 132-139.	2.2	1

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19	Properties of Pr and In-doped BaZrCeY-based electrolyte for Proton Conducting Fuel Cell systems. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012143.	0.3	1
20	Electrochemical performance of La0.6Sr0.4CoO3-δ cathode in air and wet air for BaCe0.54Zr0.36Y0.1O3-based proton-conducting solid oxide fuel cell. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012136.	0.3	2
21	Performance of LiCo <sub>0.6</sub> Zn <sub>0.4</sub> O <sub>2</sub> as a potential cathode material candidate for intermediate solid oxide fuel cell application. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012139.	0.3	3
22	Characterization of tar formation during high temperature gasification of different chemical compositions in biomass. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012142.	0.3	3
23	Optimisation of screen-printed La0.6Sr0.4CoO3-δ cathode film for intermediate temperature proton-conducting solid oxide fuel cell application. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012137.	0.3	3
24	Sol-Gel Synthesis of Solid Solution Based on Cerate-Zirconate Ceramics. Solid State Phenomena, 2019, 290, 29-34.	0.3	1
25	Effect of particle size and temperature on gasification performance of coconut and palm kernel shells in downdraft fixed-bed reactor. Energy, 2019, 175, 931-940.	8.8	45
26	Structural, morphological, and electrochemical behavior of titanium-doped SrFe1-xTixO3-δ (x = 0.1–0.5) perovskite as a cobalt-free solid oxide fuel cell cathode. Ceramics International, 2019, 45, 12903-12909.	4.8	18
27	Fibre orientation effect on polypropylene/milled carbon fiber composites in the presence of carbon nanotubes or graphene as a secondary filler: Application on PEM fuel cell bipolar plate. International Journal of Hydrogen Energy, 2019, 44, 30618-30626.	7.1	29
28	Influence of current collecting and functional layer thickness on the performance stability of La0.6Sr0.4Co0.2Fe0.8O3-Î-Ce0.8Sm0.2O1.9 composite cathode. Journal of Solid State Electrochemistry, 2019, 23, 1155-1164.	2.5	9
29	Synthesis and characterization of cobalt-free SrFe0·8Ti0·2O3-δ cathode powders synthesized through combustion method for solid oxide fuel cells. International Journal of Hydrogen Energy, 2019, 44, 30682-30691.	7.1	12
30	Review: Enhancement of composite anode materials for low-temperature solid oxide fuels. International Journal of Hydrogen Energy, 2019, 44, 30692-30704.	7.1	31
31	A comparison of long-term fouling performance by zirconia ceramic filter and cation exchange in microbial fuel cells. International Biodeterioration and Biodegradation, 2019, 136, 63-70.	3.9	33
32	Review on zirconate-cerate-based electrolytes for proton-conducting solidÂoxide fuel cell. Ceramics International, 2019, 45, 6605-6615.	4.8	121
33	Effect of lithium hexafluorophosphate LiPF6 and 1-butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide [Bmim][TFSI] immobilized in poly(2-hydroxyethyl methacrylate) PHEMA. Polymer Bulletin, 2019, 76, 3693-3707.	3.3	4
34	Influence of strontium co-doping on the structural, optical, and electrical properties of erbium-doped ceria electrolyte for intermediate temperature solid oxide fuel cells. Ceramics International, 2019, 45, 5627-5636.	4.8	34
35	Synthesis and characterization of M-doped ceria-ternary carbonate composite electrolytes (MÂ=) Tj ETQq1 1 0.78 Compounds, 2019, 775, 571-580.	34314 rgB <sup>-</sup> 5.5	Г /Overlock 25
36	Influence the Filler Orientation on the Performance of Bipolar Plate. Sains Malaysiana, 2019, 48, 669-676.	0.5	6

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37	Kelakuan Pengoksidaan Keluli Tahan Karat Berferit SUS430 dan Kesan Pemeruapan Spesies Cr Bergas kepada Permukaan Katod LSCF dalam Suhu Operasi Sel Fuel Oksida Pepejal. Sains Malaysiana, 2019, 48, 861-869.	0.5	3
38	Effect of ball milling time on the properties of nickeloxide-samarium-doped cerium composite anodes for solid oxide fuel cells. International Journal of Materials and Product Technology, 2019, 59, 16.	0.2	1
39	Fabrication and Characterization of YSZ/ScSZ Bilayer Electrolyte via Cold-Isostatic Pressing (CIP) Method for Intermediate Temperature-Solid Oxide Fuel Cell (IT-SOFC) Application. International Journal of Integrated Engineering, 2019, 11, .	0.4	0
40	Influence of oxygen ion enrichment on optical, mechanical, and electrical properties of LSCF perovskite nanocomposite. Ceramics International, 2018, 44, 10433-10442.	4.8	18
41	Performance of titanium–nickel (Ti/Ni) and graphite felt-nickel (GF/Ni) electrodeposited by Ni as alternative cathodes for microbial fuel cells. Journal of the Taiwan Institute of Chemical Engineers, 2018, 89, 67-76.	5.3	22
42	Structural, optical and electrical properties of Ce0.8Sm0.2-Er O2- (x = 0–0.2) Co-doped ceria electrolytes. Ceramics International, 2018, 44, 13639-13648.	4.8	33
43	Synthesis and Characterization of Sm <sub>1-x</sub> Zr <sub>x</sub> Fe <sub>1-y</sub> Mg <sub>y</sub> O <sub>3</sub> (x, y = 0.5, 0.7, 0.9) as Possible Electrolytes for SOFCs. Key Engineering Materials, 2018, 765, 49-53.	0.4	2
44	Optical, mechanical and electrical properties of LSCF–SDC composite cathode prepared by sol–gel assisted rotary evaporation technique. Journal of Sol-Gel Science and Technology, 2018, 86, 493-504.	2.4	12
45	Comparison of performance and ionic concentration gradient of two-chamber microbial fuel cell using ceramic membrane (CM) and cation exchange membrane (CEM) as separators. Electrochimica Acta, 2018, 259, 365-376.	5.2	58
46	Enhanced electrochemical performance of LSCF cathode through selection of optimum fabrication parameters. Journal of Solid State Electrochemistry, 2018, 22, 263-273.	2.5	25
47	Effects of sintering temperature on the structural and electrochemical properties of SrFe <sub>0.5</sub> Ti <sub>0.5</sub> O <sub>3â€Î́</sub> perovskite cathode. International Journal of Applied Ceramic Technology, 2018, 15, 338-348.	2.1	15
48	Extrusion Process of Polypropylene Composites Reinforced Milled Carbon Fibre for Conductive Polymer Composite Application. MATEC Web of Conferences, 2018, 248, 01012.	0.2	3
49	A review of key parameters for effective electrophoretic deposition in the fabrication of solid oxide fuel cells. Journal of Zhejiang University: Science A, 2018, 19, 811-823.	2.4	24
50	Electrical and electrochemical characteristics of La0.6Sr0.4CoO3-δ cathode materials synthesized by a modified citrate-EDTA sol-gel method assisted with activated carbon for proton-conducting solid oxide fuel cell application. Journal of Sol-Gel Science and Technology, 2018, 86, 617-630.	2.4	26
51	Enhanced hydrogen selectivity from catalytic decomposition of formic acid over FeZnIr nanocatalyst at room temperature. Research on Chemical Intermediates, 2018, 44, 6787-6802.	2.7	11
52	Effects of Die Configuration on the Electrical Conductivity of Polypropylene Reinforced Milled Carbon Fibers: An Application on a Bipolar Plate. Polymers, 2018, 10, 558.	4.5	9
53	Perovskite-based proton conducting membranes for hydrogen separation: A review. International Journal of Hydrogen Energy, 2018, 43, 15281-15305.	7.1	86
54	Synthesis and Characterization of Zn-doped LiCoO2 Material Prepared via Glycinenitrate Combustion Method for Proton Conducting Solid Oxide Fuel Cell Application. Jurnal Kejuruteraan, 2018, SI1, 11-15.	0.3	5

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55	Heat Treatment Effect on the Phase and Morphology of NiO-BCZY Prepared by an Evaporation and Decomposition of Solution and Suspension Method. Sains Malaysiana, 2018, 47, 589-594.	0.5	10
56	Electrochemical performance of sol-gel derived La0.6S0.4CoO3-l̂´ cathode material for proton-conducting fuel cell: A comparison between simple and advanced cell fabrication techniques. Processing and Application of Ceramics, 2018, 12, 277-286.	0.8	6
57	Influence of Silver Addition on the Morphological and Thermal Characteristics of Nickel Oxide-Samarium Doped Ceria Carbonate (NiO-SDCC) Composite Anode. International Journal of Integrated Engineering, 2018, 10, .	0.4	1
58	A short review on the modeling of solid-oxide fuel cells by using computational fluid dynamics: assumptions and boundary conditions. International Journal of Integrated Engineering, 2018, 10, .	0.4	3
59	Challenges in Fabricating Solid Oxide Fuel Cell Stacks for Portable Applications: A Short Review. International Journal of Integrated Engineering, 2018, 10, .	0.4	3
60	Short review on cobalt-free cathodes for solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 9149-9155.	7.1	99
61	Metallic interconnects for solid oxide fuel cell: A review on protective coating and deposition techniques. International Journal of Hydrogen Energy, 2017, 42, 9219-9229.	7.1	208
62	Challenges in fabricating planar solid oxide fuel cells: A review. Renewable and Sustainable Energy Reviews, 2017, 72, 105-116.	16.4	109
63	Preparation of SrFe 0.5 Ti 0.5 O 3â^`î´ perovskite-structured ceramic using the glycine-nitrate combustion technique. Materials Letters, 2017, 194, 197-201.	2.6	10
64	Electrical properties of extruded milled carbon fibre and polypropylene. Journal of Composite Materials, 2017, 51, 3187-3195.	2.4	13
65	Enhanced ionic conductivity of scandia-ceria-stabilized-zirconia (10Sc1CeSZ) electrolyte synthesized by the microwave-assisted glycine nitrate process. Ceramics International, 2017, 43, 8119-8125.	4.8	73
66	Influence of mixing time on the purity and physical properties of SrFe0.5Ti0.5O3-δ powders produced by solution combustion. Powder Technology, 2017, 313, 382-388.	4.2	17
67	Formation of sol–gel derived (Cu,Mn,Co)3O4 spinel and its electrical properties. Ceramics International, 2017, 43, 7641-7646.	4.8	22
68	Effect of compaction pressure on the performance of a non-symmetrical NiO–SDC/SDC composite anode fabricated by conventional furnace. Journal of Asian Ceramic Societies, 2017, 5, 77-81.	2.3	6
69	Enhancement of the interfacial polarization resistance of La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O 3-δ cathode by microwave-assisted combustion method. Ceramics International, 2017, 43, 4647-4654.	4.8	26
70	Immobilized mixed-culture reactor (IMcR) for hydrogen and methane production from glucose. Energy, 2017, 139, 1188-1196.	8.8	20
71	Properties of screen-printed nickel/scandia-stabilized-zirconia anodes fabricated using rheologically optimized inks during redox cycles. Journal of Materials Science, 2017, 52, 7175-7185.	3.7	7
72	Screen-printing inks for the fabrication of solid oxide fuel cell films: A review. Renewable and Sustainable Energy Reviews, 2017, 75, 426-439.	16.4	105

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73	Synthesis and characterization of uniform-sized cubic ytterbium scandium co-doped zirconium oxide (1Yb10ScSZ) nanoparticles by using basic amino acid as organic precursor. International Journal of Hydrogen Energy, 2017, 42, 9274-9283.	7.1	6
74	Ce 0.80 Sm 0.10 Ba 0.05 Er 0.05 O 2-δ multi-doped ceria electrolyte for intermediate temperature solid oxide fuel cells. Ceramics International, 2017, 43, 1265-1271.	4.8	35
75	Effect of sintering temperature on the microstructure and ionic conductivity of Ce0.8Sm0.1Ba0.1O2-δ electrolyte. Processing and Application of Ceramics, 2017, 11, 67-74.	0.8	23
76	EFFECTS OF NIO LOADING AND PRE-CALCINATION TEMPERATURE ON NIO-SDCC COMPOSITE ANODE POWDER FOR LOW-TEMPERATURE SOLID OXIDE FUEL CELLS. Ceramics - Silikaty, 2017, , 41-49.	0.3	0
77	Influence of Calcination on the Properties of Nickel Oxide-Samarium Doped Ceria Carbonate (NiO-SDCC) Composite Anodes. Procedia Chemistry, 2016, 19, 267-274.	0.7	13
78	Effect of manganese oxide on the sinterability of 8 mol% yttria-stabilized zirconia. Materials Characterization, 2016, 120, 331-336.	4.4	7
79	Microwave sintering of ceria-doped scandia stabilized zirconia as electrolyte for solid oxide fuel cell. International Journal of Hydrogen Energy, 2016, 41, 14184-14190.	7.1	22
80	Thermal Decomposition of Cobalt-free SrFe0.9Ti0.1O3-δ Cathode for Intermediate Temperature Solid Oxide Fuel Cell. Procedia Engineering, 2016, 148, 72-77.	1.2	6
81	Nanostructured Cu-CGO anodes fabricated using a microwave-assisted glycine–nitrate process. Journal of Physics and Chemistry of Solids, 2016, 98, 91-99.	4.0	13
82	Effects of sintering on the mechanical and ionic properties of ceria-doped scandia stabilized zirconia ceramic. Ceramics International, 2016, 42, 14469-14474.	4.8	17
83	LSC cathode prepared by polymeric complexation method for proton-conducting SOFC application. Journal of Sol-Gel Science and Technology, 2016, 78, 382-393.	2.4	18
84	The Effect of NiO Content on the Physical Properties of NiO–Samarium Doped Ceria Carbonate Composite Anode Powder for Solid Oxide Fuel Cells. Advanced Materials Research, 2016, 1133, 18-22.	0.3	1
85	Preparation of Nickel Oxide-Samarium-Doped Ceria Carbonate Composite Anode Powders by Using High-Energy Ball Milling for Low-Temperature Solid Oxide Fuel Cells. Materials Science Forum, 2016, 840, 97-102.	0.3	2
86	Nanostructured and Nonsymmetrical NiO–SDC/SDC Composite Anode Performance via a Microwave-Assisted Route for Intermediate-Temperature Solid Oxide Fuel Cells. Materials and Manufacturing Processes, 2016, 31, 1301-1305.	4.7	8
87	INFLUENCE OF SINTERING TEMPERATURE ON THE POLARIZATION RESISTANCE OF LaO20.6SrO20.4CoO20.2FeO20.8O3-δ- SDC CARBONATE COMPOSITE CATHODE. Ceramics - Silikaty, 2016, , 115-121.	0.3	15
88	INFLUENCE OF SINTERING TEMPERATURE ON NiO-SDCC ANODE FOR LOW-TEMPERATURE SOLID OXIDE FUEL CELLS (LT-SOFCs). Ceramics - Silikaty, 2016, , 317-323.	0.3	5
89	Pengoptimuman Proses Penyemperitan Gentian Karbon Terkisar dan Polipropilena bagi Komposit Polimer Pengalir. Sains Malaysiana, 2016, 45, 1913-1921.	0.5	5
90	PREPARATION OF LANTHANUM STRONTIUM COBALT OXIDE POWDER BY A MODIFIED SOL-GEL METHOD. Malaysian Journal of Analytical Sciences, 2016, 20, 1458-1466.	0.1	9

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91	Review on anode material development in solid oxide fuel cells. AIP Conference Proceedings, 2015, , .	0.4	1
92	Characterization of IT-SOFC non-symmetrical anode sintered through conventional furnace and microwave. Ceramics International, 2015, 41, 5663-5669.	4.8	12
93	A review on the selection of anode materials for solid-oxide fuel cells. Renewable and Sustainable Energy Reviews, 2015, 51, 1-8.	16.4	171
94	Towards the 3D Modelling of the Effective Conductivity of Solid Oxide Fuel Cell Electrodes – Validation against experimental measurements and prediction of electrochemical performance. Electrochimica Acta, 2015, 168, 139-147.	5.2	24
95	Effect of sintering temperature on surface morphology and electrical properties of samarium-doped ceria carbonate for solid oxide fuel cells. Ceramics International, 2015, 41, 1323-1332.	4.8	24
96	3D imaging and quantification of interfaces in SOFC anodes. Journal of the European Ceramic Society, 2014, 34, 3755-3761.	5.7	24
97	Understanding the Relationship between Ink Rheology and Film Properties for Screen-Printed Nickel/Scandia-Stabilized-Zirconia Anodes. ECS Transactions, 2013, 57, 1321-1330.	0.5	10
98	The effect of solids loading on the screen-printing and properties of nickel/scandia-stabilized-zirconia anodes for solid oxide fuel cells. International Journal of Hydrogen Energy, 2013, 38, 9500-9510.	7.1	39
99	Copper-phthalocyanine and nickel nanoparticles as novel cathode catalysts in microbial fuel cells. International Journal of Hydrogen Energy, 2013, 38, 9533-9540.	7.1	132
100	The impact of ink rheology on the properties of screen-printed solid oxide fuel cell anodes. International Journal of Hydrogen Energy, 2013, 38, 6789-6801.	7.1	28
101	Rheological Studies of Nickel/Scandiaâ€Stabilizedâ€Zirconia Screen Printing Inks for Solid Oxide Fuel Cell Anode Fabrication. Journal of the American Ceramic Society, 2012, 95, 1220-1228.	3.8	59
102	A Study of the Rheological Properties of NiO/ScSZ Screen-Printing Inks and Their Application to SOFC Anodes. ECS Transactions, 2011, 35, 1483-1500.	0.5	3
103	Fabrication and characterization of Ni/ScSZ cermet anodes for IT-SOFCs. International Journal of Hydrogen Energy, 2011, 36, 5557-5566.	7.1	66
104	Carbon Fibre Reinforced Polypropylene: An Electrical Conductivity Model. Key Engineering Materials, 0, 791, 29-34.	0.4	1