Andrea Bachmaier

List of Publications by Year
in descending order

59	2,100	361413 20	233421 45
papers	citations	h-index	g-index

59	59	59	1215
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxide-stabilized microstructure of severe plastically deformed CuCo alloys. Journal of Alloys and Compounds, 2022, 901, 163616.	5.5	4
2	Nanomaterials by severe plastic deformation: review of historical developments and recent advances. Materials Research Letters, 2022, 10, 163-256.	8.7	215
3	Manufacturing of Textured Bulk Fe-SmCo5 Magnets by Severe Plastic Deformation. Nanomaterials, 2022, 12, 963.	4.1	7
4	Soft Magnetic Properties of Ultra-Strong and Nanocrystalline Pearlitic Wires. Nanomaterials, 2022, 12, 23.	4.1	3
5	The effect of grain size on bubble formation and evolution in helium-irradiated Cu-Fe-Ag. Materials Characterization, 2021, 171, 110822.	4.4	11
6	On the magnetic nanostructure of a Coâ€“Cu alloy processed by high-pressure torsion. Journal of Science: Advanced Materials and Devices, 2021, 6, 33-41.	3.1	4
7	Sampling the Cuâ€“Feâ€“Co phase diagram by severe plastic deformation for enhanced soft magnetic properties. Journal of Materials Research and Technology, 2021, 12, 1235-1242.	5.8	7
8	Nanocrystalline FeCr alloys synthesised by severe plastic deformation â€“ A potential material for exchange bias and enhanced magnetostriction. Journal of Magnetism and Magnetic Materials, 2021, 534, 168017.	2.3	5
9	In situ AC-hysteresis measurements of SPD-processed Cu20(Fe15Co85)80. AIP Advances, 2021, 11, 015033.	1.3	2
10	Effect of Carbon in Severe Plastically Deformed Metals. Advanced Engineering Materials, 2020, 22, 2000879.	3.5	8
11	Intermixing of Fe and Cu on the atomic scale by high-pressure torsion as revealed by DC- and AC-SQUID susceptometry and atom probe tomography. Acta Materialia, 2020, 196, 210-219.	7.9	11
12	Strain Induced Anisotropic Magnetic Behaviour and Exchange Coupling Effect in Fe-SmCo5 Permanent Magnets Generated by High Pressure Torsion. Crystals, 2020, 10, 1026.	2.2	13
13	Microstructural Changes Influencing the Magnetoresistive Behavior of Bulk Nanocrystalline Materials. Applied Sciences (Switzerland), 2020, 10, 5094.	2.5	9
14	Severe Plastic Deformation and Thermomechanical Processing: Nanostructuring and Properties. Metals, 2020, 10, 1306.	2.3	8
15	Synthesis of nanodiamond reinforced silver matrix nanocomposites: Microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 782, 139254.	5.6	11
16	Thermal stabilization of metal matrix nanocomposites by nanocarbon reinforcements. Scripta Materialia, 2020, 186, 202-207.	5.2	7
17	Microstructural evolution during heating of CNT/Metal Matrix Composites processed by Severe Plastic Deformation. Scientific Reports, 2020, 10, 857.	3.3	15
18	Magnetic dilution by severe plastic deformation. AIP Advances, 2020, 10, 015210.	1.3	6

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19	Influence of Processing Parameters on the Mechanical Properties of HPTâ€Deformed Nickel/Carbon Nanotube Composites. Advanced Engineering Materials, 2019, 21, 1800422.	3.5	8
20	Mechanical Precision Preparation of Atom Probe Tips. Microscopy and Microanalysis, 2019, 25, 320-321.	0.4	2
21	Friction and Tribo-Chemical Behavior of SPD-Processed CNT-Reinforced Composites. Lubricants, 2019, 7, 75.	2.9	5
22	High-Pressure Torsion Deformation Induced Phase Transformations and Formations: New Material Combinations and Advanced Properties. Materials Transactions, 2019, 60, 1256-1269.	1.2	62
23	Benefits of pattern formation by severe plastic deformation. Applied Materials Today, 2019, 15, 236-241.	4.3	36
24	Tuneable Magneto-Resistance by Severe Plastic Deformation. Metals, 2019, 9, 1188.	2.3	8
25	Oxygen-mediated deformation and grain refinement in Cu-Fe nanocrystalline alloys. Acta Materialia, 2019, 166, 281-293.	7.9	37
26	Ultrahigh-strength low carbon steel obtained from the martensitic state via high pressure torsion. Acta Materialia, 2019, 166, 168-177.	7.9	30
27	Magnetic Binary Supersaturated Solid Solutions Processed by Severe Plastic Deformation. Nanomaterials, 2019, 9, 6.	4.1	16
28	High strength nanocrystalline Cuâ€“Co alloys with high tensile ductility. Journal of Materials Research, 2019, 34, 58-68.	2.6	10
29	Nanostructured Low Carbon Steels Obtained from the Martensitic State via Severe Plastic Deformation, Precipitation, Recovery, and Recrystallization. Advanced Engineering Materials, 2019, 21, 1800202.	3.5	8
30	On the reinforcement homogenization in CNT/metal matrix composites during severe plastic deformation. Materials Characterization, 2018, 136, 375-381.	4.4	24
31	Mechanical properties of electrodeposited amorphous/crystalline multilayer structures in the Fe-P system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 715, 83-91.	5.6	8
32	Impact of interfaces on the radiation response and underlying defect recovery mechanisms in nanostructured Cu-Fe-Ag. Materials and Design, 2018, 160, 1148-1157.	7.0	19
33	Electrodeposition of Fe-C Alloys from Citrate Baths: Structure, Mechanical Properties, and Thermal Stability. Metals, 2018, 8, 363.	2.3	15
34	Effect of processing temperature on the microstructural characteristics of Cu-Ag nanocomposites: From supersaturation to complete phase decomposition. Acta Materialia, 2018, 154, 33-44.	7.9	19
35	Deformationâ€Induced Supersaturation in Immiscible Material Systems during Highâ€Pressure Torsion. Advanced Engineering Materials, 2017, 19, 1600675.	3.5	96
36	Study of the structural defects on carbon nanotubes in metal matrix composites processed by severe plastic deformation. Carbon, 2017, 125, 156-161.	10.3	22

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37	Evolution of the microstructure in carbon nanotube reinforced Nickel matrix composites processed by high-pressure torsion. IOP Conference Series: Materials Science and Engineering, 2017, 258, 012008.	0.6	3
38	Temperature dependent structural evolution in nickel/carbon nanotube composites processed by high-pressure torsion. IOP Conference Series: Materials Science and Engineering, 2017, 194, 012019.	0.6	4
39	Tailoring the magnetic properties of nanocrystalline Cu-Co alloys prepared by high-pressure torsion and isothermal annealing. Journal of Alloys and Compounds, 2017, 725, 744-749.	5.5	19
40	Strong and Stable Nanocomposites Prepared by High-Pressure Torsion of Cu-Coated Fe Powders. Metals, 2016, 6, 228.	2.3	1
41	On the process of co-deformation and phase dissolution in a hard-soft immiscible Cu Co alloy system during high-pressure torsion deformation. Acta Materialia, 2016, 115, 333-346.	7.9	47
42	Structural evolution and strain induced mixing in Cuâ€“Co composites studied by transmission electron microscopy and atom probe tomography. Materials Characterization, 2015, 100, 178-191.	4.4	29
43	Phase separation of a supersaturated nanocrystalline Cuâ€“Co alloy and its influence on thermal stability. Acta Materialia, 2015, 96, 269-283.	7.9	56
44	Phase decomposition and nano structure evolution of metastable nanocrystalline Cu-Co solid solutions during thermal treatment. IOP Conference Series: Materials Science and Engineering, 2015, 89, 012017.	0.6	5
45	On the remarkable thermal stability of nanocrystalline cobalt via alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 624, 41-51.	5.6	16
46	Microstructural evolution in immiscible alloys processed by High-Pressure Torsion. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012023.	0.6	2
47	New insights on the formation of supersaturated solid solutions in the Cuâ€“Cr system deformed by high-pressure torsion. Acta Materialia, 2014, 69, 301-313.	7.9	73
48	Supersaturation in Agâ€“Ni alloy by two-step high-pressure torsion processing. Philosophical Magazine Letters, 2014, 94, 9-17.	1.2	16
49	Generation of metallic nanocomposites by severe plastic deformation. International Materials Reviews, 2013, 58, 41-62.	19.3	108
50	Development of a New Testing Procedure for Performing Tensile Tests on Specimens with Sub-Millimetre Dimensions. Journal of Testing and Evaluation, 2013, 41, 635-646.	0.7	20
51	Frequency Dependence of the Coercivity of Soft Magnetic Materials. IEEE Transactions on Magnetics, 2012, 48, 1473-1476.	2.1	17
52	The formation of supersaturated solid solutions in Feâ€“Cu alloys deformed by high-pressure torsion. Acta Materialia, 2012, 60, 860-871.	7.9	144
53	Effect of oxide particles on the stabilization and final microstructure in aluminium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7589-7595.	5.6	37
54	Rate Independent and Rate Dependent Structural Evolution during Severe Plastic Deformation. Materials Transactions, 2010, 51, 8-13.	1.2	35

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55	Microstructure and Properties of a Fe-Cu Composite Processed by HPT Powder Consolidation. Materials Science Forum, 2010, 667-669, 229-234.	0.3	2
56	Saturation of Fragmentation During Severe Plastic Deformation. Annual Review of Materials Research, 2010, 40, 319-343.	9.3	460
57	Technical parameters affecting grain refinement by high pressure torsion. International Journal of Materials Research, 2009, 100, 1653-1661.	0.3	159
58	New procedure to generate stable nanocrystallites by severe plastic deformation. Scripta Materialia, 2009, 61, 1016-1019.	5.2	74
59	Processing of Nanostructured Bulk Fe-Cr Alloys by Severe Plastic Deformation. Materials Science Forum, 0, 1016, 1603-1610.	0.3	2