

# Subramshu S Bhattacharya

## List of Publications by Citations

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56  
papers

1,607  
citations

17  
h-index

39  
g-index

58  
ext. papers

2,211  
ext. citations

5.2  
avg, IF

4.85  
L-index

#	Paper	IF	Citations
56	High entropy oxides for reversible energy storage. <i>Nature Communications</i> , <b>2018</b> , 9, 3400	17.4	299
55	High-Entropy Oxides: Fundamental Aspects and Electrochemical Properties. <i>Advanced Materials</i> , <b>2019</b> , 31, e1806236	24	197
54	Multicomponent equiatomic rare earth oxides. <i>Materials Research Letters</i> , <b>2017</b> , 5, 102-109	7.4	148
53	Nanocrystalline multicomponent entropy stabilised transition metal oxides. <i>Journal of the European Ceramic Society</i> , <b>2017</b> , 37, 747-754	6	146
52	Multicomponent equiatomic rare earth oxides with a narrow band gap and associated praseodymium multivalency. <i>Dalton Transactions</i> , <b>2017</b> , 46, 12167-12176	4.3	128
51	Multi-anionic and -cationic compounds: new high entropy materials for advanced Li-ion batteries. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2433-2442	35.4	121
50	High entropy oxides as anode material for Li-ion battery applications: A practical approach. <i>Electrochemistry Communications</i> , <b>2019</b> , 100, 121-125	5.1	73
49	Size effect on the lattice parameters of nanocrystalline anatase. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 191906.4	6.4	58
48	On the homogeneity of high entropy oxides: An investigation at the atomic scale. <i>Scripta Materialia</i> , <b>2019</b> , 166, 58-63	5.6	53
47	Synthesis, characterization and sintering of nanocrystalline titania powders produced by chemical vapour synthesis. <i>Journal Physics D: Applied Physics</i> , <b>2006</b> , 39, 2248-2254	3	31
46	Chemical vapor deposition of diamond coatings on tungsten carbide (WC/Co) riveting inserts. <i>International Journal of Refractory Metals and Hard Materials</i> , <b>2013</b> , 37, 117-120	4.1	24
45	Role of intermediate 4f states in tuning the band structure of high entropy oxides. <i>APL Materials</i> , <b>2020</b> , 8, 051111	5.7	22
44	Lithium containing layered high entropy oxide structures. <i>Scientific Reports</i> , <b>2020</b> , 10, 18430	4.9	22
43	Integration of perovskite PZT thin films on diamond substrate without buffer layer. <i>Journal Physics D: Applied Physics</i> , <b>2012</b> , 45, 202001	3	19
42	Improvement of mechanical properties of aluminium-copper alloy (AA2219) GTA welds by Sc addition. <i>Science and Technology of Welding and Joining</i> , <b>2008</b> , 13, 146-158	3.7	19
41	Gassing Behavior of High-Entropy Oxide Anode and Oxyfluoride Cathode Probed Using Differential Electrochemical Mass Spectrometry. <i>Batteries and Supercaps</i> , <b>2020</b> , 3, 361-369	5.6	18
40	Spark Plasma Welding of Austenitic Stainless Steel AISI 304L to Commercially Pure Titanium. <i>Transactions of the Indian Institute of Metals</i> , <b>2015</b> , 68, 289-297	1.2	17

39	Nanocrystalline diamond coatings on the interior of WC-Co dies for drawing carbon steel tubes: Enhancement of tube properties. <i>Diamond and Related Materials</i> , <b>2014</b> , 50, 33-37	3.5	14
38	A comparative study on wear behavior of TiN and diamond coated WC-Co substrates against hypereutectic AlSi alloys. <i>Applied Surface Science</i> , <b>2012</b> , 261, 520-527	6.7	14
37	Role of size, alio-/multi-valency and non-stoichiometry in the synthesis of phase-pure high entropy oxide (Co,Cu,Mg,Na,Ni,Zn)O. <i>Dalton Transactions</i> , <b>2020</b> , 49, 7123-7132	4.3	13
36	Microstructure and mechanical properties of Sc modified AlTi alloy (AA2219) electron beam welds. <i>Science and Technology of Welding and Joining</i> , <b>2008</b> , 13, 415-421	3.7	12
35	Antiferromagnetism in a nanocrystalline high entropy oxide (Co,Cu,Mg,Ni,Zn)O: Magnetic constituents and surface anisotropy leading to lattice distortion. <i>Acta Materialia</i> , <b>2020</b> , 200, 526-536	8.4	12
34	Mechanochemical synthesis of novel rutile-type high entropy fluorides for electrocatalysis. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 8998-9009	13	11
33	On the hot tensile deformation behavior of an AISI 316LN stainless steel. <i>Transactions of the Indian Institute of Metals</i> , <b>2009</b> , 62, 41-48	1.2	10
32	Adhesive Microcrystalline Diamond Coating on Surface Modified Non-Carbide Forming Substrate Using Hot Filament CVD. <i>Materials Express</i> , <b>2012</b> , 2, 115-120	1.3	10
31	High entropy spinel metal oxide (CoCrFeMnNi)3O4 nanoparticles as a high-performance supercapacitor electrode material. <i>Journal of Energy Storage</i> , <b>2021</b> , 42, 103004	7.8	10
30	Effect of process parameters on the chemical vapour synthesis of nanocrystalline titania. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 155313	3	8
29	Model for grain boundary sliding and its relevance to optimal structural superplasticity Part 5: A unique numerical solution and its reliability. <i>Materials Science and Technology</i> , <b>1999</b> , 15, 673-682	1.5	8
28	Effect of defect states in the optical and magnetic properties of nanocrystalline NiO synthesised in a single step by an aerosol process. <i>Ceramics International</i> , <b>2020</b> , 46, 5671-5680	5.1	8
27	On the power law description of low-stress uni-axial steady-state high-homologous-temperature deformation. <i>Mechanics of Materials</i> , <b>2015</b> , 91, 177-193	3.3	7
26	Growth and characterization of diamond particles, diamond films, and CNT-diamond composite films deposited simultaneously by hot filament CVD. <i>Journal of Materials Science</i> , <b>2015</b> , 50, 144-156	4.3	7
25	Effect of temperature on the stability of diamond particles and continuous thin films by Raman imaging. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	7
24	A generic analysis for high-temperature power-law deformation: the case of linear ln (strain rate)-ln(stress) relationship. <i>Journal of Materials Science</i> , <b>1995</b> , 30, 5850-5866	4.3	7
23	Effect of Process Parameters on the Characteristics of Nanocrystalline Alumina Particles Synthesized by Solution Combustion Process. <i>Transactions of the Indian Institute of Metals</i> , <b>2015</b> , 68, 147-151	1.2	5
22	High-Entropy Oxides: Fundamental Aspects and Electrochemical Properties (Adv. Mater. 26/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970189	24	5

21	Comprehensive investigation of crystallographic, spin-electronic and magnetic structure of (Co <sub>0.2</sub> Cr <sub>0.2</sub> Fe <sub>0.2</sub> Mn <sub>0.2</sub> Ni <sub>0.2</sub> ) <sub>3</sub> O <sub>4</sub> : Unraveling the suppression of configuration entropy in high entropy oxides. <i>Acta Materialia</i> , <b>2022</b> , 226, 117581	8.4	5
20	Experimental Studies on the Superplastic Forming of Square Shaped Components and Diffusion Bonding Characteristics of Ti <sub>6</sub> Al <sub>4</sub> V Alloy. <i>Transactions of the Indian Institute of Metals</i> , <b>2013</b> , 66, 313-323	1.2	4
19	Development of superplasticity in an AlMg alloy through severe plastic deformation. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2018</b> , 94, 2973-2979	3.2	3
18	Experimental studies on the superplastic forming of square shaped components from sheets of Ti-6Al-4V alloy. <i>Transactions of the Indian Institute of Metals</i> , <b>2011</b> , 64, 21-25	1.2	3
17	Flame spray synthesis of nano lanthanum strontium manganite for solid oxide fuel cell applications. <i>Transactions of the Indian Institute of Metals</i> , <b>2011</b> , 64, 181-184	1.2	3
16	Oxidative electrodeposition of nanocrystalline zinc oxide powders. <i>Journal Physics D: Applied Physics</i> , <b>2009</b> , 42, 115305	3	3
15	High temperature stability of nanocrystalline anatase powders prepared by chemical vapour synthesis under varying process parameters. <i>Applied Surface Science</i> , <b>2011</b> , 257, 6761-6767	6.7	3
14	Effect of gas flow rates on the anatase-rutile transformation temperature of nanocrystalline TiO <sub>2</sub> synthesised by chemical vapour synthesis. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 5572-7	1.3	3
13	High Entropy and Low Symmetry: Triclinic High-Entropy Molybdates. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 115-123	1.2	3
12	Factors influencing phase formation and band gap studies of a novel multicomponent high entropy (Co,Cu,Mg,Ni,Zn) <sub>2</sub> TiO <sub>4</sub> orthotitanate spinel. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 888, 161390	5.7	3
11	A comparative study of the mechanical and tribological properties of intermittently and continuously grown multilayer diamond films on RB-SiC. <i>Diamond and Related Materials</i> , <b>2020</b> , 110, 108140	3.5	2
10	Multicomponent equiatomic lead strontium calcium titanate (Pb Sr Ca) Ti O <sub>3</sub> prepared by reverse co-precipitation. <i>Materialia</i> , <b>2020</b> , 9, 100571	3.2	2
9	Determining role of individual cations in high entropy oxides: Structure and reversible tuning of optical properties. <i>Scripta Materialia</i> , <b>2022</b> , 207, 114273	5.6	2
8	Structural and optical properties of nanocrystalline pure and indium doped tin oxide powders synthesized in a single step by flame spray pyrolysis. <i>Materials Research Express</i> , <b>2017</b> , 4, 075034	1.7	1
7	Synthesis of nanocrystalline alumina (Al <sub>2</sub> O <sub>3</sub> ) particles from an aqueous precursor by flame-assisted spray pyrolysis. <i>Materials Today: Proceedings</i> , <b>2018</b> , 5, 10023-10027	1.4	1
6	Structure, thermal stability, and optical properties of boron modified nanocrystalline anatase prepared by chemical vapor synthesis. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 113526	2.5	1
5	Structural and Electrochemical Investigations on Nanocrystalline High Entropy Spinel Oxides for Battery-Like Supercapacitor Applications. <i>ChemistrySelect</i> , <b>2022</b> , 7, e202104015	1.8	1
4	Spark Plasma Sintering of Graded Dissimilar Metals. <i>Transactions of the Indian Institute of Metals</i> , <b>2019</b> , 72, 1837-1852	1.2	0

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| 3 | Dielectric and ferroelectric properties of multicomponent equiatomic calcium lead strontium titanate (Ca <sub>0.33</sub> Pb <sub>0.33</sub> Sr <sub>0.33</sub> )TiO <sub>3</sub> . <i>Open Ceramics</i> , <b>2021</b> , 6, 100130 | 3.3 | o |
| 2 | Flame Synthesis of Nanocrystalline Zirconia and Yttria Stabilised Zirconia (YSZ) Composites Using Inorganic Precursors. <i>Materials Today: Proceedings</i> , <b>2018</b> , 5, 10000-10006  | 1.4 |   |
| 1 | Coining Test for Evaluation of Tool Performance. <i>Transactions of the Indian Institute of Metals</i> , <b>2011</b> , 64, 359-363  | 1.2 |   |