

Khushbu Dash

List of Publications by Year in descending order

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88
papers

2,667
citations

257357

24
h-index

197736

49
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88
all docs

88
docs citations

88
times ranked

2650
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution of phase constitution with mechanical alloying and spark plasma sintering of nanocrystalline Al _x CoCrFeNi ($x = 0, 0.3, 0.6, 1$ mol) high-entropy alloys. Journal of Materials Research, 2022, 37, 959-975.	1.2	11
2	Strength–Ductility Synergy in High Entropy Alloys by Tuning the Thermo-Mechanical Process Parameters: A Comprehensive Review. Journal of the Indian Institute of Science, 2022, 102, 91-116.	0.9	9
3	ICME framework to simulate microstructure evolution during laser powder bed fusion of Haynes 282 nickel-based superalloy. Journal of Materials Science, 2022, 57, 9693-9713.	1.7	9
4	Effect of Al addition and homogenization treatment on the magnetic properties of CoFeMnNi high-entropy alloy. Journal of Materials Science, 2020, 55, 17204-17217.	1.7	20
5	Influence of processing route on the alloying behavior, microstructural evolution and thermal stability of CrMoNbTiW refractory high-entropy alloy. Journal of Materials Research, 2020, 35, 1556-1571.	1.2	13
6	Magnetic and magnetoelectric response of Gd doped nickel ferrite and barium titanate nanocomposites. Journal of Applied Physics, 2020, 127, 114104.	1.1	10
7	Compressive creep of SiC whisker/Ti ₃ SiC ₂ composites at high temperature in air. Journal of the American Ceramic Society, 2020, 103, 5952-5965.	1.9	10
8	Thermal Spray High-Entropy Alloy Coatings: A Review. Journal of Thermal Spray Technology, 2020, 29, 857-893.	1.6	162
9	Graded microstructure and texture in ultrafine grained multi-layered immiscible bimetallic system. Materialia, 2020, 13, 100830.	1.3	0
10	Analysis of high-temperature flexural behaviour of copper–alumina micro- and nanocomposites. Emerging Materials Research, 2019, 8, 404-407.	0.4	1
11	Influence of mechanically activated annealing on phase evolution in Al _{0.3} CoCrFeNi high-entropy alloy. Journal of Materials Science, 2019, 54, 14588-14598.	1.7	20
12	Phase evolution of refractory high-entropy alloy CrMoNbTiW during mechanical alloying and spark plasma sintering. Journal of Materials Research, 2019, 34, 756-766.	1.2	25
13	Oxidation studies of Al alloys: Part II Al-Mg alloy. Corrosion Science, 2019, 155, 97-108.	3.0	38
14	Ti ₂ NiCoSnSb - a new half-Heusler type high-entropy alloy showing simultaneous increase in Seebeck coefficient and electrical conductivity for thermoelectric applications. Scientific Reports, 2019, 9, 5331.	1.6	58
15	Comparison of Different Processing Routes for the Synthesis of Semiconducting AlSb. Journal of Materials Engineering and Performance, 2018, 27, 6196-6205.	1.2	8
16	Response of Al-Based Micro- and Nanocomposites to Rapid Fluctuations in Thermal Environments. Journal of Materials Engineering and Performance, 2018, 27, 3678-3687.	1.2	1
17	Elastic and Plastic Behavior of an Ultrafine-Grained Mg Reinforced with BN Nanoparticles. Journal of Materials Engineering and Performance, 2018, 27, 3112-3121.	1.2	5
18	Densification mechanisms during reactive spark plasma sintering of Titanium diboride and Zirconium diboride. Philosophical Magazine, 2017, 97, 1588-1609.	0.7	15

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19	Radioactive isotopes reveal a non sluggish kinetics of grain boundary diffusion in high entropy alloys. Scientific Reports, 2017, 7, 12293.	1.6	100
20	Topologically Close-packed Phase Formation in High Entropy Alloys: A Review of Calphad and Experimental Results. Jom, 2017, 69, 2113-2124.	0.9	24
21	Critical evaluation of glass forming ability criteria. Materials Science and Technology, 2016, 32, 380-400.	0.8	55
22	Structure-Property Correlation in Fe-Al ₂ O ₃ In Situ Nanocomposite Synthesized by High-Energy Ball Milling and Spark Plasma Sintering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5223-5233.	1.1	2
23	Implications of Degree of Thermal Shocks on Flexural Properties of Cu-Al ₂ O ₃ Micro- and Nano-composites. Journal of Materials Engineering and Performance, 2016, 25, 259-266.	1.2	1
24	On the Structural Stability of Melt Spun Ribbons of Fe _{95-x} Zr _x B ₄ Cu ₁ (x = 7 and 9) Alloys and Correlation with Their Magnetic Properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 560-571.	1.1	3
25	The behaviour of aluminium matrix composites under thermal stresses. Science and Engineering of Composite Materials, 2016, 23, 1-20.	0.6	21
26	Influence of TiB ₂ Addition on the Precipitation Kinetics in Al-7Si-0.3Mg In Situ TiB ₂ Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2844-2849.	1.1	3
27	Bio-corrosion and Cytotoxicity Studies on Novel Zr ₅₅ Co ₃₀ Ti ₁₅ and Cu ₆₀ Zr ₂₀ Ti ₂₀ Metallic Glasses. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2422-2430.	1.1	15
28	Plasma-Sprayed High Entropy Alloys: Microstructure and Properties of AlCoCrFeNi and MnCoCrFeNi. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 791-800.	1.1	149
29	Microstructural evolution and sliding wear studies of copper-alumina micro- and nano-composites fabricated by spark plasma sintering. Journal of the Mechanical Behavior of Materials, 2015, 24, 25-34.	0.7	4
30	Icosahedral Cluster Energetics in Zr ₆₀ Cu ₁₀ Al ₁₅ Ni ₁₅ Bulk Metallic Glass and Their Role on Solidification Behavior. Transactions of the Indian Institute of Metals, 2015, 68, 1107-1112.	0.7	1
31	Spark Plasma Sintering Temperature Effect on Structural, Dielectric and Ferroelectric Properties of Ba _{0.9} Sr _{0.1} TiO ₃ Nanocrystalline Ceramics. Journal of Electronic Materials, 2015, 44, 4308-4315.	1.0	5
32	Factors Influencing Oxidation Behavior of Metallic Glasses. Transactions of the Indian Institute of Metals, 2015, 68, 1151-1154.	0.7	0
33	Carbide-Free Bainitic Weld Metal: A New Concept in Welding of Armor Steels. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 2327-2337.	1.0	15
34	Generation of drugs coated iron nanoparticles through high energy ball milling. Journal of Applied Physics, 2014, 115, 124906.	1.1	2
35	Influence of Surfactant Variation on Effective Anisotropy and Magnetic Properties of Mechanically Milled Magnetite Nanoparticles and Their Biocompatibility. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	4
36	Thermodynamic Basis for Glass Formation in Cu-Zr Rich Ternary Systems and Their Synthesis by Mechanical Alloying. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2363-2370.	1.1	11

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37	Isothermal Grain Growth Studies on Nanostructured 9Cr-1Mo and 9Cr-1W Ferritic Steels Containing Nano-sized Oxide Dispersoids. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1684-1688.	1.1	1
38	Effects of Thermal and Cryogenic Conditionings on Flexural Behavior of Thermally Shocked Cu-Al ₂ O ₃ Micro and NanoComposites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1567-1578.	1.1	4
39	Porous copper template from partially spark plasma-sintered Cu-Zn aggregate via dezincification. Bulletin of Materials Science, 2014, 37, 743-752.	0.8	10
40	Processing and properties of Cu based micro- and nano-composites. Bulletin of Materials Science, 2014, 37, 227-238.	0.8	17
41	Control of UFG Microstructure in Welded Carbon Steel Tubes by Cold Drawing and Annealing. Transactions of the Indian Institute of Metals, 2014, 67, 681-690.	0.7	1
42	Effect of DC bias on dielectric properties of nanocrystalline CuAlO ₂ . Electronic Materials Letters, 2013, 9, 207-211.	1.0	12
43	Synthesis and characterization of aluminium alumina micro- and nano-composites by spark plasma sintering. Materials Research Bulletin, 2013, 48, 2535-2542.	2.7	71
44	Characterization of Oxide Dispersed AlCoCrFe High Entropy Alloy Synthesized by Mechanical Alloying and Spark Plasma Sintering. Transactions of the Indian Institute of Metals, 2013, 66, 369-373.	0.7	58
45	Synthesis and Characterization of Spark Plasma Sintered FeAl and In situ FeAl-Al ₂ O ₃ Composite. Transactions of the Indian Institute of Metals, 2013, 66, 419-424.	0.7	3
46	Effect of Y ₂ O ₃ on Spark Plasma Sintering Kinetics of Nanocrystalline 9Cr-1Mo Ferritic Oxide Dispersion-Strengthened Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4037-4041.	1.1	6
47	Design of an Ideal Grain-Refiner Alloy for Al-7Si Alloy Using Artificial Neural Networks. Journal of Materials Engineering and Performance, 2013, 22, 696-699.	1.2	9
48	Investigation of Structural and Diffuse Phase Transition of New Nano Lead-Free System xBaO(1-x)BzT(1-x)BCT. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5241-5250.	1.1	10
49	XRD Characterization of Microstructural Evolution During Mechanical Alloying of W-20wt%Mo. Transactions of the Indian Institute of Metals, 2013, 66, 409-414.	0.7	16
50	Phase Evolution and Densification Behavior of Nanocrystalline Multicomponent High Entropy Alloys During Spark Plasma Sintering. Jom, 2013, 65, 1797-1804.	0.9	93
51	Crystallite size effect on voltage tunable giant dielectric permittivity of nanocrystalline CuO. Electronic Materials Letters, 2013, 9, 59-62.	1.0	11
52	Effect of Boron Addition and Initial Heat-Treatment Temperature on Microstructure and Mechanical Properties of Modified 9Cr-1Mo Steels Under Different Heat-Treatment Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2171-2186.	1.1	20
53	Large-scale green synthesis of Cu nanoparticles. Environmental Chemistry Letters, 2013, 11, 183-187.	8.3	53
54	Process and progress of sintering behavior of Cu-Al ₂ O ₃ composites. Emerging Materials Research, 2013, 2, 32-38.	0.4	12

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55	Investigation of intrinsic defects in core-shell structured ZnO nanocrystals. Journal of Applied Physics, 2012, 111, .	1.1	100
56	Prediction of Bulk Metallic Glass Formation in Cu-Zr-Ag-Hf System by Thermodynamic and Topological Modeling. Transactions of the Indian Institute of Metals, 2012, 65, 827-831.	0.7	20
57	Nanocomposites of Aluminum Alloys by Rapid Solidification Processing. Transactions of the Indian Institute of Metals, 2012, 65, 647-651.	0.7	2
58	Prediction of Glass Forming Ability Using Thermodynamic Parameters. Transactions of the Indian Institute of Metals, 2012, 65, 559-563.	0.7	33
59	Synthesis and characterization of copper-alumina metal matrix composite by conventional and spark plasma sintering. Journal of Alloys and Compounds, 2012, 516, 78-84.	2.8	78
60	Interplay Between Residual Stresses, Microstructure, Process Variables and Engine Block Casting Integrity. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 5258-5270.	1.1	28
61	Transition of Crack from Type IV to Type II Resulting from Improved Utilization of Boron in the Modified 9Cr-1Mo Steel Weldment. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3724-3741.	1.1	38
62	Phase Formation in Equiatomic High Entropy Alloys: CALPHAD Approach and Experimental Studies. Transactions of the Indian Institute of Metals, 2012, 65, 375-380.	0.7	34
63	Analysis of Mechanical Milling in Simoloyer: An Energy Modeling Approach. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1323-1327.	1.1	8
64	Influence of bias voltage on dielectric relaxation of nanocrystalline anatase TiO ₂ using modulus formalism. Journal of Applied Physics, 2011, 109, .	1.1	16
65	Synthesis of Nanocrystalline Al ₂ O ₃ from Nanocrystalline Boehmite Derived from High Energy Ball Milling of Gibbsite. Transactions of the Indian Institute of Metals, 2011, 64, 535-540.	0.7	4
66	Influence of oxides on the stability of zinc foam. Journal of Materials Science, 2011, 46, 7806-7814.	1.7	20
67	Analysis of the secondary phases in the microstructure of 319 type Al alloy engine blocks using electron microscopy and nanoindentation. Transactions of the Indian Institute of Metals, 2011, 64, 7-11.	0.7	16
68	Characterization of microstructure and precipitation behavior in Al-4Cu-xTiB ₂ in-situ composite. Transactions of the Indian Institute of Metals, 2011, 64, 117-121.	0.7	5
69	Precipitation kinetics in Al-Si-Mg/TiB ₂ in-situ composites. Transactions of the Indian Institute of Metals, 2011, 64, 123-126.	0.7	15
70	Development of Ni-Al ₂ O ₃ In-Situ Nanocomposite by Reactive Milling and Spark Plasma Sintering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2085-2093.	1.1	14
71	On Prediction of Amorphous Phase Forming Compositions in the Iron-Rich Fe-Zr-B Ternary System and Their Synthesis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3913-3920.	1.1	11
72	Characterization of Ferrite in Tempered Martensite of Modified 9Cr-1Mo Steel Using the Electron Backscattered Diffraction Technique. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3849-3852.	1.1	8

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73	Initial-stage Sintering Kinetics of Nanocrystalline Tungsten. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3863-3866.	1.1	24
74	Fabrication and Response of Al ₇₀ Y ₁₆ Ni ₁₀ Co ₄ Glass Reinforced Metal Matrix Composites. Materials and Manufacturing Processes, 2011, 26, 1242-1247.	2.7	26
75	Effect of DC bias on electrical conductivity of nanocrystalline $\hat{\pm}$ -CuSCN. AIP Advances, 2011, 1, .	0.6	24
76	Microstructure engineering of materials. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2010, 2, 125-125.	0.7	2
77	Hot consolidation and mechanical properties of nanocrystalline equiatomic AlFeTiCrZnCu high entropy alloy after mechanical alloying. Journal of Materials Science, 2010, 45, 5158-5163.	1.7	110
78	Microstructural studies on nanocrystalline oxide dispersion strengthened austenitic (Fe ¹⁸ Cr ⁸ Ni ² W ^{0.25} Y ₂ O ₃) alloy synthesized by high energy ball milling and vacuum hot pressing. Journal of Materials Science, 2010, 45, 4858-4865.	1.7	34
79	Effect of TiAl ₃ particles size and distribution on their settling and dissolution behaviour in aluminium. Journal of Materials Science, 2010, 45, 2921-2929.	1.7	17
80	Settling behaviour of TiAl ₃ , TiB ₂ , TiC and AlB ₂ particles in liquid Al during grain refinement. International Journal of Cast Metals Research, 2010, 23, 193-204.	0.5	28
81	Synthesis and Characterization of CNT Reinforced AA4032 Nanocomposites by High Energy Ball Milling. , 2010, , .		2
82	Magnetoelectric effect of (100 ^x)BaTiO ₃ -(x)NiFe _{1.98} O ₄ -(x=20 ⁸⁰ wt%) particulate nanocomposites. Applied Physics Letters, 2009, 94, .	1.5	36
83	Microstructure and Mechanical Properties of Nanostructured Al-4Cu Alloy Produced by Mechanical Alloying and Vacuum Hot Pressing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2798-2801.	1.1	48
84	Thermodynamic modeling of Zr-Ti-Cu-Ni-Be bulk metallic glass. Transactions of the Indian Institute of Metals, 2009, 62, 413-416.	0.7	10
85	Characterization of silver selenide thin films grown on Cr-covered Si substrates. Surface and Interface Analysis, 2009, 41, 170-178.	0.8	22
86	Influence of thermodynamics and local geometry on glass formation in Zr based alloys. Applied Physics Letters, 2008, 93, 061903.	1.5	8
87	Dielectric relaxation studies of nanocrystalline CuAlO ₂ using modulus formalism. Journal of Applied Physics, 2007, 102, 104104.	1.1	36
88	Novel materials synthesis by mechanical alloying/milling. International Materials Reviews, 1998, 43, 101-141.	9.4	553