

Joysurya Basu

List of Publications by Year in descending order

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76
papers

2,325
citations

394421

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214800

47
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78
all docs

78
docs citations

78
times ranked

3084
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Photosensitization of ZnO Nanowires with CdSe Quantum Dots for Photovoltaic Devices. Nano Letters, 2007, 7, 1793-1798. | 9.1 | 935 |
| 2 | Exceptional resistance to grain growth in nanocrystalline CoCrFeNi high entropy alloy at high homologous temperatures. Journal of Alloys and Compounds, 2016, 662, 361-367. | 5.5 | 159 |
| 3 | Alloying behaviour, thermal stability and phase evolution in quinary AlCoCrFeNi high entropy alloy. Advanced Powder Technology, 2018, 29, 2221-2230. | 4.1 | 123 |
| 4 | Mechano-chemical synthesis, thermal stability and phase evolution in AlCoCrFeNiMn high entropy alloy. Journal of Alloys and Compounds, 2018, 757, 87-97. | 5.5 | 92 |
| 5 | Class 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 |
| 6 | Functionalized carbon nanotube reinforced scaffolds for bone regenerative engineering: fabrication, <i>in vitro</i> and <i>in vivo</i> evaluation. Biomedical Materials (Bristol), 2014, 9, 035001. | 3.3 | 78 |
| 7 | 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 |
| 8 | Bulk metallic glasses: A new class of engineering materials. Sadhana - Academy Proceedings in Engineering Sciences, 2003, 28, 783-798. | 1.3 | 50 |
| 9 | Deformation behavior of modified 9Crâ€“1Mo steel under low cycle fatigue at 600 Â°C. Materials Characterization, 2017, 131, 244-252. | 4.4 | 42 |
| 10 | Texturing of pure and doped CeO₂ thin films by EBPVD through target engineering. RSC Advances, 2014, 4, 33338. | 3.6 | 40 |
| 11 | Local Composition Migration Induced Microstructural Evolution and Mechanical Properties of Non-equiatomic Fe ₄₀ Cr ₂₅ Ni ₁₅ Al ₁₅ Co ₅ Medium-Entropy Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 1777-1789. | 2.2 | 34 |
| 12 | Nanopatterning by solid-state dewetting on reconstructed ceramic surfaces. Applied Physics Letters, 2009, 94, . | 3.3 | 33 |
| 13 | Fabrication of Alâ€“Cuâ€“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 |
| 14 | Alloying behavior and thermal stability of mechanically alloyed nano AlCoCrFeNiTi high-entropy alloy. Journal of Materials Research, 2019, 34, 787-795. | 2.6 | 31 |
| 15 | Effect of Thermal Aging on Ductile-Brittle Transition Temperature of Modified 9Cr-1Mo Steel Evaluated with Reference Temperature Approach Under Dynamic Loading Condition. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2141-2155. | 2.2 | 30 |
| 16 | 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 |
| 17 | Structure and growth mechanism of ZnSe nanowires. Journal of Applied Physics, 2008, 104, . | 2.5 | 23 |
| 18 | Phase separation and ï‰ transformation in binary V-Ti and ternary V-Ti-Cr alloys. Acta Materialia, 2016, 121, 310-324. | 7.9 | 23 |

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|----|---|-----|-----------|
| 19 | 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 |
| 20 | 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 |
| 21 | Glass forming ability and stability: Ternary Cu bearing Ti, Zr, Hf alloys. <i>Intermetallics</i> , 2009, 17, 128-135. | 3.9 | 20 |
| 22 | Synthesis of novel Ru ₂ C under high pressureâ€“high temperature conditions. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 362202. | 1.8 | 20 |
| 23 | Crystallographic-shear-phase-driven W18O49 nanowires growth on nanocrystalline W surfaces. <i>Scripta Materialia</i> , 2016, 115, 28-32. | 5.2 | 19 |
| 24 | Alloy design and microstructural evolution in Vâ€“Tiâ€“Cr alloys. <i>Materials Characterization</i> , 2015, 106, 292-301. | 4.4 | 17 |
| 25 | Low-temperature and ambient-pressure synthesis and shape evolution of nanocrystalline pure, La-doped and Gd-doped CeO ₂ . <i>Applied Surface Science</i> , 2010, 256, 3772-3777. | 6.1 | 16 |
| 26 | Micro indentation study on Cu ₆₀ Zr ₂₀ Ti ₂₀ metallic glass. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 550, 160-166. | 5.6 | 16 |
| 27 | Mechanically driven structural transformation in Sn reinforced Alâ€“Cuâ€“Fe quasicrystalline matrix nanocomposite. <i>Journal of Alloys and Compounds</i> , 2020, 834, 155065. | 5.5 | 16 |
| 28 | Crystallisation in Alâ€“ETMâ€“LTMâ€“La metallic glasses. <i>Intermetallics</i> , 2004, 12, 1045-1050. | 3.9 | 13 |
| 29 | Synthesis of rod-shaped Au-Cu intermetallic nanoparticles and SERS detection. <i>Materials Letters</i> , 2019, 249, 33-36. | 2.6 | 13 |
| 30 | Glass-forming ability and stability of ternary Ni-early transition metal (Ti/Zr/Hf) alloys. <i>Acta Materialia</i> , 2008, 56, 1899-1907. | 7.9 | 12 |
| 31 | 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 |
| 32 | Hydrothermal Synthesis of Nanocrystalline Barium Cerate Using Hexamethylenetetramine. <i>Journal of the American Ceramic Society</i> , 2010, 93, 4041-4046. | 3.8 | 12 |
| 33 | Single-step growth dynamics of coreâ€“shell GaN on Ga ₂ O ₃ freestanding nanoprotuded microbelts. <i>Journal of Materials Science</i> , 2012, 47, 3447-3453. | 3.7 | 11 |
| 34 | Effects of high-energy Si ion-irradiations on optical responses of Ag metal nanoparticles in a SiO ₂ matrix. <i>Chemical Physics Letters</i> , 2014, 607, 100-104. | 2.6 | 11 |
| 35 | 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 |
| 36 | Understanding Laves phase precipitation induced embrittlement of modified 9Crâ€“1Mo steel. <i>SN Applied Sciences</i> , 2019, 1, 1. | 2.9 | 10 |

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|----|--|-----|-----------|
| 37 | Glass-forming ability and stability of ternary Ni-early transition metal (Ti/Zr/Hf) alloys. <i>Acta Materialia</i> , 2006, 54, 3637-3646. | 7.9 | 9 |
| 38 | Modified electron-beam-induced deposition of metal nanostructure arrays using a parallel electron beam. <i>Applied Physics Letters</i> , 2008, 93, 133104. | 3.3 | 9 |
| 39 | Structure imaging and vanadium substitution in cubic TiCr ₂ Laves phase. <i>Philosophical Magazine</i> , 2015, 95, 2403-2426. | 1.6 | 9 |
| 40 | Synthesis and devitrification of glassy Zr ₄₀ Ti ₄₀ Ni and Zr ₄₀ Hf ₄₀ Ni ternary alloys. <i>Journal of Non-Crystalline Solids</i> , 2004, 334-335, 270-275. | 3.1 | 8 |
| 41 | Initial texture dependence of nanocrystalline omega phase formation during high pressure torsion of commercially pure titanium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 802, 140687. | 5.6 | 8 |
| 42 | Nanoengineered Transparent, Free-Standing, Conductive Nanofibrous Membranes. <i>Journal of Physical Chemistry C</i> , 2009, 113, 19525-19530. | 3.1 | 7 |
| 43 | Synthesis and Structural Characterization of V ₄₀ Ti ₄₀ Cr Alloy. <i>Transactions of the Indian Institute of Metals</i> , 2013, 66, 381-385. | 1.5 | 7 |
| 44 | Homogeneous and polymorphic transformations to ordered intermetallics in nanostructured Au ₄₀ Cu multilayer thin films. <i>Journal of Materials Science</i> , 2021, 56, 16113-16133. | 3.7 | 7 |
| 45 | Studies on the phase diagram of Bi-Cr-O system. <i>Journal of Nuclear Materials</i> , 2017, 487, 174-185. | 2.7 | 6 |
| 46 | Vacancy-mediated structural changes in Au ₄₀ Cu nanoparticles. <i>Philosophical Magazine Letters</i> , 2018, 98, 97-106. | 1.2 | 6 |
| 47 | Phase separation in wurtzite Cu _{1-x} Ga _{1+x} S ₂ nanoparticles. <i>Journal of Materials Science</i> , 2020, 55, 11841-11855. | 3.7 | 6 |
| 48 | Combined Structural and Chemical Investigations of Ceria Nanoparticles in the TEM. <i>Microscopy and Microanalysis</i> , 2008, 14, 280-281. | 0.4 | 5 |
| 49 | Thermodynamic Basis of Non-equilibrium Phase Transformations of bcc β -Phase in Ti ₄₀ Mo System. <i>Transactions of the Indian Institute of Metals</i> , 2013, 66, 401-407. | 1.5 | 5 |
| 50 | In-situ electron microscopy investigation of reduction-induced microstructural changes in NiO. <i>Ceramics International</i> , 2015, 41, 12658-12667. | 4.8 | 5 |
| 51 | Low thermal budget processing of CdS thin films. <i>Materials Letters</i> , 2020, 280, 128560. | 2.6 | 5 |
| 52 | Structures, interfaces and thermodynamic stability of nanocrystalline phases in rapidly solidified Fe-based amorphous nanocomposite ribbon, powder and coating. <i>Materials Characterization</i> , 2022, 186, 111815. | 4.4 | 5 |
| 53 | Growth of ZnO Nanorods: A TEM Study. <i>Microscopy and Microanalysis</i> , 2006, 12, 698-699. | 0.4 | 4 |
| 54 | Microstructural and microchemical studies of phase stability in V-O solid solution. <i>Materials Characterization</i> , 2017, 124, 129-135. | 4.4 | 4 |

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|----|---|-----|-----------|
| 55 | Direct structure imaging of partially collapsed omega domains in phase-separated Vâ€“Ti alloy through atom column contrast interpretation. <i>Journal of Materials Science</i> , 2018, 53, 13186-13202. | 3.7 | 4 |
| 56 | 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 |
| 57 | Nucleation and growth mechanism of wurtzite copper indium disulfide nanoparticles during solution processing. <i>Ceramics International</i> , 2021, 47, 32086-32096. | 4.8 | 4 |
| 58 | Evolution of a self-assembled chessboard nanostructure spinel in a CoFeGaMnZn multicomponent oxide. <i>Philosophical Magazine</i> , 2022, 102, 1121-1135. | 1.6 | 3 |
| 59 | In situ Microscopy: A Tool to Understand Mechanisms. <i>Microscopy and Microanalysis</i> , 2008, 14, 246-247. | 0.4 | 2 |
| 60 | Role of polyhedral order in glass to crystal transition dynamics in Zr60Cu10Al15Ni15 glass forming alloy. <i>Journal of Non-Crystalline Solids</i> , 2017, 471, 256-263. | 3.1 | 2 |
| 61 | Interfaces of ZnO Nanowires Grown on Semiconducting Surfaces. <i>Microscopy and Microanalysis</i> , 2006, 12, 694-695. | 0.4 | 1 |
| 62 | Synthesis and Activity of Co-doped Barium Cerium Zirconate for Hydrogen Reforming and Purification. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1126, 1. | 0.1 | 1 |
| 63 | Microscopy of Oxide Nanoparticles for Energy Applications. <i>Microscopy and Microanalysis</i> , 2009, 15, 1404-1405. | 0.4 | 1 |
| 64 | Texture, Grain Boundaries, Defects and Location of Substitutional Atoms in Cryo-Mechanically Processed Ti-5Ta-1.8Nb Alloy. <i>Materials Science Forum</i> , 0, 702-703, 131-134. | 0.3 | 1 |
| 65 | Icosahedral Cluster Energetics in Zr60Cu10Al15Ni15 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 |
| 66 | Phase Stability and Microstructural Evolution in Vanadium-Titanium Alloys with Oxygen Dissolution and Varying Titanium-content. <i>Microscopy and Microanalysis</i> , 2020, 26, 2086-2088. | 0.4 | 1 |
| 67 | Effect of surface nanostructuring in solution treated and thermally aged condition on LCF life of AA7075. <i>Surface and Coatings Technology</i> , 2020, 404, 126431. | 4.8 | 1 |
| 68 | Microstructural Evolution of Chessboard like Nanodomains in Mn-doped ZnGaO ₄ Spinel. <i>Microscopy and Microanalysis</i> , 2021, 27, 2418-2419. | 0.4 | 1 |
| 69 | Inversion Domain Boundaries in Wurtzite GaN. <i>Microscopy and Microanalysis</i> , 2006, 12, 1084-1085. | 0.4 | 0 |
| 70 | Metal Nanostructures on Ceramic Surfaces for Energy Applications. <i>Microscopy and Microanalysis</i> , 2009, 15, 1442-1443. | 0.4 | 0 |
| 71 | Microstructure and interfacial chemistry of pure and La-doped BiFeO ₃ thin films. <i>Microscopy Research and Technique</i> , 2013, 76, 1304-1309. | 2.2 | 0 |
| 72 | Phase and Microstructure Evolution in V-Ti-(Cr/W) Alloys. <i>Materials Today: Proceedings</i> , 2016, 3, 2920-2925. | 1.8 | 0 |

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|----|---|-----|-----------|
| 73 | Phase Formation and Microstructural Evaluation in V-Ti-Cr System Using Advanced Microscopy Analysis. <i>Microscopy and Microanalysis</i> , 2019, 25, 2280-2281. | 0.4 | 0 |
| 74 | 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 |
| 75 | Decrypting commensurate modulation, superstructure and inversion domain boundary in bismuth transition metal oxide through transmission electron microscopy. <i>Microscopy and Microanalysis</i> , 2021, 27, 3402-3404. | 0.4 | 0 |
| 76 | Structure and interfaces of compositionally graded Li(Ni, Tj ETQqO O O rgBT /Overlock 10 Tf 50 627 Td (Mn) <i>_x</i>O<i>_y</i> Philosophical Magazine, 2022, 102, 1547-1579. | 1.6 | 0 |