

Murugan Ramaswamy

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/5366123/murugan-ramaswamy-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

5,170
citations

32
h-index

71
g-index

99
ext. papers

5,891
ext. citations

5.3
avg, IF

5.96
L-index

#	Paper	IF	Citations
98	Review Microstructural Modification in Lithium Garnet Solid-State Electrolytes: Emerging Trends. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 030548	3.9	0
97	Plasma assisted decomposition and reforming of greenhouse gases: A review of current status and emerging trends. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 161, 112343	16.2	2
96	Effect of vacancy defects on electronic structure and ferromagnetism in pristine In ₂ O ₃ nanostructures: An experimental study and first-principles modeling. <i>Materials Research Bulletin</i> , 2022 , 152, 111853	5.1	
95	Genesis and tuning of ferromagnetism in SnO ₂ semiconductor nanostructures: comprehensive review on size, morphology, magnetic properties and DFT investigations. <i>Progress in Materials Science</i> , 2022 , 100970	42.2	0
94	Morphology Controlled Synthesis of Fe and Mn co-doped In ₂ O ₃ Nanocubes and Their Dopant-Atom Effects on Electronic Structure and Magnetic Properties. <i>Journal of Magnetism and Magnetic Materials</i> , 2022 , 169547	2.8	1
93	Electrochemical characteristics of Ge incorporated Li ₄ Ti ₅ O ₁₂ as an anode for Li-ion battery applications. <i>Materials Today Communications</i> , 2021 , 27, 102273	2.5	3
92	A brief review of recent advances in garnet structured solid electrolyte based lithium metal batteries. <i>Journal of Energy Storage</i> , 2021 , 33, 102157	7.8	14
91	Advances in Electrolytes for High Capacity Rechargeable Lithium-Sulphur Batteries. <i>Current Smart Materials</i> , 2021 , 5, 3-37	1	6
90	Review on the critical issues for the realization of all-solid-state lithium metal batteries with garnet electrolyte: interfacial chemistry, dendrite growth, and critical current densities. <i>Ionics</i> , 2021 , 27, 4105-4126	2.7	3
89	Lithium garnet-cathode interfacial chemistry: inclusive insights and outlook toward practical solid-state lithium metal batteries. <i>Materials Today Energy</i> , 2021 , 21, 100804	7	9
88	Polymer-garnet composite electrolyte based on comb-like structured polymer for lithium-metal batteries. <i>Materials Today Energy</i> , 2021 , 21, 100836	7	6
87	Investigation on electronic structure and magnetic properties of Co and Mn incorporated nanoscale SnO ₂ . <i>Applied Physics A: Materials Science and Processing</i> , 2020 , 126, 1	2.6	3
86	Room temperature magnetoelectric coupling in Fe-doped sodium bismuth titanate ceramics. <i>Journal of Alloys and Compounds</i> , 2020 , 830, 154679	5.7	5
85	Origin and control of room temperature ferromagnetism in Co,Zn-doped SnO ₂ : oxygen vacancies and their local environment. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 4902-4908	7.1	5
84	Emerging scenario on displacive cubic bismuth pyrochlores (Bi,M)MNO ₇ -[(M = transition metal, N = Nb, Ta, Sb) in context of their fascinating structural, dielectric and magnetic properties. <i>Ceramics International</i> , 2020 , 46, 14346-14360	5.1	4
83	Lithium garnet incorporated 3D electrospun fibrous membrane for high capacity lithium-metal batteries. <i>Materials Today Energy</i> , 2020 , 16, 100389	7	10
82	Higher Critical Current Density in Lithium Garnets at Room Temperature by Incorporation of an Li ₄ SiO ₄ -Related Glassy Phase and Hot Isostatic Pressing. <i>ACS Applied Energy Materials</i> , 2020 , 3, 2737-2743	6.1	8

81	Development of stable and conductive interface between garnet structured solid electrolyte and lithium metal anode for high performance solid-state battery. <i>Electrochimica Acta</i> , 2020 , 332, 135511	6.7	23
80	Interface-Compatible and High-Cyclability Lithiophilic Lithium-Zinc Alloy Anodes for Garnet-Structured Solid Electrolytes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 9010-9017	6.1	16
79	XANES, EXAFS, EPR, and First-Principles Modeling on Electronic Structure and Ferromagnetism in Mn Doped SnO ₂ Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 3067-3075	3.8	7
78	Effect of doping and annealing on the electronic structure and magnetic properties of nanoscale Co and Zn co-doped SnO ₂ : An experimental study and first-principles modeling. <i>Journal of Alloys and Compounds</i> , 2019 , 799, 433-441	5.7	5
77	Electrospun 3D CNFBiO ₂ fabricated using non-biodegradable silica gel as prospective anode for lithium-ion batteries. <i>Ionics</i> , 2019 , 25, 5305-5313	2.7	8
76	Flexible high Li ⁺ conductive lithium garnet-based dry solid polymer electrolyte membrane with enhanced electrochemical performance for lithium metal batteries. <i>Ionics</i> , 2019 , 25, 4703-4711	2.7	8
75	Microstructural engineering in lithium garnets by hot isostatic press to control lithium dendrite growth and negate interfacial resistance for all solid state battery applications. <i>Electrochimica Acta</i> , 2019 , 312, 320-328	6.7	16
74	Enhanced electrochemical performance of lithium-sulphur battery by negating polysulphide shuttling and interfacial resistance through aluminium nanolayer deposition on a polypropylene separator. <i>Ionics</i> , 2019 , 25, 1645-1657	2.7	8
73	Room temperature multiferroicity and magnetoelectric coupling in Na-deficient sodium bismuth titanate. <i>Applied Physics Letters</i> , 2019 , 114, 062902	3.4	5
72	Realization of room temperature lithium metal battery with high Li ⁺ conductive lithium garnet solid electrolyte. <i>Ceramics International</i> , 2019 , 45, 22610-22616	5.1	12
71	Room temperature magnetoelectric coupling and relaxor-like multiferroic nature in a biphasic of cubic pyrochlore and spinel. <i>Journal of Applied Physics</i> , 2019 , 126, 044103	2.5	4
70	Metal Coated Polypropylene Separator with Enhanced Surface Wettability for High Capacity Lithium Metal Batteries. <i>Scientific Reports</i> , 2019 , 9, 16795	4.9	13
69	Interfacial Engineering for Lithium Metal Batteries Based on Garnet Structured Solid Fast Lithium-Ion Conductors 2019 , 241-273		
68	An insight into the origin of room-temperature ferromagnetism in SnO and Mn-doped SnO quantum dots: an experimental and DFT approach. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 6500-6514	2.6	17
67	Electrodes-electrolyte interfacial engineering for realizing room temperature lithium metal battery based on garnet structured solid fast Li ⁺ conductors. <i>Journal of Power Sources</i> , 2018 , 396, 764-773	8.9	53
66	Lithium garnet based free-standing solid polymer composite membrane for rechargeable lithium battery. <i>Journal of Solid State Electrochemistry</i> , 2018 , 22, 2989-2998	2.6	36
65	Microwave-assisted rapid synthesis of Fe ₃ O ₄ /poly(styrene-divinylbenzene-acrylic acid) polymeric magnetic composites and investigation of their structural and magnetic properties. <i>European Polymer Journal</i> , 2018 , 98, 177-190	5.2	33
64	Electrochemical performance of a garnet solid electrolyte based lithium metal battery with interface modification. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 21018-21028	13	41

63	Enhanced magnetic ordering transition temperature and broad dielectric relaxation in iron incorporated intergrown pyrochlore-spinel crystals. <i>Journal of Alloys and Compounds</i> , 2018 , 763, 409-420	5.7	2
62	Garnet structured solid fast Li ⁺ conductor as polysulfide shuttle inhibitor in Li-S battery. <i>Electrochemistry Communications</i> , 2018 , 93, 109-113	5.1	26
61	Lithium garnets: Synthesis, structure, Li ⁺ conductivity, Li ⁺ dynamics and applications. <i>Progress in Materials Science</i> , 2017 , 88, 325-411	42.2	216
60	Tunable magnetocaloric effect in Sr _{1-x} Ca _x Mn _{0.5} Ti _{0.5} O ₃ perovskites. <i>Applied Physics A: Materials Science and Processing</i> , 2017 , 123, 1	2.6	1
59	Electronic and Thermoelectric Properties of SrTiO ₃ . <i>Current Smart Materials</i> , 2017 , 2,	1	1
58	Lithium garnet oxide dispersed polymer composite membrane for rechargeable lithium batteries. <i>Ionics</i> , 2017 , 23, 541-548	2.7	8
57	Magnetic field-induced switching of magnetic ordering in SrFeO ₃ . <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	1
56	Investigation on lithium ion conductivity and structural stability of yttrium-substituted Li ₇ La ₃ Zr ₂ O ₁₂ . <i>Ionics</i> , 2016 , 22, 1281-1289	2.7	25
55	First principle calculations on structural, electronic and transport properties of Li ₂ TiS ₃ and Li ₃ NbS ₄ positive electrode materials. <i>Materials for Renewable and Sustainable Energy</i> , 2016 , 5, 1	4.7	2
54	Room temperature dilute magnetism in nanoscale Co and Zn co-doped SnO ₂ . <i>Superlattices and Microstructures</i> , 2016 , 89, 7-14	2.8	17
53	First principle study on electronic structure, structural phase stability, optical and vibrational properties of Ba ₂ ScMO ₆ (M = Nb, Ta). <i>International Journal of Modern Physics B</i> , 2016 , 30, 1550246	1.1	4
52	Phase transition, lithium ion conductivity and structural stability of tin substituted lithium garnets. <i>RSC Advances</i> , 2016 , 6, 94706-94716	3.7	6
51	Displacive disorder and spin frustration hosted multiferroic orders in pyrochlore-spinel composites. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 7766-7774	7.1	5
50	Facile synthesis of high lithium ion conductive cubic phase lithium garnets for electrochemical energy storage devices. <i>RSC Advances</i> , 2015 , 5, 96042-96051	3.7	32
49	Synthesis of lithium garnets from La ₂ Zr ₂ O ₇ pyrochlore. <i>Solid State Ionics</i> , 2015 , 283, 123-130	3.3	28
48	Optimization of Lithium Content and Sintering Aid for Maximized Li ⁺ Conductivity and Density in Ta-Doped Li ₇ La ₃ Zr ₂ O ₁₂ . <i>Journal of the American Ceramic Society</i> , 2015 , 98, 2039-2046	3.8	50
47	Influence of lithium concentration on the structure and Li ⁺ transport properties of cubic phase lithium garnets. <i>Dalton Transactions</i> , 2015 , 44, 539-52	4.3	21
46	Green grasses as light harvesters in dye sensitized solar cells. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2015 , 135, 947-52	4.4	40

45	First-principle study on lithium intercalated antimonides Ag ₃ Sb and Mg ₃ Sb ₂ . <i>Ionics</i> , 2015 , 21, 1351-1361.2.7	4
44	Synthesis of Cu ₂ O Nanospheres and Cubes: Their Structural, Optical and Magnetic Properties. <i>Advanced Materials Research</i> , 2014 , 938, 114-117	0.5 3
43	Influence of sintering additives on densification and Li ⁺ conductivity of Al doped Li ₇ La ₃ Zr ₂ O ₁₂ lithium garnet. <i>RSC Advances</i> , 2014 , 4, 51228-51238	3.7 99
42	Effect of simultaneous substitution of Y and Ta on the stabilization of cubic phase, microstructure, and Li(+) conductivity of Li ₇ La ₃ Zr ₂ O ₁₂ lithium garnet. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 17606-15	9.5 79
41	Influence of zirconium doping on structure, microstructure, dielectric and impedance properties of strontium bismuth niobate ceramics. <i>Current Applied Physics</i> , 2014 , 14, 407-414	2.6 8
40	Lithium ion transport properties of high conductive tellurium substituted Li ₇ La ₃ Zr ₂ O ₁₂ cubic lithium garnets. <i>Journal of Power Sources</i> , 2013 , 240, 18-25	8.9 143
39	Room temperature ferromagnetic properties of Cu ₂ O microcrystals. <i>Journal of Alloys and Compounds</i> , 2013 , 579, 572-575	5.7 11
38	Performance of dye-sensitized solar cells fabricated with extracts from fruits of ivy gourd and flowers of red frangipani as sensitizers. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2013 , 104, 35-40	4.4 103
37	Structure and Li ⁺ dynamics of Sb-doped Li ₇ La ₃ Zr ₂ O ₁₂ fast lithium ion conductors. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 11327-38	3.6 97
36	ELECTRONIC STRUCTURE, MAGNETIC ORDERING AND PHASE STABILITY OF LiFeX (X = P, As and Sb) UNDER PRESSURE. <i>Modern Physics Letters B</i> , 2013 , 27, 1350236	1.6 4
35	Li ⁺ transport properties of W substituted Li ₇ La ₃ Zr ₂ O ₁₂ cubic lithium garnets. <i>AIP Advances</i> , 2013 , 3, 082115	1.5 63
34	Li _{7-x} La ₃ Sn _{2-x} Nb _x O ₁₂ (x = 0.25) cubic lithium garnet. <i>Materials Letters</i> , 2012 , 77, 57-59	3.3 11
33	Optimum lithium-ion conductivity in cubic Li _{7-x} La ₃ Hf _{2-x} Ta _x O ₁₂ . <i>Journal of Power Sources</i> , 2012 , 209, 184-188	8.9 60
32	Structural, morphological and optical properties of Na and K dual doped CdS thin film. <i>Journal of Alloys and Compounds</i> , 2012 , 545, 41-45	5.7 29
31	Synthesis of Cu ₂ O microcrystals with morphological evolution from octahedral to microrod through a simple surfactant-free chemical route. <i>CrystEngComm</i> , 2012 , 14, 8338	3.3 25
30	High conductive yttrium doped Li ₇ La ₃ Zr ₂ O ₁₂ cubic lithium garnet. <i>Electrochemistry Communications</i> , 2011 , 13, 1373-1375	5.1 127
29	Synthesis of cubic Li ₇ La ₃ Zr ₂ O ₁₂ by modified sol-gel process. <i>Ionics</i> , 2011 , 17, 575-580	2.7 76
28	High lithium ion conductive Li ₇ La ₃ Zr ₂ O ₁₂ by inclusion of both Al and Si. <i>Electrochemistry Communications</i> , 2011 , 13, 509-512	5.1 201

27	Characterization of the interface between LiCoO ₂ and Li ₇ La ₃ Zr ₂ O ₁₂ in an all-solid-state rechargeable lithium battery. <i>Journal of Power Sources</i> , 2011 , 196, 764-767	8.9	253
26	Fast ionic conduction in cubic hafnium garnet Li ₇ La ₃ Hf ₂ O ₁₂ . <i>Ionics</i> , 2010 , 16, 855-858	2.7	29
25	Structure and lithium ion conductivity of garnet-like Li ₅ La ₃ Sb ₂ O ₁₂ and Li ₆ SrLa ₂ Sb ₂ O ₁₂ . <i>Materials Research Bulletin</i> , 2008 , 43, 2579-2591	5.1	58
24	Lattice Parameter and Sintering Temperature Dependence of Bulk and Grain-Boundary Conduction of Garnet-like Solid Li-Electrolytes. <i>Journal of the Electrochemical Society</i> , 2008 , 155, A90	3.9	64
23	Fast lithium ion conduction in garnet-type Li ₇ (La ₃ Zr ₂)O ₁₂ . <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 7778-81	16.4	1876
22	Schnelle Lithiumionenleitung in granatartigem Li ₇ La ₃ Zr ₂ O ₁₂ . <i>Angewandte Chemie</i> , 2007 , 119, 7925-7928	3.6	116
21	Structure and lithium ion conductivity of bismuth containing lithium garnets Li ₅ La ₃ Bi ₂ O ₁₂ and Li ₆ SrLa ₂ Bi ₂ O ₁₂ . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2007 , 143, 14-20	3.1	84
20	Lithium ion conductivity of Li _{5+x} Ba _x La _{3-2x} Ta ₂ O ₁₂ (x = 0-2) with garnet-related structure in dependence of the barium content. <i>Ionics</i> , 2007 , 13, 195-203	2.7	70
19	Dielectric properties of Sr _{0.8} Bi _{2.2} (V _{0.2} Nb _{0.8}) ₂ O ₉ ceramic. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006 , 127, 224-227	3.1	22
18	Dielectric properties of Sr _{1-x} Bi _{2+(2/3)x} (V _x Nb _{1-x}) ₂ O ₉ [X=0.1 and 0.2] ceramics. <i>Ceramics International</i> , 2006 , 32, 467-470	5.1	13
17	Electronic structure and structural phase stability of CuAlX ₂ (X=S, Se, Te) under pressure. <i>Journal of Physics and Chemistry of Solids</i> , 2006 , 67, 669-674	3.9	27
16	Electronic and structural properties of CuMO ₂ (M = Al, Ga, In). <i>Journal of Alloys and Compounds</i> , 2005 , 388, 19-22	5.7	45
15	Characterization of PEG: LiClO ₄ + SrBi ₄ Ti ₄ O ₁₅ nanocomposite polymer electrolytes for lithium secondary batteries. <i>Journal of Power Sources</i> , 2005 , 149, 90-95	8.9	34
14	Dielectric properties of Sr _{1+x} Bi _{2(2/3)x} (V _x Ta _{1-x}) ₂ O ₉ [x = 0.1 and 0.2] ceramics. <i>Physica B: Condensed Matter</i> , 2005 , 357, 439-444	2.8	6
13	Synthesis and characterization of LiNi _y Co _{1-y} PO ₄ (y=0-1) cathode materials for lithium secondary batteries. <i>Ionics</i> , 2004 , 10, 88-92	2.7	48
12	Investigation on ionic conductivity and Raman spectra of Bi ₂ MoO ₆ . <i>Physica B: Condensed Matter</i> , 2004 , 352, 227-232	2.8	38
11	Electronic and structural properties of zinc chalcogenides ZnX (X=S, Se, Te). <i>Journal of Alloys and Compounds</i> , 2003 , 359, 22-26	5.7	77
10	Investigation of structural changes in the phase transformations of Bi ₂ MoO ₆ . <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 4001-4010	1.8	12

9	Phase transformation studies of ceramic BaTiO ₃ using thermo-Raman and dielectric constant measurements. <i>Journal of Applied Physics</i> , 2002 , 91, 10038	2.5	65
8	Ionic conductivity and Raman investigations on the phase transformations of Na ₄ P ₂ O ₇ . <i>Journal of Alloys and Compounds</i> , 2002 , 340, 95-100	5.7	13
7	Thermo-Raman studies on dehydration of Na ₃ PO ₄ · 12H ₂ O. <i>Thermochimica Acta</i> , 2001 , 371, 127-135	2.9	13
6	Coupling of thermogravimetric analysis and thermo-Raman spectroscopy for in situ dynamic thermal analysis. <i>Thermochimica Acta</i> , 2001 , 374, 45-49	2.9	15
5	Thermo-Raman studies on NaH ₂ PO ₄ · H ₂ O for dehydration, condensation, and phase transformation. <i>Inorganic Chemistry</i> , 2001 , 40, 5917-23	5.1	23
4	Studies on thermal hysteresis of KNO ₃ by thermo-Raman spectroscopy. <i>Thermochimica Acta</i> , 2000 , 346, 83-90	2.9	27
3	Thermo-Raman spectroscopic studies on polymorphism in Na ₂ SO ₄ . <i>Journal of Physics Condensed Matter</i> , 2000 , 12, 677-700	1.8	65
2	Thermo-Raman investigations on structural transformations in hydrated MoO ₃ . <i>Journal of Materials Chemistry</i> , 2000 , 10, 2157-2162		41
1	Raman studies on ferroelectric phase (phase III) of KNO ₃ . <i>Journal of Applied Physics</i> , 1999 , 86, 6779-6788	2.5	24