

# Subramshu S Bhattacharya

## List of Publications by Year in descending order

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58  
papers

2,971  
citations

361045

20  
h-index

168136

53  
g-index

58  
all docs

58  
docs citations

58  
times ranked

2026  
citing authors

#	ARTICLE	IF	CITATIONS
1	High entropy oxides for reversible energy storage. Nature Communications, 2018, 9, 3400.	5.8	643
2	High Entropy Oxides: Fundamental Aspects and Electrochemical Properties. Advanced Materials, 2019, 31, e1806236.	11.1	412
3	Nanocrystalline multicomponent entropy stabilised transition metal oxides. Journal of the European Ceramic Society, 2017, 37, 747-754.	2.8	242
4	Multi-anionic and -cations compounds: new high entropy materials for advanced Li-ion batteries. Energy and Environmental Science, 2019, 12, 2433-2442.	15.6	241
5	Multicomponent equiatomic rare earth oxides. Materials Research Letters, 2017, 5, 102-109.	4.1	236
6	Multicomponent equiatomic rare earth oxides with a narrow band gap and associated praseodymium multivalency. Dalton Transactions, 2017, 46, 12167-12176.	1.6	195
7	High entropy oxides as anode material for Li-ion battery applications: A practical approach. Electrochemistry Communications, 2019, 100, 121-125.	2.3	125
8	On the homogeneity of high entropy oxides: An investigation at the atomic scale. Scripta Materialia, 2019, 166, 58-63.	2.6	90
9	Size effect on the lattice parameters of nanocrystalline anatase. Applied Physics Letters, 2009, 95, 191906.	1.5	66
10	High entropy spinel metal oxide (CoCrFeMnNi)3O4 nanoparticles as a high-performance supercapacitor electrode material. Journal of Energy Storage, 2021, 42, 103004.	3.9	66
11	Lithium containing layered high entropy oxide structures. Scientific Reports, 2020, 10, 18430.	1.6	47
12	Role of intermediate $d$ states in tuning the band structure of high entropy oxides. APL Materials, 2020, 8, .	2.2	47
13	Mechanochemical synthesis of novel rutile-type high entropy fluorides for electrocatalysis. Journal of Materials Chemistry A, 2021, 9, 8998-9009.	5.2	45
14	Comprehensive investigation of crystallographic, spin-electronic and magnetic structure of		

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19	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> , 2020, 200, 526-536.	3.8	28
20	Improvement of mechanical properties of aluminium-copper alloy (AA2219) GTA welds by Sc addition. <i>Science and Technology of Welding and Joining</i> , 2008, 13, 146-158.	1.5	22
21	Integration of perovskite PZT thin films on diamond substrate without buffer layer. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 202001.	1.3	22
22	Spark Plasma Welding of Austenitic Stainless Steel AISI 304L to Commercially Pure Titanium. <i>Transactions of the Indian Institute of Metals</i> , 2015, 68, 289-297.	0.7	22
23	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> , 2014, 50, 33-37.	1.8	21
24	A comparative study on wear behavior of TiN and diamond coated WC-Co substrates against hypereutectic Al-Si alloys. <i>Applied Surface Science</i> , 2012, 261, 520-527.	3.1	17
25	Microstructure and mechanical properties of Sc modified Al-Cu alloy (AA2219) electron beam welds. <i>Science and Technology of Welding and Joining</i> , 2008, 13, 415-421.	1.5	16
26	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> , 2020, 46, 5671-5680.	2.3	15
27	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> , 2021, 888, 161390.	2.8	15
28	Determining role of individual cations in high entropy oxides: Structure and reversible tuning of optical properties. <i>Scripta Materialia</i> , 2022, 207, 114273.	2.6	15
29	Effect of process parameters on the chemical vapour synthesis of nanocrystalline titania. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 155313.	1.3	10
30	On the hot tensile deformation behavior of an AISI 316LN stainless steel. <i>Transactions of the Indian Institute of Metals</i> , 2009, 62, 41-48.	0.7	10
31	Adhesive Microcrystalline Diamond Coating on Surface Modified Non-Carbide Forming Substrate Using Hot Filament CVD. <i>Materials Express</i> , 2012, 2, 115-120.	0.2	10
32	High-Entropy Oxides: High-Entropy Oxides: Fundamental Aspects and Electrochemical Properties (Adv.) <i>Tj ETQq0 0 0 rgBT /Overlock</i>	11.1	10
33	High Entropy and Low Symmetry: Triclinic High-Entropy Molybdates. <i>Inorganic Chemistry</i> , 2021, 60, 115-123.	1.9	10
34	A generic analysis for high-temperature power-law deformation: the case of linear ln (strain) <i>Tj ETQq0 0 0 rgBT /Overlock 10 9 50 142 T</i>	1.7	9
35	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> , 1999, 15, 673-682.	0.8	9
36	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> , 2015, 50, 144-156.	1.7	9

#	ARTICLE	IF	CITATIONS
37	Structural and Electrochemical Investigations on Nanocrystalline High Entropy Spinel Oxides for Battery-Like Supercapacitor Applications. <i>ChemistrySelect</i> , 2022, 7, e202104015.	0.7	9
38	Effect of temperature on the stability of diamond particles and continuous thin films by Raman imaging. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	0.8	8
39	On the power law description of low-stress uni-axial steady-state high-homologous-temperature deformation. <i>Mechanics of Materials</i> , 2015, 91, 177-193.	1.7	8
40	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> , 2015, 68, 147-151.	0.7	5
41	Development of superplasticity in an Al-Mg alloy through severe plastic deformation. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 94, 2973-2979.	1.5	5
42	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> , 2020, 110, 108140.	1.8	5
43	Oxidative electrodeposition of nanocrystalline zinc oxide powders. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 115305.	1.3	4
44	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> , 2009, 9, 5572-5577.	0.9	4
45	Flame spray synthesis of nano lanthanum strontium manganite for solid oxide fuel cell applications. <i>Transactions of the Indian Institute of Metals</i> , 2011, 64, 181-184.	0.7	4
46	Experimental Studies on the Superplastic Forming of Square Shaped Components and Diffusion Bonding Characteristics of Ti-6Al-4V Alloy. <i>Transactions of the Indian Institute of Metals</i> , 2013, 66, 313-323.	0.7	4
47	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> , 2018, 5, 10023-10027.	0.9	4
48	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> , 2011, 64, 21-25.	0.7	3
49	High temperature stability of nanocrystalline anatase powders prepared by chemical vapour synthesis under varying process parameters. <i>Applied Surface Science</i> , 2011, 257, 6761-6767.	3.1	3
50	Multicomponent equiatomic lead strontium calcium titanate (Pb Sr Ca) Ti O <sub>3</sub> prepared by reverse co-precipitation. <i>Materialia</i> , 2020, 9, 100571.	1.3	3
51	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> , 2021, 6, 100130.	1.0	3
52	Factors determining the band gap of a nanocrystalline multicomponent equimolar transition metal based high entropy oxide (Co,Cu,Mg,Ni,Zn)O. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2022, 283, 115847.	1.7	3
53	Structure, thermal stability, and optical properties of boron modified nanocrystalline anatase prepared by chemical vapor synthesis. <i>Journal of Applied Physics</i> , 2009, 105, 113526.	1.1	2
54	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> , 2017, 4, 075034.	0.8	2

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55	Effect of process parameters on the chemical vapour synthesis of nanocrystalline titania. Journal Physics D: Applied Physics, 2009, 42, 079801-079801.	1.3	1
56	Spark Plasma Sintering of Graded Dissimilar Metals. Transactions of the Indian Institute of Metals, 2019, 72, 1837-1852.	0.7	1
57	Coining Test for Evaluation of Tool Performance. Transactions of the Indian Institute of Metals, 2011, 64, 359-363.	0.7	0
58	Flame Synthesis of Nanocrystalline Zirconia and Yttria Stabilised Zirconia (YSZ) Composites Using Inorganic Precursors. Materials Today: Proceedings, 2018, 5, 10000-10006.	0.9	0