Pinaki Bhattacharjee

List of Publications by Year
in descending order

95 papers	3,970 citations	159358 30 h-index	128067 60 g-index
97 all docs	97 docs citations	97 times ranked	2046 citing authors

#	Article	IF	Citations
1	Development of ultrafine grained cobalt-free AlCrFe2Ni2 high entropy alloy with superior mechanical properties by thermo-mechanical processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142190.	2.6	29
2	Microstructure and texture of severely warm-rolled and annealed coarse-grained CoCrNi medium entropy alloy (MEA): A perspective on the initial grain size effect. Journal of Alloys and Compounds, 2022, 904, 163954.	2.8	8
3	Microstructure and texture development in CoCrNi medium entropy alloy processed by severe warm cross-rolling and annealing. Intermetallics, 2022, 143, 107463.	1.8	8
4	Germanium Antimony Bonding in Ba₄Ge₂Sb₂Te₁₀ with Low Thermal Conductivity. Inorganic Chemistry, 2022, 61, 968-981.	1.9	10
5	Microstructure and unusually strong recrystallization texture of the FCC phase of a cost-effective high-strength dual-phase AlCrFe2Ni2 high entropy alloy. Intermetallics, 2022, 145, 107559.	1.8	10
6	Cross-rolling mediated microstructure and texture evolution in severely cold-rolled and annealed ultrafine pearlite. Materials Characterization, 2021, 171, 110751.	1.9	14
7	Severe warm-rolling mediated microstructure and texture of equiatomic CoCrFeMnNi high entropy alloy: A comparison with cold-rolling. Intermetallics, 2021, 129, 107029.	1.8	15
8	Hot Deformation Behavior of Î³-TiAl-Based Tiâ€“45Alâ€“8Nbâ€“6Crâ€“0.2B Alloy in the Î³â€‰+â€‰Î² Phase Field. Springer Proceedings in Materials, 2021, , 135-144.	0.1	0
9	Effects of Cr alloying on the evolution of solidification microstructure and phase transformations of high-Nb containing Î³-TiAl based alloys. Intermetallics, 2021, 131, 107117.	1.8	13
10	Influences of Thermomechanical Processing by Severe Cold and Warm Rolling on the Microstructure, Texture, and Mechanical Properties of an Equiatomic CoCrNi Medium-Entropy Alloy. Journal of Materials Engineering and Performance, 2021, 30, 8956-8971.	1.2	11
11	Microstructure and texture of CoCrNi medium entropy alloy (MEA) processed by severe cryo-rolling: A study vis-a-vis cold-rolling. Intermetallics, 2021, 138, 107345.	1.8	15
12	Reactive molten-flux assisted syntheses of single crystals of Cs19Ln19Mn10Te48 (Ln = Pr and Gd) crystallizing in a new structure type. CrystEngComm, 2021, 23, 8418-8429.	1.3	2
13	Tuning nanostructure using thermo-mechanical processing for enhancing mechanical properties of complex intermetallic containing CoCrFeNi2.1Nbx high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 769, 138489.	2.6	34
14	Compressive creep behavior of a Î³-TiAl based Tiâ€“45Alâ€“8Nbâ€“2Cr-0.2B alloy: The role of Î²(B2)-phase and concurrent phase transformations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 774, 138891.	2.6	26
15	Influence of Process Parameters on Microstructure Evolution During Hot Deformation of a Eutectic High-Entropy Alloy (EHEA). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 6406-6420.	1.1	18
16	High entropy alloys: Key issues under passionate debate. Scripta Materialia, 2020, 188, 54-58.	2.6	122
17	Strain dependent evolution of microstructure and texture in severely cold-rolled and annealed ultrafine pearlite. Materials Characterization, 2020, 169, 110583.	1.9	7
18	Effect of niobium alloying on the microstructure, phase stability and mechanical properties of CoCrFeNi2.1Nbx high entropy alloys: Experimentation and thermodynamic modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139897.	2.6	31

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19	Dynamic recrystallization of a Î²(B2)-Stabilized Î³-TiAl based Tiâ€“45Alâ€“8Nbâ€“2Cr-0.2B alloy: The contributions of constituent phases and Zener-Hollomon parameter modulated recrystallization mechanisms. Journal of Alloys and Compounds, 2020, 828, 154386.	2.8	30
20	Heterogeneous precipitation mediated heterogeneous nanostructure enhances strength-ductility synergy in severely cryo-rolled and annealed CoCrFeNi2.1Nb0.2 high entropy alloy. Scientific Reports, 2020, 10, 6056.	1.6	40
21	Nanostructuring with Structural-Compositional Dual Heterogeneities Enhances Strength-Ductility Synergy in Eutectic High Entropy Alloy. Scientific Reports, 2019, 9, 11505.	1.6	67
22	Engineering heterogeneous microstructure by severe warm-rolling for enhancing strength-ductility synergy in eutectic high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 764, 138226.	2.6	67
23	Microstructure and texture of a severely warm-rolled and annealed AlCoCrFeNi_{2.1} eutectic high entropy alloy. Journal of Physics: Conference Series, 2019, 1270, 012054.	0.3	2
24	Microstructural design by severe warm-rolling for tuning mechanical properties of AlCoCrFeNi2.1 eutectic high entropy alloy. Intermetallics, 2019, 114, 106601.	1.8	26
25	Texture homogeneity and stability in severely warm-rolled and annealed ultrafine pearlite. Materials Science and Technology, 2019, 35, 437-447.	0.8	6
26	Development and homogeneity of microstructure and texture in a lamellar AlCoCrFeNi_{2.1}eutectic high-entropy alloy severely strained in the warm-deformation regime. Journal of Materials Research, 2019, 34, 687-699.	1.2	21
27	Intrinsic extremely low thermal conductivity in BaIn2Te4: Synthesis, crystal structure, Raman spectroscopy, optical, and thermoelectric properties. Journal of Alloys and Compounds, 2019, 802, 385-393.	2.8	11
28	Microstructural Characterization by Automated Crystal Orientation and Phase Mapping by Precession Electron Diffraction in TEM: Application to Hot Deformation of a Î³-TiAl-based Alloy. Microscopy and Microanalysis, 2019, 25, 1457-1465.	0.2	2
29	Physical metallurgy of high-entropy alloys. , 2019, , 31-50.		2
30	Solid solution phases and their microstructures in HEAs. , 2019, , 119-144.		1
31	Special subgroups of high-entropy alloys. , 2019, , 145-163.		2
32	High-entropy ceramics. , 2019, , 165-176.		54
33	High-entropy alloy coatings. , 2019, , 177-193.		71
34	Structural properties. , 2019, , 195-232.		1
35	Applications and future directions. , 2019, , 247-257.		0
36	Hot deformation of high-Nb-containing Î³-TiAl alloy in the temperature range of 1000â€“1200ÂÂ°C: microstructural attributes to hot workability. SN Applied Sciences, 2019, 1, 1.	1.5	5

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37	Effect of prolonged aging on phase evolution and mechanical properties of intermetallic strengthened CoCrFeNi2.1Nbx high entropy alloys. Materials Letters, 2019, 248, 119-122.	1.3	17
38	High temperature compressive flow behavior and associated microstructural development in a Î²-stabilized high Nb-containing Î³-TiAl based alloy. Journal of Alloys and Compounds, 2019, 788, 573-585.	2.8	47
39	Simultaneous Strength-Ductility Enhancement of a Nano-Lamellar AlCoCrFeNi2.1 Eutectic High Entropy Alloy by Cryo-Rolling and Annealing. Scientific Reports, 2018, 8, 3276.	1.6	209
40	Influence of strain on the formation of cold-rolling and grain growth textures of an equiatomic HfZrTiTaNb refractory high entropy alloy. Materials Characterization, 2018, 136, 286-292.	1.9	28
41	Strain-path controlled microstructure, texture and hardness evolution in cryo-deformed AlCoCrFeNi 2.1 eutectic high entropy alloy. Intermetallics, 2018, 97, 12-21.	1.8	31
42	Effect of low temperature on tensile properties of AlCoCrFeNi2.1 eutectic high entropy alloy. Materials Chemistry and Physics, 2018, 210, 207-212.	2.0	98
43	Hot deformation behavior of CoCrFeMnNi FCC high entropy alloy. Materials Chemistry and Physics, 2018, 210, 176-186.	2.0	119
44	Evolution of microstructure and microtexture during hot deformation in an advanced P/M nickel base superalloy. Materials Characterization, 2018, 146, 217-236.	1.9	58
45	On the Constraint Factor and Tabor Coefficient Pertinent to Spherical Indentation. Transactions of the Indian Institute of Metals, 2018, 71, 2893-2901.	0.7	2
46	Uniaxial compression behaviour of porous copper: Experiments and modelling. Materials Today Communications, 2018, 16, 320-329.	0.9	5
47	Cold-rolling and recrystallization textures of a nano-lamellar AlCoCrFeNi2.1 eutectic high entropy alloy. Intermetallics, 2017, 84, 42-51.	1.8	102
48	Effect of strain path on microstructure and texture formation in cold-rolled and annealed FCC equiatomic CoCrFeMnNi high entropy alloy. Intermetallics, 2017, 87, 94-103.	1.8	23
49	Superplastic-like flow in a fine-grained equiatomic CoCrFeMnNi high-entropy alloy. Materials Research Letters, 2017, 5, 408-414.	4.1	67
50	Work hardening characteristics and microstructural evolution during hot deformation of a nickel superalloy at moderate strain rates. Journal of Alloys and Compounds, 2017, 709, 394-409.	2.8	88
51	Severe plastic deformation driven nanostructure and phase evolution in a Al 0.5 CoCrFeMnNi dual phase high entropy alloy. Intermetallics, 2017, 91, 150-157.	1.8	63
52	Deformation and Recrystallization Behavior of the Cast StructureÂin Large Size, High Strength Steel Ingots: Experimentation and Modeling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4297-4313.	1.1	16
53	Effect of severe cold-rolling and annealing on microstructure and mechanical properties of AlCoCrFeNi_{2.1} eutectic high entropy alloy. IOP Conference Series: Materials Science and Engineering, 2017, 194, 012018.	0.3	27
54	Microstructure, Texture, and Tensile Properties of a Severely Warmâ€Rolled and Annealed Duplex Stainless Steel. Steel Research International, 2016, 87, 472-483.	1.0	18

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55	Strain rate dependent microstructural evolution during hot deformation of a hot isostatically processed nickel base superalloy. Journal of Alloys and Compounds, 2016, 681, 28-42.	2.8	137
56	Tailoring nanostructures and mechanical properties of AlCoCrFeNi2.1 eutectic high entropy alloy using thermo-mechanical processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 675, 99-109.	2.6	252
57	The effect of heating rate on microstructure and texture formation during annealing of heavily cold-rolled equiatomic CoCrFeMnNi high entropy alloy. Journal of Alloys and Compounds, 2016, 688, 752-761.	2.8	41
58	Evolution of microstructure and texture during thermo-mechanical processing of a two phase Al0.5CoCrFeMnNi high entropy alloy. Materials Characterization, 2016, 118, 417-424.	1.9	65
59	Ultrafine-Grained AlCoCrFeNi_{2.1}Eutectic High-Entropy Alloy. Materials Research Letters, 2016, 4, 174-179.	4.1	296
60	Microstructure and texture of heavily cold-rolled and annealed fcc equiatomic medium to high entropy alloys. Journal of Alloys and Compounds, 2016, 664, 109-119.	2.8	91
61	Effect of heavy cryo-rolling on the evolution of microstructure and texture during annealing of equiatomic CoCrFeMnNi high entropy alloy. Intermetallics, 2016, 69, 1-9.	1.8	108
62	Microtexture of constituent phases in a heavily warm- rolled and annealed duplex stainless steel. IOP Conference Series: Materials Science and Engineering, 2015, 82, 012046.	0.3	1
63	Evolution of microstructure and texture during annealing of Al-2.5%Mg-0.2%Sc severely deformed by a combination of accumulative roll bonding (ARB) and conventional rolling. IOP Conference Series: Materials Science and Engineering, 2015, 82, 012045.	0.3	2
64	Effect of starting grain size on the evolution of microstructure and texture during thermo-mechanical processing of CoCrFeMnNi high entropy alloy. Journal of Alloys and Compounds, 2015, 647, 82-96.	2.8	66
65	Evolution of microstructure and crystallographic texture in severely cold rolled high entropy equiatomic CoCrFeMnNi alloy during annealing. IOP Conference Series: Materials Science and Engineering, 2015, 82, 012068.	0.3	13
66	Constitutive modeling for predicting peak stress characteristics during hot deformation of hot isostatically processed nickel-base superalloy. Journal of Materials Science, 2015, 50, 6444-6456.	1.7	75
67	Nucleation behavior and formation of recrystallization texture in pre-recovery treated heavily cold and warm-rolled Alâ€“2.5 wt.%Mg alloy. Materials Characterization, 2015, 106, 141-151.	1.9	11
68	Analysis of microstructure and microtexture during grain growth in low stacking fault energy equiatomic CoCrFeMnNi high entropy and Niâ€“60wt.%Co alloys. Journal of Alloys and Compounds, 2015, 637, 267-276.	2.8	64
69	Effect of cold-rolling strain on the evolution of annealing texture of equiatomic CoCrFeMnNi high entropy alloy. Materials Characterization, 2015, 109, 189-197.	1.9	65
70	Effect of Prior Recovery Treatment on the Evolution of Cube Texture During Annealing of Severely Warm-Rolled Al-2.5Âwt pctMg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4966-4977.	1.1	7
71	The Effect of Strain Reversal during High Pressure Torsion on the Microstructure Evolution and Texture of Aluminum Alloys. , 2015, , 107-114.		0
72	Evolution of Microstructure and Texture during Isothermal Annealing of a Heavily Warm-rolled Duplex Steel. ISIJ International, 2014, 54, 2844-2853.	0.6	18

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73	Microstructure and Texture of Al-2.5wt.%Mg Processed by Combining Accumulative Roll Bonding and Conventional Rolling. Journal of Materials Engineering and Performance, 2014, 23, 4453-4462.	1.2	6
74	Evolution of Microstructure and Texture During Warm Rolling of a Duplex Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2180-2191.	1.1	30
75	Effect of Change in Strain Path During Cold Rolling on the Evolution of Microstructure and Texture in Al and Al-2.5%Mg. Journal of Materials Engineering and Performance, 2014, 23, 458-468.	1.2	20
76	Microstructure and texture evolution during annealing of equiatomic CoCrFeMnNi high-entropy alloy. Journal of Alloys and Compounds, 2014, 587, 544-552.	2.8	413
77	Electron backscatter diffraction study of deformation and recrystallization textures of individual phases in a cross-rolled duplex steel. Materials Characterization, 2014, 96, 263-272.	1.9	28
78	Annealing textures of severely cold and warm-rolled Alâ€“2.5 wt.%Mg alloy. Journal of Alloys and Compounds, 2014, 615, 950-961.	2.8	19
79	Texture Evolution During Cross Rolling and Annealing of High-Purity Nickel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2707-2716.	1.1	29
80	The effect of starting grain size on the evolution of microstructure and texture in nickel during processing by cross-rolling. Materials Characterization, 2013, 76, 21-27.	1.9	39
81	Recrystallization Texture of Heavily Cold Rolled Polycrystalline Nickel Sheets with and without Strong Starting Cube Texture. Materials Science Forum, 2013, 753, 293-296.	0.3	1
82	Evolution of Microstructure and Texture During Cold Rolling and Annealing of a Highly Cube-Textured ({001}$$ leftlangle {100} ightangle $$) Polycrystalline Nickel Sheet. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2442-2452.	1.1	5
83	Development of highly cube textured nickel superconductor substrate tapes by Accumulative Roll Bonding (ARB). International Journal of Materials Research, 2011, 102, 173-182.	0.1	11
84	Effect of Initial Grain Size on the Evolution of {001}âŒ©100âŒª Texture in Severely Deformed and Annealed High-Purity Nickel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2769-2780.	1.1	17
85	Evolution of Deformation and Recrystallization Textures in High-Purity Ni and the Ni-5 at. pct W Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2856-2870.	1.1	8
86	Cold rolling and recrystallization textures of a Niâ€“5 at.% W alloy. Acta Materialia, 2009, 57, 2166-2179.	3.8	81
87	Texture and mechanical properties of cold deformed and annealed multilayer Ni base substrate tapes prepared by a powder metallurgy route. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 488, 84-91.	2.6	9
88	Processing and Characterization of Ni Base Coated Superconductor Substrate Tapes With Layered Architecture. IEEE Transactions on Applied Superconductivity, 2008, 18, 1704-1710.	1.1	1
89	Enhancement of cube texture in Ni by the addition of W or Mo. Philosophical Magazine, 2007, 87, 2417-2426.	0.7	10
90	Effect of processing variables on cube texture formation in powder metallurgically prepared Ni and Niâ€“W alloy tapes for use as substrates for coated conductor applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 459, 309-323.	2.6	26

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91	Effect of sintering temperature on grain boundary character distribution in pure nickel. Scripta Materialia, 2007, 56, 13-16.	2.6	35
92	Nickel base substrate tapes for coated superconductor applications. Journal of Materials Science, 2007, 42, 1984-2001.	1.7	30
93	Recrystallization textures of powder metallurgically prepared pure Ni, Niâ€“W and Niâ€“Mo alloy tapes for use as substrates for coated superconductors. Physica C: Superconductivity and Its Applications, 2006, 449, 116-121.	0.6	11
94	Development of cube texture in pure Ni, Niâ€“W and Niâ€“Mo alloys prepared by the powder metallurgy route. Scripta Materialia, 2005, 53, 1477-1481.	2.6	29
95	Development of Cube Texture in Cold-Rolled and Annealed Multilayer Tapes for Coated Superconductor Applications. Ceramic Transactions, 0, , 381-390.	0.1	0