Pinaki Bhattacharjee

List of Publications by Citations

97 papers	2,647 citations	28 h-index	49 g-index
97 ext. papers	3,295 ext. citations	3.5 avg, IF	5.71 L-index

#	Paper	IF	Citations
97	Microstructure and texture evolution during annealing of equiatomic CoCrFeMnNi high-entropy alloy. *Journal of Alloys and Compounds*, **2014**, 587, 544-552	5.7	321
96	Ultrafine-Grained AlCoCrFeNi2.1 Eutectic High-Entropy Alloy. *Materials Research Letters*, **2016**, 4, 174-179	7.4	205
95	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	5.3	146
94	Simultaneous Strength-Ductility Enhancement of a Nano-Lamellar AlCoCrFeNi Eutectic High Entropy Alloy by Cryo-Rolling and Annealing. *Scientific Reports*, **2018**, 8, 3276	4.9	126
93	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	5.7	89
92	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	3.5	82
91	High entropy alloys: Key issues under passionate debate. *Scripta Materialia*, **2020**, 188, 54-58	5.6	75
90	Hot deformation behavior of CoCrFeMnNi FCC high entropy alloy. *Materials Chemistry and Physics*, **2018**, 210, 176-186	4.4	73
89	Cold-rolling and recrystallization textures of a nano-lamellar AlCoCrFeNi2.1 eutectic high entropy alloy. *Intermetallics*, **2017**, 84, 42-51	3.5	68
88	Cold rolling and recrystallization textures of a Ni□ at.% W alloy. *Acta Materialia*, **2009**, 57, 2166-2179	8.4	67
87	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	5.7	63
86	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	5.7	62
85	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	4.3	61
84	Effect of low temperature on tensile properties of AlCoCrFeNi2.1 eutectic high entropy alloy. *Materials Chemistry and Physics*, **2018**, 210, 207-212	4.4	56
83	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	5.7	55
82	Analysis of microstructure and microtexture during grain growth in low stacking fault energy equiatomic CoCrFeMnNi high entropy and Ni□0wt.%Co alloys. *Journal of Alloys and Compounds*, **2015**, 637, 267-276	5.7	54
81	High-entropy alloy coatings **2019**, 177-193		46

80	Evolution of microstructure and texture during thermo-mechanical processing of a two phase Al0.5CoCrFeMnNi high entropy alloy. *Materials Characterization*, **2016**, 118, 417-424	3.9	46
79	Superplastic-like flow in a fine-grained equiatomic CoCrFeMnNi high-entropy alloy. *Materials Research Letters*, **2017**, 5, 408-414	7.4	44
78	Severe plastic deformation driven nanostructure and phase evolution in a Al 0.5 CoCrFeMnNi dual phase high entropy alloy. *Intermetallics*, **2017**, 91, 150-157	3.5	44
77	Effect of cold-rolling strain on the evolution of annealing texture of equiatomic CoCrFeMnNi high entropy alloy. *Materials Characterization*, **2015**, 109, 189-197	3.9	39
76	Nanostructuring with Structural-Compositional Dual Heterogeneities Enhances Strength-Ductility Synergy in Eutectic High Entropy Alloy. *Scientific Reports*, **2019**, 9, 11505	4.9	38
75	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	3.9	34
74	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	5.3	32
73	Effect of sintering temperature on grain boundary character distribution in pure nickel. *Scripta Materialia*, **2007**, 56, 13-16	5.6	30
72	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	2.3	29
71	Nickel base substrate tapes for coated superconductor applications. *Journal of Materials Science*, **2007**, 42, 1984-2001	4.3	29
70	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	5.7	28
69	Development of cube texture in pure Ni, Ni□W and Ni□Mo alloys prepared by the powder metallurgy route. *Scripta Materialia*, **2005**, 53, 1477-1481	5.6	27
68	High temperature compressive flow behavior and associated microstructural development in a □stabilized high Nb-containing □TiAl based alloy. *Journal of Alloys and Compounds*, **2019**, 788, 573-585	5.7	26
67	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	2.3	25
66	High-entropy ceramics **2019**, 165-176		24
65	Evolution of microstructure and microtexture during hot deformation in an advanced P/M nickel base superalloy. *Materials Characterization*, **2018**, 146, 217-236	3.9	24
64	Effect of processing variables on cube texture formation in powder metallurgically prepared Ni and Ni□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	5.3	23
63	Electron backscatter diffraction study of deformation and recrystallization textures of individual phases in a cross-rolled duplex steel. *Materials Characterization*, **2014**, 96, 263-272	3.9	21

62	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	3.9	20
61	Strain-path controlled microstructure, texture and hardness evolution in cryo-deformed AlCoCrFeNi2.1 eutectic high entropy alloy. *Intermetallics*, **2018**, 97, 12-21	3.5	20
60	Heterogeneous precipitation mediated heterogeneous nanostructure enhances strength-ductility synergy in severely cryo-rolled and annealed CoCrFeNiNb high entropy alloy. *Scientific Reports*, **2020**, 10, 6056	4.9	19
59	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	5.3	19
58	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	3.5	17
57	Effect of severe cold-rolling and annealing on microstructure and mechanical properties of AlCoCrFeNi2.1 eutectic high entropy alloy. *IOP Conference Series: Materials Science and Engineering*, **2017**, 194, 012018	0.4	17
56	Evolution of Microstructure and Texture during Isothermal Annealing of a Heavily Warm-rolled Duplex Steel. *ISIJ International*, **2014**, 54, 2844-2853	1.7	17
55	Dynamic recrystallization of a (B2)-Stabilized TiAl based Ti-45Al-8Nb-2Cr-0.2B alloy: The contributions of constituent phases and Zener-Hollomon parameter modulated recrystallization mechanisms. *Journal of Alloys and Compounds*, **2020**, 828, 154386	5.7	16
54	Annealing textures of severely cold and warm-rolled Al-2.5 wt.%Mg alloy. *Journal of Alloys and Compounds*, **2014**, 615, 950-961	5.7	16
53	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	1.6	15
52	Effect of Initial Grain Size on the Evolution of {001}<100> Texture in Severely Deformed and Annealed High-Purity Nickel. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 2769-2780	2.3	14
51	Microstructure, Texture, and Tensile Properties of a Severely Warm-Rolled and Annealed Duplex Stainless Steel. *Steel Research International*, **2016**, 87, 472-483	1.6	14
50	Microstructural design by severe warm-rolling for tuning mechanical properties of AlCoCrFeNi2.1 eutectic high entropy alloy. *Intermetallics*, **2019**, 114, 106601	3.5	13
49	Deformation and Recrystallization Behavior of the Cast Structure in Large Size, High Strength Steel Ingots: Experimentation and Modeling. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 4297-4313	2.3	13
48	Compressive creep behavior of a TiAl based Ti-45Al-8Nb-2Cr-0.2B alloy: The role of (B2)-phase and concurrent phase transformations. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 774, 138891	5.3	13
47	Development and homogeneity of microstructure and texture in a lamellar AlCoCrFeNi2.1 eutectic high-entropy alloy severely strained in the warm-deformation regime. *Journal of Materials Research* , **2019**, 34, 687-699	2.5	11
46	Effect of prolonged aging on phase evolution and mechanical properties of intermetallic strengthened CoCrFeNi2.1Nbx high entropy alloys. *Materials Letters*, **2019**, 248, 119-122	3.3	11
45	Nucleation behavior and formation of recrystallization texture in pre-recovery treated heavily cold and warm-rolled Al-2.5 wt.%Mg alloy. *Materials Characterization*, **2015**, 106, 141-151	3.9	11

44	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	5.3	11
43	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	0.4	11
42	Development of highly cube textured nickel superconductor substrate tapes by Accumulative Roll Bonding (ARB). *International Journal of Materials Research*, **2011**, 102, 173-182	0.5	11
41	Recrystallization textures of powder metallurgically prepared pure Ni, Ni–W and Ni–Mo alloy tapes for use as substrates for coated superconductors. *Physica C: Superconductivity and Its Applications*, **2006**, 449, 116-121	1.3	11
40	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	5.3	9
39	Effect of Prior Recovery Treatment on the Evolution of Cube Texture During Annealing of Severely Warm-Rolled Al-2.5 wt pctMg Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 4966-4977	2.3	7
38	Enhancement of cube texture in Ni by the addition of W or Mo. *Philosophical Magazine*, **2007**, 87, 2417-2426	1.6	7
37	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	2.3	7
36	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	5.7	6
35	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	1.6	6
34	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	2.3	6
33	Effects of Cr alloying on the evolution of solidification microstructure and phase transformations of high-Nb containing γ-TiAl based alloys. *Intermetallics*, **2021**, 131, 107117	3.5	6
32	Cross-rolling mediated microstructure and texture evolution in severely cold-rolled and annealed ultrafine pearlite. *Materials Characterization*, **2021**, 171, 110751	3.9	6
31	Texture homogeneity and stability in severely warm-rolled and annealed ultrafine pearlite. *Materials Science and Technology*, **2019**, 35, 437-447	1.5	5
30	Evolution of Microstructure and Texture During Cold Rolling and Annealing of a Highly Cube-Textured ({001}⟨ leftlangle {100} rightrangle ⟩) Polycrystalline Nickel Sheet. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 2442-2452	2.3	5
29	Severe warm-rolling mediated microstructure and texture of equiatomic CoCrFeMnNi high entropy alloy: A comparison with cold-rolling. *Intermetallics*, **2021**, 129, 107029	3.5	5
28	Hot deformation of high-Nb-containing γ-TiAl alloy in the temperature range of 1000–1200 °C: microstructural attributes to hot workability. *SN Applied Sciences*, **2019**, 1, 1	1.8	4
27	Uniaxial compression behaviour of porous copper: Experiments and modelling. *Materials Today Communications*, **2018**, 16, 320-329	2.5	4

26	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	5.3	4
25	Strain dependent evolution of microstructure and texture in severely cold-rolled and annealed ultrafine pearlite. *Materials Characterization*, **2020**, 169, 110583	3.9	4
24	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	3.5	4
23	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*,1	1.6	3
22	Special subgroups of high-entropy alloys **2019**, 145-163		2
21	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	0.4	2
20	Germanium Antimony Bonding in BaGeSbTe with Low Thermal Conductivity.. *Inorganic Chemistry*, **2021**,	5.1	2
19	On the Constraint Factor and Tabor Coefficient Pertinent to Spherical Indentation. *Transactions of the Indian Institute of Metals*, **2018**, 71, 2893-2901	1.2	2
18	Microstructure and texture of a severely warm-rolled and annealed AlCoCrFeNi2.1 eutectic high entropy alloy. *Journal of Physics: Conference Series*, **2019**, 1270, 012054	0.3	1
17	Microstructural Characterization by Automated Crystal Orientation and Phase Mapping by Precession Electron Diffraction in TEM: Application to Hot Deformation of a -TiAl-based Alloy. *Microscopy and Microanalysis*, **2019**, 25, 1457-1465	0.5	1
16	Physical metallurgy of high-entropy alloys **2019**, 31-50		1
15	The Effect of Strain Reversal during High Pressure Torsion on the Micro structure Evolution and Texture of Aluminum Alloys **2015**, 107-114		1
14	Microtexture of constituent phases in a heavily warm- rolled and annealed duplex stainless steel. *IOP Conference Series: Materials Science and Engineering*, **2015**, 82, 012046	0.4	1
13	Recrystallization Texture of Heavily Cold Rolled Polycrystalline Nickel Sheets with and without Strong Starting Cube Texture. *Materials Science Forum*, **2013**, 753, 293-296	0.4	1
12	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	5.7	1
11	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	3.3	1
10	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	3.5	1
9	Processing and Characterization of Ni Base Coated Superconductor Substrate Tapes With Layered Architecture. *IEEE Transactions on Applied Superconductivity*, **2008**, 18, 1704-1710	1.8	0

8	Microstructure and texture development in CoCrNi medium entropy alloy processed by severe warm cross-rolling and annealing. *Intermetallics*, **2022**, 143, 107463	3.5	0
7	Solid solution phases and their microstructures in HEAs **2019**, 119-144		
6	Structural properties **2019**, 195-232		
5	Applications and future directions **2019**, 247-257		
4	Evolution of Microstructure and Texture during Severe Cold Rolling and Annealing of Al-2.5% Mg and Al-2.5%Mg-0.2%Sc Alloys **2014**, 397-404		
3	The Effect of Strain Reversal during High Pressure Torsion on the Microstructure Evolution and Texture of Aluminum Alloys **2015**, 107-114		
2	Development of Cube Texture in Cold-Rolled and Annealed Multilayer Tapes for Coated Superconductor Applications. *Ceramic Transactions*,381-390	0.1	
1	Hot Deformation Behavior of □TiAl-Based Ti□45Al□8Nb□3Cr□0.2B Alloy in the □+□Phase Field. *Springer Proceedings in Materials*, **2021**, 135-144	0.2	