

# Mas A Subramanian

## List of Publications by Year in descending order

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63  
papers

3,597  
citations

304743

22  
h-index

128289

60  
g-index

71  
all docs

71  
docs citations

71  
times ranked

4720  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermoelectric Materials, Phenomena, and Applications: A Bird's Eye View. MRS Bulletin, 2006, 31, 188-198.	3.5	1,295
2	Structural and magnetic studies of Sr <sub>2</sub> IrO <sub>4</sub> . Physical Review B, 1994, 49, 9198-9201.	3.2	381
3	Colossal Magnetoresistance Without Mn <sup>3+</sup> /Mn <sup>4+</sup> Double Exchange in the Stoichiometric Pyrochlore Ti <sub>2</sub> Mn <sub>2</sub> O <sub>7</sub> . Science, 1996, 273, 81-84.	12.6	313
4	Clues to the Giant Dielectric Constant of CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> in the Defect Structure of $\text{SrCu}_3\text{Ti}_4\text{O}_{12}$ . Chemistry of Materials, 2004, 16, 5223-5225.	6.7	253
5	Enhanced Thermoelectric Performance of Synthetic Tetrahedrites. Chemistry of Materials, 2014, 26, 2047-2051.	6.7	170
6	Mn <sup>3+</sup> in Trigonal Bipyramidal Coordination: A New Blue Chromophore. Journal of the American Chemical Society, 2009, 131, 17084-17086.	13.7	151
7	A High-Rate Aqueous Proton Battery Delivering Power Below 78 °C via an Unfrozen Phosphoric Acid. Advanced Energy Materials, 2020, 10, 2000968.	19.5	134
8	Studies on solid solutions based on layered honeycomb-ordered phases P <sub>2</sub> -Na <sub>2</sub> M <sub>2</sub> TeO <sub>6</sub> (M=Co, Ni, Zn). Journal of Solid State Chemistry, 2012, 196, 225-231.	2.9	66
9	Dielectric and polarization experiments in high loss dielectrics: A word of caution. Applied Physics Letters, 2008, 93, .	3.3	65
10	New Layered Compounds with Honeycomb Ordering: Li <sub>3</sub> Ni <sub>2</sub> BiO <sub>6</sub> , Li <sub>3</sub> NiMg <sub>2</sub> BiO <sub>6</sub> (Mg = Mg, Cu, Zn), and the Delafossite Ag <sub>3</sub> Ni <sub>2</sub> BiO <sub>6</sub> . Inorganic Chemistry, 2012, 51, 5377-5385.	4.0	60
11	Solid solution studies of layered honeycomb-ordered phases O <sub>3</sub> -Na <sub>3</sub> M <sub>2</sub> SbO <sub>6</sub> (M=Cu, Mg, Ni, Zn). Journal of Solid State Chemistry, 2013, 201, 178-185.	2.9	57
12	New Oxides Showing an Intense Blue Color Based on Mn <sup>3+</sup> in Trigonal-Bipyramidal Coordination. Inorganic Chemistry, 2011, 50, 10-12.	4.0	45
13	New Oxides Showing an Intense Orange Color Based on Fe <sup>3+</sup> in Trigonal-Bipyramidal Coordination. Inorganic Chemistry, 2011, 50, 5858-5860.	4.0	41
14	Frustrated spin one on a diamond lattice in $\text{NiRh}_2\text{O}_4$ . Physical Review Materials, 2018, 2, .	2.4	34
15	From Serendipity to Rational Design: Tuning the Blue Trigonal Bipyramidal Mn <sup>3+</sup> Chromophore to Violet and Purple through Application of Chemical Pressure. Inorganic Chemistry, 2016, 55, 9798-9804.	4.0	30
16	Inorganic pigments with transition metal chromophores at trigonal bipyramidal coordination: Y(In,Mn)O <sub>3</sub> blues and beyond. Journal of Solid State Chemistry, 2019, 272, 9-20.	2.9	30
17	Spin order and dynamics in the diamond-lattice Heisenberg antiferromagnets $\text{CuRh}_2\text{O}_4$ and $\text{CoRh}_2\text{O}_4$ . Physical Review Materials, 2018, 2, .	3.2	29
18	Structural studies of CaAl <sub>12</sub> O <sub>19</sub> , SrAl <sub>12</sub> O <sub>19</sub> , La <sub>2/3</sub> Al <sub>12</sub> TiO <sub>19</sub> , and CaAl <sub>10</sub> NiTiO <sub>19</sub> with the hibonite structure; indications of an unusual type of ferroelectricity. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2016, 71, 475-484.	0.7	26

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19	First Observation of Electronic Conductivity in Mixed-Valence Tellurium Oxides. <i>Chemistry of Materials</i> , 2009, 21, 5572-5574.	6.7	25
20	True Composition and Structure of Hexagonal $\text{YAlO}_3$ , Actually $\text{Y}_3\text{Al}_3\text{O}_8\text{CO}_3$ . <i>Inorganic Chemistry</i> , 2015, 54, 837-844.	4.0	25
21	Synthesis and characterization of $\text{Sn}^{2+}$ oxides with the pyrochlore structure. <i>Materials Research Bulletin</i> , 2008, 43, 1943-1948.	5.2	23
22	Tin(II) Doped Anatase ( $\text{TiO}_2$ ) Nanoparticles: A Potential Route to "Greener" Yellow Pigments. <i>Chemistry - an Asian Journal</i> , 2009, 4, 881-885.	3.3	22
23	Synthesis and characterization of $\text{Sr}_{2-1-x}\text{M}_x\text{O}_4$ (M=Ti, Fe, Co) solid solutions. <i>Journal of Solid State Chemistry</i> , 2012, 190, 257-263.	2.9	21
24	Magnetic Properties and Electronic Structure of Manganese-Based Blue Pigments: A High-Frequency and -Field EPR Study. <i>Inorganic Chemistry</i> , 2015, 54, 9040-9045.	4.0	21
25	Structural Studies and Electrical Properties of Cs/Al/Te/O Phases with the Pyrochlore Structure. <i>Inorganic Chemistry</i> , 2011, 50, 5747-5754.	4.0	19
26	Stability of the ferromagnetic ground state of $\text{La}_{2-x}\text{MnNiO}_6$ against large compressive stress. <i>Physical Review B</i> , 2011, 84.	3.2	19
27	Determination of the Local Environment of $\text{Mn}^{3+}$ and $\text{In}^{3+}$ in the $\text{YInO}_3$ $\text{YMnO}_3$ Solid Solution, Which Exhibits an Intense Blue Color. <i>Chemistry of Materials</i> , 2016, 28, 6050-6053.	6.7	18
28	Covalency-driven Structural Evolution in the Polar Pyrochlore Series $\text{Cd}_2\text{Nb}_2\text{O}_7$ $\text{S}_x$ . <i>Chemistry of Materials</i> , 2019, 31, 7626-7637.	6.7	18
29	Lattice crossover and mixed valency in the $\text{LaCo}_{1-x}\text{Rh}_x\text{O}_3$ solid solution. <i>Journal of Solid State Chemistry</i> , 2010, 183, 1388-1393.	2.9	16
30	Hibonite Blue: A New Class of Intense Inorganic Blue Colorants. <i>ACS Omega</i> , 2019, 4, 22114-22118.	3.5	15
31	Structure and Properties of Ir-Containing Oxides with Large Spin-Orbit Coupling: $\text{Ba}_2\text{In}_2\text{Ir}_5\text{O}_{25}$ . <i>Inorganic Chemistry</i> , 2016, 55, 2748-2754.	4.0	12
32	$\text{Bi}_2\text{Ca}_x\text{Ir}_2\text{O}_{6+y}$ Pyrochlore Phases: Structure and Properties with Varied Ir Oxidation State from 3.9+ to 4.3+. <i>Inorganic Chemistry</i> , 2017, 56, 4706-4715.	4.0	12
33	Partial charge ordering in the mixed-valent compound $(\text{Bi}_6\text{O}_5)\text{Rh}_{83}\text{Rh}_{44}\text{O}_{24}$ . <i>Journal of Solid State Chemistry</i> , 2007, 180, 3463-3468.	2.9	11
34	$\text{AAe}_2\text{Rh}_6\text{O}_{12}$ : A New Family of Rhodium Oxides Exhibiting High Thermopower Coupled with High Electrical Conductivity. <i>Chemistry of Materials</i> , 2009, 21, 994-999.	6.7	11
35	$\text{Bi}_2/3\text{Ce}_1/3\text{Rh}_2\text{O}_5$ : A new mixed-valent Rh oxide with hitherto unknown structure. <i>Journal of Solid State Chemistry</i> , 2008, 181, 56-60.	2.9	10
36	Electrical and magnetic properties of new rhodium perovskites: $\text{La}_2\text{MRhO}_6$ , M=Cr, Fe, Cu. <i>Materials Research Bulletin</i> , 2010, 45, 460-463.	5.2	10

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37	New $A_2/3xRh_2O_4$ Compounds with the $CaFe_2O_4$ Structure Where A Is a Rare Earth or Bi. Inorganic Chemistry, 2009, 48, 204-208.	4.0	9
38	Structural Investigation of the Substituted Pyrochlore $AgSbO_3$ through Total Scattering Techniques. Inorganic Chemistry, 2013, 52, 11530-11537.	4.0	9
39	Possible Verwey-Type Transition in $Pb_3Rh_7O_{15}$ . Chemistry of Materials, 2009, 21, 2300-2305.	6.7	8
40	Synthesis and crystal structure of two new cerium rhodium oxides: $Ce_2/3xRh_3+2O_4$ ( $x \approx 1/40.12$ ) with Ce mixed valency and $Ce_4+Rh_3+2O_5$ . Journal of Solid State Chemistry, 2011, 184, 1381-1386.	2.9	8
41	$Os_4+$ Instability in the Pyrochlore Structure: $Tl_2xBi_xOs_2O_7y$ . Inorganic Chemistry, 2020, 59, 1227-1233.	4.0	8
42	Advances in the development and growth of functional materials: Toward the paradigm of materials by design. MRS Bulletin, 2012, 37, 682-690.	3.5	7
43	Tetrahedral $Mn^{4+}$ as chromophore in sillenite-type compounds. Journal of Solid State Chemistry, 2020, 289, 121463.	2.9	7
44	Synthesis and electronic properties of $LnRhAsO$ and $LnIrAsO$ compositions. Journal of Solid State Chemistry, 2011, 184, 1972-1976.	2.9	6
45	Local Moment Instability of Os in Honeycomb $Li_2.15Os_0.85O_3$ . Scientific Reports, 2018, 8, 6605.	3.3	6
46	Influence of Structural Disorder on Hollandites $A_xRu_4O_8$ ( $A = K, Rb, Rb_1-xNa_x$ ). Inorganic Chemistry, 2016, 55, 3462-3467.	4.0	5
47	From Occupied Voids to Nanoprecipitates: Synthesis of Skutterudite Nanocomposites in situ. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 1495-1502.	1.2	4
48	The effect of iridium oxidation state on the electronic properties of perovskite-type solid solutions: $Ba_2LaInIrO_6$ and $BaLaInCaIrO_6$ . Journal of Solid State Chemistry, 2017, 247, 53-59.	2.9	4
49	Influence of Alkaline-Earth-Metal Substitutions on the Bismuth Ruthenate Structure: $Bi_2A_2xRu_2O_6O_1y$ ( $A^{2+} = Mg, Ca, Sr$ ). Inorganic Chemistry, 2020, 59, 14141-14151.		4
50	Effect of oxygen concentration on the structural and magnetic properties of $LaRh_{1/2}Mn_{1/2}O_3$ thin films. Journal of Applied Physics, 2009, 105, .	2.5	3
51	Compositionally controlled metal-insulator transition in $Tl_2xIn_xTeO_6$ . Journal of Solid State Chemistry, 2011, 184, 877-880.	2.9	3
52	Charge transfer instability in a mixed Ir/Rh honeycomb lattice in $Li_2Ir_1-xRh_xO_3$ solid solution. Solid State Sciences, 2016, 61, 232-238.	3.2	3
53	Structural and electronic properties of the first iridium containing mixed B-site spinel oxide: $Cu_4O_{10}$ . Physical Review Materials, 2021, 5, .		3
54	Undulating Layers in a New Rhodate Network: Structure of $Bi_{1.4}CuORh_5O_{10}$ . Inorganic Chemistry, 2011, 50, 10397-10401.	4.0	2

#	ARTICLE	IF	CITATIONS
55	Synthesis, magnetic and thermoelectric properties of Rh <sub>2</sub> MO <sub>6</sub> (M=Mo, Te, and W) with rutile-related structure. Materials Research Bulletin, 2011, 46, 2016-2020.	5.2	2
56	Attrition-enhanced nanocomposite synthesis of indium-filled, iron-substituted skutterudite antimonides for improved performance thermoelectrics. Materials Research Society Symposia Proceedings, 2013, 1490, 27-32.	0.1	2
57	Structural investigation and selected properties of Zn <sub>2.5</sub> ~xCoxVMoO <sub>8</sub> lyonsites. Journal of Solid State Chemistry, 2018, 266, 155-160.	2.9	2
58	Mixed Valent Rhodates. Materials Research Society Symposia Proceedings, 2008, 1148, 1.	0.1	1
59	Vacancy Tuning in Li,V-Substituted Lyonsites. Solvent Extraction and Ion Exchange, 2020, 38, 656-680.	2.0	1
60	Iridium valence variation and carrier sign tuning in (Ca,Ba) <sub>x</sub> La <sub>2</sub> ~xCu <sub>l</sub> O <sub>6</sub> double perovskites. Physical Review Materials, 2021, 5, .	2.4	1
61	Synthesis and properties of novel inorganic red chromophore based on Cr <sup>4+</sup> in tetrahedral coordination in Bi <sub>24</sub> Al <sub>2</sub> -Cr O <sub>39</sub> . Ceramics International, 2022, 48, 7850-7854.	4.8	1
62	Growth, optical and magnetic behavior of YMn <sub>0.35</sub> In <sub>0.65</sub> O <sub>3</sub> thin film. AIP Advances, 2012, 2, 022158.	1.3	0
63	Crystal structure refinement of magnesium zinc divanadate, MgZnV <sub>2</sub> O <sub>7</sub> , from powder X-ray diffraction data. Acta Crystallographica Section E: Crystallographic Communications, 2021, 77, 588-591.	0.5	0