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 g-index
88 all docs	88 docs citations	88 times ranked	2650 citing authors

#	Article	IF	Citations
1	Novel materials synthesis by mechanical alloying/milling. International Materials Reviews, 1998, 43, 101-141.	9.4	553
2	Thermal Spray High-Entropy Alloy Coatings: A Review. Journal of Thermal Spray Technology, 2020, 29, 857-893.	1.6	162
3	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
4	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
5	Investigation of intrinsic defects in core-shell structured ZnO nanocrystals. Journal of Applied Physics, 2012, 111, .	1.1	100
6	Radioactive isotopes reveal a non sluggish kinetics of grain boundary diffusion in high entropy alloys. Scientific Reports, 2017, 7, 12293.	1.6	100
7	Phase Evolution and Densification Behavior of Nanocrystalline Multicomponent High Entropy Alloys During Spark Plasma Sintering. Jom, 2013, 65, 1797-1804.	0.9	93
8	Synthesis and characterization of copperâ€“alumina metal matrix composite by conventional and spark plasma sintering. Journal of Alloys and Compounds, 2012, 516, 78-84.	2.8	78
9	Synthesis and characterization of aluminiumâ€“alumina micro- and nano-composites by spark plasma sintering. Materials Research Bulletin, 2013, 48, 2535-2542.	2.7	71
10	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
11	Ti2NiCoSnSb - 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
12	Critical evaluation of glass forming ability criteria. Materials Science and Technology, 2016, 32, 380-400.	0.8	55
13	Large-scale green synthesis of Cu nanoparticles. Environmental Chemistry Letters, 2013, 11, 183-187.	8.3	53
14	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
15	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
16	Oxidation studies of Al alloys: Part II Al-Mg alloy. Corrosion Science, 2019, 155, 97-108.	3.0	38
17	Dielectric relaxation studies of nanocrystalline CuAlO2 using modulus formalism. Journal of Applied Physics, 2007, 102, 104104.	1.1	36
18	Magnetoelectric effect of (100â^'x)BaTiO3â€“(x)NiFe1.98O4â€^(x=20â€“80â€‚wtâ€‰%) particulate nanocomposites. Applied Physics Letters, 2009, 94, .	1.5	36

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19	Microstructural studies on nanocrystalline oxide dispersion strengthened austenitic (Feâ€“18Crâ€“8Niâ€“2Wâ€“0.25Y2O3) alloy synthesized by high energy ball milling and vacuum hot pressing. Journal of Materials Science, 2010, 45, 4858-4865.	1.7	34
20	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
21	Prediction of Glass Forming Ability Using Thermodynamic Parameters. Transactions of the Indian Institute of Metals, 2012, 65, 559-563.	0.7	33
22	Settling behaviour of TiAl₃, TiB₂, TiC and AlB₂particles in liquid Al during grain refinement. International Journal of Cast Metals Research, 2010, 23, 193-204.	0.5	28
23	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
24	Fabrication and Response of Al₇₀Y₁₆Ni₁₀Co₄Glass Reinforced Metal Matrix Composites. Materials and Manufacturing Processes, 2011, 26, 1242-1247.	2.7	26
25	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
26	Initial-stage Sintering Kinetics of Nanocrystalline Tungsten. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3863-3866.	1.1	24
27	Effect of DC bias on electrical conductivity of nanocrystalline Î±-CuSCN. AIP Advances, 2011, 1, .	0.6	24
28	Topologically Close-packed Phase Formation in High Entropy Alloys: A Review of Calphad and Experimental Results. Jom, 2017, 69, 2113-2124.	0.9	24
29	Characterization of silver selenide thin films grown on Crâ€covered Si substrates. Surface and Interface Analysis, 2009, 41, 170-178.	0.8	22
30	The behaviour of aluminium matrix composites under thermal stresses. Science and Engineering of Composite Materials, 2016, 23, 1-20.	0.6	21
31	Influence of oxides on the stability of zinc foam. Journal of Materials Science, 2011, 46, 7806-7814.	1.7	20
32	Prediction of Bulk Metallic Glass Formation in Cuâ€“Zrâ€“Agâ€“Hf System by Thermodynamic and Topological Modeling. Transactions of the Indian Institute of Metals, 2012, 65, 827-831.	0.7	20
33	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
34	Influence of mechanically activated annealing on phase evolution in Al0.3CoCrFeNi high-entropy alloy. Journal of Materials Science, 2019, 54, 14588-14598.	1.7	20
35	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
36	Effect of TiAl3 particles size and distribution on their settling and dissolution behaviour in aluminium. Journal of Materials Science, 2010, 45, 2921-2929.	1.7	17

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37	Processing and properties of Cu based micro- and nano-composites. Bulletin of Materials Science, 2014, 37, 227-238.	0.8	17
38	Influence of bias voltage on dielectric relaxation of nanocrystalline anatase TiO2 using modulus formalism. Journal of Applied Physics, 2011, 109, .	1.1	16
39	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
40	XRD Characterization of Microstructural Evolution During Mechanical Alloying of W-20Âwt%Mo. Transactions of the Indian Institute of Metals, 2013, 66, 409-414.	0.7	16
41	Precipitation kinetics in Al-Si-Mg/TiB2 in-situ composites. Transactions of the Indian Institute of Metals, 2011, 64, 123-126.	0.7	15
42	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
43	Bio-corrosion and Cytotoxicity Studies on Novel Zr55Co30Ti15 and Cu60Zr20Ti20 Metallic Glasses. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2422-2430.	1.1	15
44	Densification mechanisms during reactive spark plasma sintering of Titanium diboride and Zirconium diboride. Philosophical Magazine, 2017, 97, 1588-1609.	0.7	15
45	Development of Ni-Al2O3 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
46	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
47	Effect of DC bias on dielectric properties of nanocrystalline CuAlO2. Electronic Materials Letters, 2013, 9, 207-211.	1.0	12
48	Process and progress of sintering behavior of Cu-Al₂O₃ composites. Emerging Materials Research, 2013, 2, 32-38.	0.4	12
49	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
50	Crystallite size effect on voltage tunable giant dielectric permittivity of nanocrystalline CuO. Electronic Materials Letters, 2013, 9, 59-62.	1.0	11
51	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
52	Evolution of phase constitution with mechanical alloying and spark plasma sintering of nanocrystalline AlxCoCrFeNi (xâ€‰=â€‰0, 0.3, 0.6, 1Âmol) high-entropy alloys. Journal of Materials Research, 2022, 37, 959-975.	1.2	11
53	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
54	Investigation of Structural and Diffuse Phase Transition of New Nano Lead-Free System xBAOÂâ€“ÂyBZTÂâ˜'Â(1Ââ˜'ÂxÂâ˜'Ây) BCT. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5241-5250.	1.1	10

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55	Porous copper template from partially spark plasma-sintered Cu-Zn aggregate via dezincification. Bulletin of Materials Science, 2014, 37, 743-752.	0.8	10
56	Magnetic and magnetoelectric response of Gd doped nickel ferrite and barium titanate nanocomposites. Journal of Applied Physics, 2020, 127, 114104.	1.1	10
57	Compressive creep of SiC whisker/Ti₃SiC₂ composites at high temperature in air. Journal of the American Ceramic Society, 2020, 103, 5952-5965.	1.9	10
58	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
59	Strengthâ€"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
60	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
61	Influence of thermodynamics and local geometry on glass formation in Zr based alloys. Applied Physics Letters, 2008, 93, 061903.	1.5	8
62	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
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	Comparison of Different Processing Routes for the Synthesis of Semiconducting AlSb. Journal of Materials Engineering and Performance, 2018, 27, 6196-6205.	1.2	8
65	Effect of Y2O3 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
66	Characterization of microstructure and precipitation behavior in Al-4Cu-xTiB2 in-situ composite. Transactions of the Indian Institute of Metals, 2011, 64, 117-121.	0.7	5
67	Spark Plasma Sintering Temperature Effect on Structural, Dielectric and Ferroelectric Properties of Ba0.9Sr0.1TiO3 Nanocrystalline Ceramics. Journal of Electronic Materials, 2015, 44, 4308-4315.	1.0	5
68	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
69	Synthesis of Nanocrystalline Î±-Al2O3 from Nanocrystalline Boehmite Derived from High Energy Ball Milling of Gibbiste. Transactions of the Indian Institute of Metals, 2011, 64, 535-540.	0.7	4
70	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
71	Effects of Thermal and Cryogenic Conditionings on Flexural Behavior of Thermally Shocked Cu-Al2O3 Micro and NanoComposites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1567-1578.	1.1	4
72	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

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73	Synthesis and Characterization of Spark Plasma Sintered FeAl and In situ FeAlâ€“Al2O3 Composite. Transactions of the Indian Institute of Metals, 2013, 66, 419-424.	0.7	3
74	Influence of TiB2 Addition on the Precipitation Kinetics in Al-7Si-0.3Mg In Situ TiB2 Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2844-2849.	1.1	3
75	On the Structural Stability of Melt Spun Ribbons of Fe95â^'x Zr x B4Cu1 (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
76	Microstructure engineering of materials. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2010, 2, 125-125.	0.7	2
77	Synthesis and Characterization of CNT Reinforced AA4032 Nanocomposites by High Energy Ball Milling. , 2010, , .		2
78	Nanocomposites of Aluminum Alloys by Rapid Solidification Processing. Transactions of the Indian Institute of Metals, 2012, 65, 647-651.	0.7	2
79	Generation of drugs coated iron nanoparticles through high energy ball milling. Journal of Applied Physics, 2014, 115, 124906.	1.1	2
80	Structureâ€“Property Correlation in Fe-Al2O3 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
81	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
82	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
83	Icosahedral Cluster Energetics in Zr60Cu10Al15Ni15 Bulk Metallic Glass and Their Role on Solidification Behavior. Transactions of the Indian Institute of Metals, 2015, 68, 1107-1112.	0.7	1
84	Implications of Degree of Thermal Shocks on Flexural Properties of Cu-Al2O3 Micro- and Nano-composites. Journal of Materials Engineering and Performance, 2016, 25, 259-266.	1.2	1
85	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
86	Analysis of high-temperature flexural behaviour of copperâ€“alumina micro- and nanocomposites. Emerging Materials Research, 2019, 8, 404-407.	0.4	1
87	Factors Influencing Oxidation Behavior of Metallic Glasses. Transactions of the Indian Institute of Metals, 2015, 68, 1151-1154.	0.7	0
88	Graded microstructure and texture in ultrafine grained multi-layered immiscible bimetallic system. Materialia, 2020, 13, 100830.	1.3	0