

Pinaki Bhattacharjee

List of Publications by Year in descending order

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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	Microstructure and texture evolution during annealing of equiatomic CoCrFeMnNi high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2014, 587, 544-552.	2.8	413
2	Ultrafine-Grained AlCoCrFeNi _{2.1} Eutectic High-Entropy Alloy. <i>Materials Research Letters</i> , 2016, 4, 174-179.	4.1	296
3	Tailoring nanostructures and mechanical properties of AlCoCrFeNi _{2.1} eutectic high entropy alloy using thermo-mechanical processing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 675, 99-109.	2.6	252
4	Simultaneous Strength-Ductility Enhancement of a Nano-Lamellar AlCoCrFeNi _{2.1} Eutectic High Entropy Alloy by Cryo-Rolling and Annealing. <i>Scientific Reports</i> , 2018, 8, 3276.	1.6	209
5	Strain rate dependent microstructural evolution during hot deformation of a hot isostatically processed nickel base superalloy. <i>Journal of Alloys and Compounds</i> , 2016, 681, 28-42.	2.8	137
6	High entropy alloys: Key issues under passionate debate. <i>Scripta Materialia</i> , 2020, 188, 54-58.	2.6	122
7	Hot deformation behavior of CoCrFeMnNi FCC high entropy alloy. <i>Materials Chemistry and Physics</i> , 2018, 210, 176-186.	2.0	119
8	Effect of heavy cryo-rolling on the evolution of microstructure and texture during annealing of equiatomic CoCrFeMnNi high entropy alloy. <i>Intermetallics</i> , 2016, 69, 1-9.	1.8	108
9	Cold-rolling and recrystallization textures of a nano-lamellar AlCoCrFeNi _{2.1} eutectic high entropy alloy. <i>Intermetallics</i> , 2017, 84, 42-51.	1.8	102
10	Effect of low temperature on tensile properties of AlCoCrFeNi _{2.1} eutectic high entropy alloy. <i>Materials Chemistry and Physics</i> , 2018, 210, 207-212.	2.0	98
11	Microstructure and texture of heavily cold-rolled and annealed fcc equiatomic medium to high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2016, 664, 109-119.	2.8	91
12	Work hardening characteristics and microstructural evolution during hot deformation of a nickel superalloy at moderate strain rates. <i>Journal of Alloys and Compounds</i> , 2017, 709, 394-409.	2.8	88
13	Cold rolling and recrystallization textures of a Ni-5 at.% W alloy. <i>Acta Materialia</i> , 2009, 57, 2166-2179.	3.8	81
14	Constitutive modeling for predicting peak stress characteristics during hot deformation of hot isostatically processed nickel-base superalloy. <i>Journal of Materials Science</i> , 2015, 50, 6444-6456.	1.7	75
15	High-entropy alloy coatings. , 2019, , 177-193.		71
16	Superplastic-like flow in a fine-grained equiatomic CoCrFeMnNi high-entropy alloy. <i>Materials Research Letters</i> , 2017, 5, 408-414.	4.1	67
17	Nanostructuring with Structural-Compositional Dual Heterogeneities Enhances Strength-Ductility Synergy in Eutectic High Entropy Alloy. <i>Scientific Reports</i> , 2019, 9, 11505.	1.6	67
18	Engineering heterogeneous microstructure by severe warm-rolling for enhancing strength-ductility synergy in eutectic high entropy alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 764, 138226.	2.6	67

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19	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
20	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
21	Evolution of microstructure and texture during thermo-mechanical processing of a two phase Al _{0.5} CoCrFeMnNi high entropy alloy. Materials Characterization, 2016, 118, 417-424.	1.9	65
22	Analysis of microstructure and microtexture during grain growth in low stacking fault energy equiatomic CoCrFeMnNi high entropy and Ni-60wt.%Co alloys. Journal of Alloys and Compounds, 2015, 637, 267-276.	2.8	64
23	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
24	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
25	High-entropy ceramics. , 2019, , 165-176.		54
26	High temperature compressive flow behavior and associated microstructural development in a γ -stabilized high Nb-containing β -TiAl based alloy. Journal of Alloys and Compounds, 2019, 788, 573-585.	2.8	47
27	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
28	Heterogeneous precipitation mediated heterogeneous nanostructure enhances strength-ductility synergy in severely cryo-rolled and annealed CoCrFeNi _{2.1} Nb _{0.2} high entropy alloy. Scientific Reports, 2020, 10, 6056.	1.6	40
29	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
30	Effect of sintering temperature on grain boundary character distribution in pure nickel. Scripta Materialia, 2007, 56, 13-16.	2.6	35
31	Tuning nanostructure using thermo-mechanical processing for enhancing mechanical properties of complex intermetallic containing CoCrFeNi _{2.1} Nbx high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 769, 138489.	2.6	34
32	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
33	Effect of niobium alloying on the microstructure, phase stability and mechanical properties of CoCrFeNi _{2.1} Nbx high entropy alloys: Experimentation and thermodynamic modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139897.	2.6	31
34	Nickel base substrate tapes for coated superconductor applications. Journal of Materials Science, 2007, 42, 1984-2001.	1.7	30
35	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
36	Dynamic recrystallization of a γ (B2)-Stabilized β -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.	2.8	30

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37	Development of cube texture in pure Ni, Ni ⁴⁰ W and Ni ⁴⁰ Mo alloys prepared by the powder metallurgy route. Scripta Materialia, 2005, 53, 1477-1481.	2.6	29
38	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
39	Development of ultrafine grained cobalt-free AlCrFe ₂ Ni ₂ 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
40	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
41	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
42	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
43	Effect of processing variables on cube texture formation in powder metallurgically prepared Ni and Ni ⁴⁰ 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
44	Microstructural design by severe warm-rolling for tuning mechanical properties of AlCoCrFeNi _{2.1} eutectic high entropy alloy. Intermetallics, 2019, 114, 106601.	1.8	26
45	Compressive creep behavior of a β -TiAl based Ti ⁴⁵ Al ⁴⁸ Nb ² Cr _{0.2} B alloy: The role of β (B ₂)-phase and concurrent phase transformations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 774, 138891.	2.6	26
46	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
47	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
48	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
49	Annealing textures of severely cold and warm-rolled Al ⁴ 2.5 wt.%Mg alloy. Journal of Alloys and Compounds, 2014, 615, 950-961.	2.8	19
50	Evolution of Microstructure and Texture during Isothermal Annealing of a Heavily Warm-rolled Duplex Steel. ISIJ International, 2014, 54, 2844-2853.	0.6	18
51	Microstructure, Texture, and Tensile Properties of a Severely Warm-Rolled and Annealed Duplex Stainless Steel. Steel Research International, 2016, 87, 472-483.	1.0	18
52	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
53	Effect of Initial Grain Size on the Evolution of {001} _h CE ¹⁰⁰ CE ³ 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
54	Effect of prolonged aging on phase evolution and mechanical properties of intermetallic strengthened CoCrFeNi _{2.1} Nbx high entropy alloys. Materials Letters, 2019, 248, 119-122.	1.3	17

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55	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.	1.1	16
56	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
57	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
58	Cross-rolling mediated microstructure and texture evolution in severely cold-rolled and annealed ultrafine pearlite. Materials Characterization, 2021, 171, 110751.	1.9	14
59	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
60	Effects of Cr alloying on the evolution of solidification microstructure and phase transformations of high-Nb containing β -TiAl based alloys. Intermetallics, 2021, 131, 107117.	1.8	13
61	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.	0.6	11
62	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
63	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.	1.9	11
64	Intrinsic extremely low thermal conductivity in Ba ₂ Te ₄ : Synthesis, crystal structure, Raman spectroscopy, optical, and thermoelectric properties. Journal of Alloys and Compounds, 2019, 802, 385-393.	2.8	11
65	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
66	Enhancement of cube texture in Ni by the addition of W or Mo. Philosophical Magazine, 2007, 87, 2417-2426.	0.7	10
67	Germanium Antimony Bonding in Ba ₄ Ge ₂ Sb ₂ Te ₁₀ with Low Thermal Conductivity. Inorganic Chemistry, 2022, 61, 968-981.	1.9	10
68	Microstructure and unusually strong recrystallization texture of the FCC phase of a cost-effective high-strength dual-phase AlCrFe ₂ Ni ₂ high entropy alloy. Intermetallics, 2022, 145, 107559.	1.8	10
69	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
70	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
71	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
72	Microstructure and texture development in CoCrNi medium entropy alloy processed by severe warm cross-rolling and annealing. Intermetallics, 2022, 143, 107463.	1.8	8

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73	Effect of Prior Recovery Treatment on the Evolution of Cube Texture During Annealing of Severely Warm-Rolled Al-2.5wt pctMg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4966-4977.	1.1	7
74	Strain dependent evolution of microstructure and texture in severely cold-rolled and annealed ultrafine pearlite. Materials Characterization, 2020, 169, 110583.	1.9	7
75	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
76	Texture homogeneity and stability in severely warm-rolled and annealed ultrafine pearlite. Materials Science and Technology, 2019, 35, 437-447.	0.8	6
77	Evolution of Microstructure and Texture During Cold Rolling and Annealing of a Highly Cube-Textured $\{001\} \llcorner \{100\} \lrcorner$ Polycrystalline Nickel Sheet. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2442-2452.	1.1	5
78	Uniaxial compression behaviour of porous copper: Experiments and modelling. Materials Today Communications, 2018, 16, 320-329.	0.9	5
79	Hot deformation of high-Nb-containing $\hat{3}$ -TiAl alloy in the temperature range of 1000â€“1200Â° C: microstructural attributes to hot workability. SN Applied Sciences, 2019, 1, 1.	1.5	5
80	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
81	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
82	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
83	Microstructural Characterization by Automated Crystal Orientation and Phase Mapping by Precession Electron Diffraction in TEM: Application to Hot Deformation of a $\hat{3}$ -TiAl-based Alloy. Microscopy and Microanalysis, 2019, 25, 1457-1465.	0.2	2
84	Physical metallurgy of high-entropy alloys. , 2019, , 31-50.		2
85	Special subgroups of high-entropy alloys. , 2019, , 145-163.		2
86	Reactive molten-flux assisted syntheses of single crystals of Cs ₁₉ Ln ₁₉ Mn ₁₀ Te ₄₈ (Ln = Pr and Gd) crystallizing in a new structure type. CrystEngComm, 2021, 23, 8418-8429.	1.3	2
87	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
88	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
89	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
90	Solid solution phases and their microstructures in HEAs. , 2019, , 119-144.		1

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91	Structural properties. , 2019, , 195-232.		1
92	Applications and future directions. , 2019, , 247-257.		0
93	Hot Deformation Behavior of $\text{Ti-45Al-8Nb-6Cr-0.2B}$ Alloy in the β Phase Field. Springer Proceedings in Materials, 2021, , 135-144.	0.1	0
94	Development of Cube Texture in Cold-Rolled and Annealed Multilayer Tapes for Coated Superconductor Applications. Ceramic Transactions, 0, , 381-390.	0.1	0
95	The Effect of Strain Reversal during High Pressure Torsion on the Microstructure Evolution and Texture of Aluminum Alloys. , 2015, , 107-114.		0