

# Thirumany Sritharan

## List of Publications by Year in descending order

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96  
papers

3,890  
citations

109321

35  
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128289

60  
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97  
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97  
docs citations

97  
times ranked

5607  
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-Symmetry Monoclinic Phases and Polarization Rotation Path Mediated by Epitaxial Strain in Multiferroic BiFeO <sub>3</sub> Thin Films. <i>Advanced Functional Materials</i> , 2011, 21, 133-138.	14.9	229
2	Nonlinear dielectric thin films for high-power electric storage with energy density comparable with electrochemical supercapacitors. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011, 58, 1968-1974.	3.0	188
3	Investigating the Multiple Roles of Polyvinylpyrrolidone for a General Methodology of Oxide Encapsulation. <i>Journal of the American Chemical Society</i> , 2013, 135, 9099-9110.	13.7	181
4	Interfacial enhancement of carbon fiber composites by poly(amido amine) functionalization. <i>Composites Science and Technology</i> , 2013, 74, 37-42.	7.8	169
5	Chemically and uniformly grafting carbon nanotubes onto carbon fibers by poly(amidoamine) for enhancing interfacial strength in carbon fiber composites. <i>Journal of Materials Chemistry</i> , 2012, 22, 5928.	6.7	168
6	Large strain and high energy storage density in orthorhombic perovskite (Pb <sub>0.97</sub> La <sub>0.02</sub> )(Zr <sub>1-x</sub> Sn <sub>x</sub> Ti <sub>y</sub> )O <sub>3</sub> antiferroelectric thin films. <i>Applied Physics Letters</i> , 2010, 97, 142902.	3.3	164
7	Interface reaction between copper and molten tin-lead solders. <i>Acta Materialia</i> , 2001, 49, 2481-2489.	7.9	154
8	Superexchange Effects on Oxygen Reduction Activity of Edge-Shared [Co <sub>x</sub> Mn <sub>1-x</sub> O <sub>6</sub> ] Octahedra in Spinel Oxide. <i>Advanced Materials</i> , 2018, 30, 1705407.	21.0	142
9	Iron Pyrite Thin Film Counter Electrodes for Dye-Sensitized Solar Cells: High Efficiency for Iodine and Cobalt Redox Electrolyte Cells. <i>ACS Nano</i> , 2014, 8, 10597-10605.	14.6	138
10	Ultrathin MnO <sub>2</sub> nanoflakes as efficient catalysts for oxygen reduction reaction. <i>Chemical Communications</i> , 2014, 50, 7885.	4.1	113
11	A Multisite Strategy for Enhancing the Hydrogen Evolution Reaction on a Nano-Pd Surface in Alkaline Media. <i>Advanced Energy Materials</i> , 2017, 7, 1701129.	19.5	108
12	Valence Change Ability and Geometrical Occupation of Substitution Cations Determine the Pseudocapacitance of Spinel Ferrite XFe <sub>2</sub> O <sub>4</sub> (X = Mn, Co, Ni, Fe). <i>Chemistry of Materials</i> , 2016, 28, 4129-4133.	6.7	98
13	Influence of titanium to boron ratio on the ability to grain refine aluminium-silicon alloys. <i>Journal of Materials Processing Technology</i> , 1997, 63, 585-589.	6.3	78
14	Nanoscale domains in strained epitaxial BiFeO <sub>3</sub> thin Films on LaSrAlO <sub>4</sub> substrate. <i>Applied Physics Letters</i> , 2010, 96, 252903.	3.3	75
15	Multiferroic properties of sputtered BiFeO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	67
16	Tuning the interfacial property of hierarchical composites by changing the grafting density of carbon nanotube using 1,3-propodiamine. <i>Composites Science and Technology</i> , 2013, 85, 36-42.	7.8	67
17	Ruthenium Barrier/Seed Layer for Cu/Low- $\hat{\rho}$ Metallization. <i>Journal of the Electrochemical Society</i> , 2006, 153, J41.	2.9	58
18	Origin of Photocurrent Losses in Iron Pyrite (FeS <sub>2</sub> ) Nanocubes. <i>ACS Nano</i> , 2016, 10, 4431-4440.	14.6	56

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19	Ordering and grain growth in nanocrystalline Fe <sub>75</sub> Si <sub>25</sub> alloy. Acta Materialia, 2005, 53, 1233-1239.	7.9	54
20	Production and annealing of nanocrystalline Fe-Si and Fe-Si-Al alloy powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 371, 210-216.	5.6	53
21	The creep of Beta-Cobalt at low stresses. Acta Metallurgica, 1979, 27, 1293-1300.	2.1	52
22	Tensile fracture of tin-lead solder joints in copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 379, 277-285.	5.6	50
23	Microstructural, thermal and magnetic properties of amorphous/nanocrystalline FeCrMnN alloys prepared by mechanical alloying and subsequent heat treatment. Journal of Alloys and Compounds, 2009, 480, 617-624.	5.5	50
24	Study of strain effect on in-plane polarization in epitaxial BiFeO <sub>3</sub> thin films using planar electrodes. Physical Review B, 2012, 86, .	3.2	49
25	Scale-Up of BiVO <sub>4</sub> Photoanode for Water Splitting in a Photoelectrochemical Cell: Issues and Challenges. Energy Technology, 2018, 6, 100-109.	3.8	49
26	Low symmetry monoclinic MC phase in epitaxial BiFeO <sub>3</sub> thin films on LaSrAlO <sub>4</sub> substrates. Applied Physics Letters, 2010, 97, 242903.	3.3	46
27	Phosphate tuned copper electrodeposition and promoted formic acid selectivity for carbon dioxide reduction. Journal of Materials Chemistry A, 2017, 5, 11905-11916.	10.3	46
28	Abnormal Poisson's ratio and Linear Compressibility in Perovskite Materials. Advanced Materials, 2012, 24, 4170-4174.	21.0	45
29	Recent progress in iron oxide based photoanodes for solar water splitting. Journal Physics D: Applied Physics, 2018, 51, 473002.	2.8	44
30	Cyclic loading as an extended nanoindentation technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 14-18.	5.6	42
31	Effects of processing parameters on the performance of Al grain refinement master alloys Al-Ti and Al-Ti-B in small ingots. Journal of Materials Processing Technology, 1997, 66, 253-257.	6.3	41
32	Adhesion study of low-k/Si system using 4-point bending and nanoscratch test. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 121, 193-198.	3.5	40
33	M <sub>3</sub> B phase in BiFeO <sub>3</sub> epitaxial thin films on a PrScO <sub>3</sub>	3.2	40
34	The Self-Passivation Mechanism in Degradation of BiVO <sub>4</sub> Photoanode. IScience, 2019, 19, 976-985.	4.1	40
35	Morphology of $\hat{\Gamma}^2$ -AlFeSi intermetallic in Al-7Si alloy castings. Materials Science and Technology, 1998, 14, 738-742.	1.6	38
36	Improving Photocatalytic H <sub>2</sub> Evolution of TiO <sub>2</sub> via Formation of {001} Quasi-Heterojunctions. Journal of Physical Chemistry C, 2013, 117, 22894-22902.	3.1	38

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37	Improved Charge Separation in WO <sub>3</sub> /CuWO <sub>4</sub> Composite Photoanodes for Photoelectrochemical Water Oxidation. <i>Materials</i> , 2016, 9, 348.	2.9	36
38	Strain-driven phase transitions and associated dielectric/piezoelectric anomalies in BiFeO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	35
39	Coexistence of ferroelectric vortex domains and charged domain walls in epitaxial BiFeO <sub>3</sub> film on (110)O GdScO <sub>3</sub> substrate. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	33
40	The creep of type 304 stainless steel at low stresses. <i>Acta Metallurgica</i> , 1980, 28, 1633-1639.	2.1	31
41	A feature of the reaction between Al and SiC particles in an MMC. <i>Materials Characterization</i> , 2001, 47, 75-77.	4.4	30
42	Effects of solid-state annealing on the interfacial intermetallics between tin-lead solders and copper. <i>Journal of Electronic Materials</i> , 2003, 32, 939-947.	2.2	30
43	The effect of nitrogen on the glass-forming ability and micro-hardness of Fe-Cr-Mn-N amorphous alloys prepared by mechanical alloying. <i>Materials Chemistry and Physics</i> , 2009, 118, 71-75.	4.0	28
44	Thin film aluminum-gold interface interactions. <i>Scripta Materialia</i> , 2007, 56, 549-552.	5.2	27
45	Phenomena in interrupted tensile tests of heat treated aluminium alloy 6061. <i>Acta Materialia</i> , 1997, 45, 3155-3161.	7.9	26
46	Characterization of Fe-Cr-Mn-N amorphous powders with a wide supercooled liquid region developed by mechanical alloying. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 1135-1142.	5.6	26
47	New insights into the photocatalytic activity of 3-D core-shell P25@silica nanocomposites: impact of mesoporous coating. <i>Dalton Transactions</i> , 2017, 46, 4994-5002.	3.3	26
48	Study of piezoelectric, magnetic and magnetoelectric measurements on SrBi <sub>3</sub> Nb <sub>2</sub> FeO <sub>12</sub> ceramic. <i>Ceramics International</i> , 2004, 30, 1431-1433.	4.8	24
49	An XPS study of Al <sub>2</sub> Au and AlAu <sub>4</sub> intermetallic oxidation. <i>Applied Surface Science</i> , 2007, 253, 6217-6221.	6.1	24
50	Study of Ru barrier failure in the Cu/Ru/Si system. <i>Journal of Materials Research</i> , 2007, 22, 2505-2511.	2.6	23
51	Oxidation of Al-Au intermetallics and its consequences studied by x-ray photoelectron spectroscopy. <i>Journal of Materials Research</i> , 2008, 23, 1371-1382.	2.6	23
52	Domain structure and in-plane switching in a highly strained Bi <sub>0.9</sub> Sm <sub>0.1</sub> FeO <sub>3</sub> film. <i>Applied Physics Letters</i> , 2011, 99, 222904.	3.3	22
53	Periodic elastic nanodomains in ultrathin tetragonal-like BiFeO <sub>3</sub> films. <i>Physical Review B</i> , 2013, 88, .	3.2	22
54	Scientific and Technological Assessment of Iron Pyrite for Use in Solar Devices. <i>Energy Technology</i> , 2018, 6, 8-20.	3.8	21

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55	Samarium modified strontium bismuth niobate: Synthesis and ferroelectro-magnetic property evaluation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 123, 222-226.	3.5	20
56	Evolution of nanoplate morphology, structure and chemistry during synthesis of pyrite by a hot injection method. <i>RSC Advances</i> , 2014, 4, 16489.	3.6	19
57	Processing and study of dielectric and ferroelectric nature of BiFeO <sub>3</sub> modified SrBi <sub>2</sub> Nb <sub>2</sub> O <sub>9</sub> . <i>Ceramics International</i> , 2004, 30, 1427-1430.	4.8	18
58	Microstructural Evolution of Annealed Ruthenium Nitrogen Films. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, P15.	2.2	18
59	Influence of oxygen partial pressure on magnetron sputtered Sr <sub>0.8</sub> Nd <sub>0.3</sub> Bi <sub>2.5</sub> Ta <sub>2</sub> O <sub>9+x</sub> ferroelectric thin films. <i>Journal of Alloys and Compounds</i> , 2008, 457, 549-554.	5.5	18
60	On the transition between dislocation and diffusion creep. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1980, 41, 871-882.	0.6	17
61	Electromechanical properties and fatigue of antiferroelectric (Pb, La) (Zr, Sn, Ti)O <sub>3</sub> thin film cantilevers fabricated by micromachining. <i>Sensors and Actuators A: Physical</i> , 2012, 187, 127-131.	4.1	17
62	Ferroelastic Strain Induced Antiferroelectric Ferroelectric Phase Transformation in Multilayer Thin Film Structures. <i>Advanced Functional Materials</i> , 2012, 22, 4159-4164.	14.9	16
63	Synthesis of aluminium-iron-silicon intermetallics by reaction of elemental powders. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 286, 209-217.	5.6	15
64	Interface transformations in thin film aluminium-gold diffusion couples. <i>Thin Solid Films</i> , 2007, 515, 5454-5461.	1.8	15
65	Textured growth of Cu/Sn intermetallic compounds. <i>Journal of Electronic Materials</i> , 2002, 31, 1250-1255.	2.2	11
66	Self-propagating high temperature synthesis of AlFeSi intermetallic compound. <i>Intermetallics</i> , 2003, 11, 279-281.	3.9	11
67	Mechanochemical activation of strontium bismuth tantalate synthesis. <i>Scripta Materialia</i> , 2005, 53, 1197-1199.	5.2	11
68	Electric-field control of magnetic properties of CoFe <sub>2</sub> O <sub>4</sub> films on Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> PbTiO <sub>3</sub> substrate. <i>Thin Solid Films</i> , 2012, 522, 420-424.	1.8	11
69	Creep of type 316 stainless steel at low stresses. <i>Metal Science</i> , 1981, 15, 365-368.	0.7	10
70	Properties of hemispherical cups drawn using a flexible tool. <i>Journal of Materials Processing Technology</i> , 2003, 134, 310-317.	6.3	10
71	Synthesis of ternary intermetallics by exothermic reaction. <i>Journal of Materials Processing Technology</i> , 2001, 113, 469-473.	6.3	9
72	Nd-substituted SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> ferroelectric thin films prepared by radio frequency magnetron sputtering. <i>Thin Solid Films</i> , 2007, 515, 8371-8375.	1.8	9

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73	Nanoscale phase separation in quasi-uniaxial and biaxial strained multiferroic thin films. Applied Physics Letters, 2011, 99, 132905.	3.3	9
74	Temperature-driven evolution of hierarchical nanodomain structure in tetragonal-like BiFeO <sub>3</sub> films. Applied Physics Letters, 2012, 100, .	3.3	9
75	Magnetron Sputtered nc-Al <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> Nanocomposite Thin Films for Nonvolatile Memory Application. Journal of Nanoscience and Nanotechnology, 2009, 9, 4116-4120.	0.9	8
76	On the applicability of a phenomenological relationship to creep at low stresses and intermediate temperatures. Materials Science and Engineering, 1983, 61, 1-5.	0.1	7
77	Effects of ternary alloying on mechano-synthesis and nano-crystal stability of an iron-silicon alloy. Journal of Alloys and Compounds, 2005, 390, 82-87.	5.5	7
78	Exothermic reactions in powder mixtures of Al, Fe and Si. Materials Letters, 2001, 51, 455-460.	2.6	6
79	Reaction Kinetics for Lead-Free 0.94(K <sub>0.5</sub> Na <sub>0.5</sub> )NbO <sub>3</sub> –0.06LiNbO <sub>3</sub> Ceramic Synthesis with Ultrasonic Irradiation. International Journal of Applied Ceramic Technology, 2015, 12, E43.	2.1	6
80	Effect of porosity and adhesion promoter layer on adhesion energy of nanoporous inorganic low- $\kappa$ . Thin Solid Films, 2006, 504, 213-217.	1.8	5
81	Synthesis of a new electroceramic by replacement of Bi in strontium bismuth niobate. Journal of Electroceramics, 2006, 16, 321-325.	2.0	4
82	Reduction of crystallization temperature of the Aurivillius phase in Nd-doped SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> thin films via substrate bias. Thin Solid Films, 2009, 517, 2633-2637.	1.8	4
83	Magneto-optical Kerr effect investigation on magnetoelectric coupling in ferromagnetic/antiferroelectric multilayer thin film structures. Applied Physics Letters, 2012, 101, .	3.3	4
84	Twin-microstructure enhanced magnetoresistance in La <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> oxides. Solid State Communications, 2006, 139, 506-510.	1.9	3
85	Adhesion study of tetra methyl cyclo tetra siloxanes (TMCTS) and tri methyl silane (3MS)-based low- $\kappa$ films. Microelectronic Engineering, 2005, 81, 35-43.	2.4	2
86	Further comments on the interpretation of creep data obtained at low stresses and intermediate temperatures. Materials Science and Engineering, 1985, 69, L1-L3.	0.1	1
87	Effect of Al-Ti and Al-B master alloy addition on the grain refinement of stationary arc-melted Al weld. Journal of Materials Science Letters, 1996, 15, 1886.	0.5	1
88	Magnetization switching in multiferroic ceramics by oxygen vacancies. Proceedings of SPIE, 2008, , .	0.8	1
89	A Source of Error in Photoanode Evaluation. Joule, 2019, 3, 305-310.	24.0	1
90	Reaction Sintering of an Aluminium-Based Ternary Intermetallic and its Properties. Materials Science Forum, 2003, 426-432, 1855-1860.	0.3	0

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91	Isolated and Grouped Co Spins in Polycrystalline Zn <sub>1-x</sub> Co <sub>x</sub> O Oxides. Advances in Science and Technology, 2006, 52, 27-30.	0.2	0
92	Room-temperature Ferromagnetic Zn <sub>0.95</sub> Co <sub>0.05</sub> O Diluted Magnetic Semiconducting Thin Films by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2006, 928, 1.	0.1	0
93	On the origin of photocarrier losses in Iron Pyrite nanocubes: Charge carrier dynamics and electrical transport study. , 2016, , .		0
94	Formation of Si Nanorods and Discrete Nanophases by Axial Diffusion of Si from Substrate into Au and AuPt Nanoalloy Nanorods. Nanomaterials, 2020, 10, 68.	4.1	0
95	The Self-Passivation Mechanism in Degradation of BiVO <sub>4</sub> Photoanode. SSRN Electronic Journal, 0, , .	0.4	0
96	Effect of Ta nanobarrier in magnetron sputtering of Nd-doped SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> thin films. Journal of Nanoscience and Nanotechnology, 2008, 8, 2618-22.	0.9	0