

# Joysurya Basu

## List of Publications by Year in descending order

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76  
papers

2,325  
citations

394421

19  
h-index

214800

47  
g-index

78  
all docs

78  
docs citations

78  
times ranked

3084  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution of a self-assembled chessboard nanostructure spinel in a CoFeGaMnZn multicomponent oxide. Philosophical Magazine, 2022, 102, 1121-1135.	1.6	3
2	Structure and interfaces of compositionally graded Li(Ni, Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Td (Mn) Philosophical Magazine, 2022, 102, 1547-1579.	1.6	0
3	Structures, interfaces and thermodynamic stability of nanocrystalline phases in rapidly solidified Fe-based amorphous nanocomposite ribbon, powder and coating. Materials Characterization, 2022, 186, 111815.	4.4	5
4	Synthesis, Characterization and Thermal Stability of Nanocrystalline MgAlMnFeCu Low-Density High-Entropy Alloy. Transactions of the Indian Institute of Metals, 2021, 74, 33-44.	1.5	27
5	Initial texture dependence of nanocrystalline omega phase formation during high pressure torsion of commercially pure titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 802, 140687.	5.6	8
6	Local Composition Migration Induced Microstructural Evolution and Mechanical Properties of Non-equiatomc Fe <sub>40</sub> Cr <sub>25</sub> Ni <sub>15</sub> Al <sub>15</sub> Co <sub>5</sub> Medium-Entropy Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 1777-1789.	2.2	34
7	Homogeneous and polymorphic transformations to ordered intermetallics in nanostructured Au-Cu multilayer thin films. Journal of Materials Science, 2021, 56, 16113-16133.	3.7	7
8	Microstructural Evolution of Chessboard like Nanodomains in Mn-doped ZnGaO <sub>4</sub> Spinel. Microscopy and Microanalysis, 2021, 27, 2418-2419.	0.4	1
9	Decrypting commensurate modulation, superstructure and inversion domain boundary in bismuth transition metal oxide through transmission electron microscopy. Microscopy and Microanalysis, 2021, 27, 3402-3404.	0.4	0
10	Nucleation and growth mechanism of wurtzite copper indium disulfide nanoparticles during solution processing. Ceramics International, 2021, 47, 32086-32096.	4.8	4
11	Low thermal budget processing of CdS thin films. Materials Letters, 2020, 280, 128560.	2.6	5
12	Phase Stability and Microstructural Evolution in Vanadium-Titanium Alloys with Oxygen Dissolution and Varying Titanium-content. Microscopy and Microanalysis, 2020, 26, 2086-2088.	0.4	1
13	Effect of surface nanostructuring in solution treated and thermally aged condition on LCF life of AA7075. Surface and Coatings Technology, 2020, 404, 126431.	4.8	1
14	Phase separation in wurtzite CuIn <sub>x</sub> Ga <sub>1-x</sub> S <sub>2</sub> nanoparticles. Journal of Materials Science, 2020, 55, 11841-11855.	3.7	6
15	Evolution of phases, hardness and magnetic properties of AlCoCrFeNi high entropy alloy processed by mechanical alloying. Journal of Alloys and Compounds, 2020, 832, 154826.	5.5	66
16	Fabrication of Al-Cu-Fe quasicrystal reinforced 6082 aluminium matrix nanocomposites through mechanical milling and spark plasma sintering. Journal of Alloys and Compounds, 2020, 828, 154258.	5.5	33
17	Mechanically driven structural transformation in Sn reinforced Al-Cu-Fe quasicrystalline matrix nanocomposite. Journal of Alloys and Compounds, 2020, 834, 155065.	5.5	16
18	Phase Formation and Microstructural Evaluation in V-Ti-Cr System Using Advanced Microscopy Analysis. Microscopy and Microanalysis, 2019, 25, 2280-2281.	0.4	0

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19	Evolution of Microstructures and Interfaces in Compositionally Graded Mixed Oxide Thin Films for Nanoelectronics and Energy. <i>Microscopy and Microanalysis</i> , 2019, 25, 2298-2299.	0.4	0
20	Determination of symmetry breaking transitions and polymorphism in Au-Cu nanostructures by nano-beam electron diffraction. <i>Materials Characterization</i> , 2019, 154, 437-448.	4.4	4
21	Synthesis and characterization of Sn reinforced Al-Cu-Fe quasicrystalline matrix nanocomposite by mechanical milling. <i>Journal of Alloys and Compounds</i> , 2019, 797, 1280-1287.	5.5	23
22	Synthesis of rod-shaped Au-Cu intermetallic nanoparticles and SERS detection. <i>Materials Letters</i> , 2019, 249, 33-36.	2.6	13
23	Alloying behavior and thermal stability of mechanically alloyed nano AlCoCrFeNiTi high-entropy alloy. <i>Journal of Materials Research</i> , 2019, 34, 787-795.	2.6	31
24	Understanding Laves phase precipitation induced embrittlement of modified 9Cr-1Mo steel. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	10
25	Vacancy-mediated structural changes in Au-Cu nanoparticles. <i>Philosophical Magazine Letters</i> , 2018, 98, 97-106.	1.2	6
26	Mechano-chemical synthesis, thermal stability and phase evolution in AlCoCrFeNiMn high entropy alloy. <i>Journal of Alloys and Compounds</i> , 2018, 757, 87-97.	5.5	92
27	Direct structure imaging of partially collapsed omega domains in phase-separated V-Ti alloy through atom column contrast interpretation. <i>Journal of Materials Science</i> , 2018, 53, 13186-13202.	3.7	4
28	Alloying behaviour, thermal stability and phase evolution in quinary AlCoCrFeNi high entropy alloy. <i>Advanced Powder Technology</i> , 2018, 29, 2221-2230.	4.1	123
29	Studies on the phase diagram of Bi-Cr-O system. <i>Journal of Nuclear Materials</i> , 2017, 487, 174-185.	2.7	6
30	Role of polyhedral order in glass to crystal transition dynamics in Zr <sub>60</sub> Cu <sub>10</sub> Al <sub>15</sub> Ni <sub>15</sub> glass forming alloy. <i>Journal of Non-Crystalline Solids</i> , 2017, 471, 256-263.	3.1	2
31	Microstructural and microchemical studies of phase stability in V-O solid solution. <i>Materials Characterization</i> , 2017, 124, 129-135.	4.4	4
32	Deformation behavior of modified 9Cr-1Mo steel under low cycle fatigue at 600 °C. <i>Materials Characterization</i> , 2017, 131, 244-252.	4.4	42
33	Phase and Microstructure Evolution in V-Ti-(Cr/W) Alloys. <i>Materials Today: Proceedings</i> , 2016, 3, 2920-2925.	1.8	0
34	Phase separation and $\beta$ phase transformation in binary V-Ti and ternary V-Ti-Cr alloys. <i>Acta Materialia</i> , 2016, 121, 310-324.	7.9	23
35	Exceptional resistance to grain growth in nanocrystalline CoCrFeNi high entropy alloy at high homologous temperatures. <i>Journal of Alloys and Compounds</i> , 2016, 662, 361-367.	5.5	159
36	Crystallographic-shear-phase-driven W <sub>18</sub> O <sub>49</sub> nanowires growth on nanocrystalline W surfaces. <i>Scripta Materialia</i> , 2016, 115, 28-32.	5.2	19

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37	Alloy design and microstructural evolution in Vâ€“Tiâ€“Cr alloys. <i>Materials Characterization</i> , 2015, 106, 292-301.	4.4	17
38	In-situ electron microscopy investigation of reduction-induced microstructural changes in NiO. <i>Ceramics International</i> , 2015, 41, 12658-12667.	4.8	5
39	Structure imaging and vanadium substitution in cubic TiCr <sub>2</sub> Laves phase. <i>Philosophical Magazine</i> , 2015, 95, 2403-2426.	1.6	9
40	Icosahedral Cluster Energetics in Zr <sub>60</sub> Cu <sub>10</sub> Al <sub>15</sub> Ni <sub>15</sub> Bulk Metallic Glass and Their Role on Solidification Behavior. <i>Transactions of the Indian Institute of Metals</i> , 2015, 68, 1107-1112.	1.5	1
41	Texturing of pure and doped CeO <sub>2</sub> thin films by EB-PVD through target engineering. <i>RSC Advances</i> , 2014, 4, 33338.	3.6	40
42	Functionalized carbon nanotube reinforced scaffolds for bone regenerative engineering: fabrication, <i>in vitro</i> and <i>in vivo</i> evaluation. <i>Biomedical Materials (Bristol)</i> , 2014, 9, 035001.	3.3	78
43	Effects of high-energy Si ion-irradiations on optical responses of Ag metal nanoparticles in a SiO <sub>2</sub> matrix. <i>Chemical Physics Letters</i> , 2014, 607, 100-104.	2.6	11
44	Synthesis and Structural Characterization of Vâ€“4Tiâ€“4Cr Alloy. <i>Transactions of the Indian Institute of Metals</i> , 2013, 66, 381-385.	1.5	7
45	Thermodynamic Basis of Non-equilibrium Phase Transformations of bcc Î²-Phase in Tiâ€“Mo System. <i>Transactions of the Indian Institute of Metals</i> , 2013, 66, 401-407.	1.5	5
46	Effect of Thermal Aging on Ductile-Brittle Transition Temperature of Modified 9Cr-1Mo Steel Evaluated with Reference Temperature Approach Under Dynamic Loading Condition. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 2141-2155.	2.2	30
47	Microstructure and interfacial chemistry of pure and La-doped BiFeO <sub>3</sub> thin films. <i>Microscopy Research and Technique</i> , 2013, 76, 1304-1309.	2.2	0
48	Synthesis of novel Ru <sub>2</sub> C under high pressureâ€“high temperature conditions. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 362202.	1.8	20
49	A unified approach to phase and microstructural stability for Fe-ETM alloys through Miedema's model. <i>Intermetallics</i> , 2012, 23, 148-157.	3.9	22
50	Micro indentation study on Cu <sub>60</sub> Zr <sub>20</sub> Ti <sub>20</sub> metallic glass. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 550, 160-166.	5.6	16
51	Single-step growth dynamics of coreâ€“shell GaN on Ga <sub>2</sub> O <sub>3</sub> freestanding nanoprotuded microbelts. <i>Journal of Materials Science</i> , 2012, 47, 3447-3453.	3.7	11
52	Microstructural evolution of cobalt-doped barium cerateâ€“zirconate at elevated temperatures under moist reducing conditions. <i>Journal of the European Ceramic Society</i> , 2011, 31, 1421-1429.	5.7	10
53	Synthesis of cobalt-doped barium cerate-zirconate and its evaluation for hydrogen production and electrochemical characterization. <i>Journal of Materials Science</i> , 2010, 45, 3215-3227.	3.7	12
54	Low-temperature and ambient-pressure synthesis and shape evolution of nanocrystalline pure, La-doped and Gd-doped CeO <sub>2</sub> . <i>Applied Surface Science</i> , 2010, 256, 3772-3777.	6.1	16

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55	Hydrothermal Synthesis of Nanocrystalline Barium Cerate Using Hexamethylenetetramine. Journal of the American Ceramic Society, 2010, 93, 4041-4046.	3.8	12
56	Nanopatterning by solid-state dewetting on reconstructed ceramic surfaces. Applied Physics Letters, 2009, 94, .	3.3	33
57	Nanoengineered Transparent, Free-Standing, Conductive Nanofibrous Membranes. Journal of Physical Chemistry C, 2009, 113, 19525-19530.	3.1	7
58	Glass forming ability and stability: Ternary Cu bearing Ti, Zr, Hf alloys. Intermetallics, 2009, 17, 128-135.	3.9	20
59	Microscopy of Oxide Nanoparticles for Energy Applications. Microscopy and Microanalysis, 2009, 15, 1404-1405.	0.4	1
60	Metal Nanostructures on Ceramic Surfaces for Energy Applications. Microscopy and Microanalysis, 2009, 15, 1442-1443.	0.4	0
61	Glass-forming ability and stability of ternary Ni-early transition metal (Ti/Zr/Hf) alloys. Acta Materialia, 2008, 56, 1899-1907.	7.9	12
62	Structure and growth mechanism of ZnSe nanowires. Journal of Applied Physics, 2008, 104, .	2.5	23
63	Glass forming ability: Miedema approach to (Zr, Ti, Hf)â€“(Cu, Ni) binary and ternary alloys. Journal of Alloys and Compounds, 2008, 465, 163-172.	5.5	91
64	Combined Structural and Chemical Investigations of Ceria Nanoparticles in the TEM. Microscopy and Microanalysis, 2008, 14, 280-281.	0.4	5
65	Synthesis and Activity of Co-doped Barium Cerium Zirconate for Hydrogen Reforming and Purification. Materials Research Society Symposia Proceedings, 2008, 1126, 1.	0.1	1
66	Modified electron-beam-induced deposition of metal nanostructure arrays using a parallel electron beam. Applied Physics Letters, 2008, 93, 133104.	3.3	9
67	In situ Microscopy: A Tool to Understand Mechanisms. Microscopy and Microanalysis, 2008, 14, 246-247.	0.4	2
68	Photosensitization of ZnO Nanowires with CdSe Quantum Dots for Photovoltaic Devices. Nano Letters, 2007, 7, 1793-1798.	9.1	935
69	Growth of ZnO Nanorods: A TEM Study. Microscopy and Microanalysis, 2006, 12, 698-699.	0.4	4
70	Interfaces of ZnO Nanowires Grown on Semiconducting Surfaces. Microscopy and Microanalysis, 2006, 12, 694-695.	0.4	1
71	Glass-forming ability and stability of ternary Ni-early transition metal (Ti/Zr/Hf) alloys. Acta Materialia, 2006, 54, 3637-3646.	7.9	9
72	Inversion Domain Boundaries in Wurtzite GaN. Microscopy and Microanalysis, 2006, 12, 1084-1085.	0.4	0

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73	Crystallisation in Al <sup>100</sup> TM <sup>100</sup> La metallic glasses. Intermetallics, 2004, 12, 1045-1050.	3.9	13
74	Synthesis and devitrification of glassy Zr <sup>100</sup> Ti <sup>100</sup> Ni and Zr <sup>100</sup> Hf <sup>100</sup> Ni ternary alloys. Journal of Non-Crystalline Solids, 2004, 334-335, 270-275.	3.1	8
75	Bulk metallic glasses: A new class of engineering materials. Sadhana - Academy Proceedings in Engineering Sciences, 2003, 28, 783-798.	1.3	50
76	Texture, Grain Boundaries, Defects and Location of Substitutional Atoms in Cryo-Mechanically Processed Ti-5Ta-1.8Nb Alloy. Materials Science Forum, 0, 702-703, 131-134.	0.3	1