Florence Lecouturier

List of Publications by Year
in descending order

44	1,126	430754 18	395590 33
papers	citations	h-index	g-index

46	46	46	959
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metallic composites processed via extreme deformation: Toward the limits of strength in bulk materials. MRS Bulletin, 2010, 35, 982-991.	1.7	180
2	A new criterion for elasto-plastic transition in nanomaterials: Application to size and composite effects on Cuâ€“Nb nanocomposite wires. Acta Materialia, 2009, 57, 3157-3169.	3.8	96
3	Microstructural characterization of high strength and high conductivity nanocomposite wires. Scripta Materialia, 1996, 34, 1067-1073.	2.6	85
4	High strength â€“ High conductivity double-walled carbon nanotube â€“ Copper composite wires. Carbon, 2016, 96, 212-215.	5.4	65
5	Mechanical properties of thick 304L stainless steel deposits processed by He cold spray. Surface and Coatings Technology, 2015, 277, 74-80.	2.2	63
6	Established and Emerging Materials for use as High-Field Magnet Conductors. Advanced Engineering Materials, 2004, 6, 290-297.	1.6	59
7	Plasticity of multiscale nanofilamentary Cuâ•Nb composite wires during in situ neutron diffraction: Codeformation and size effect. Applied Physics Letters, 2006, 88, 191906.	1.5	53
8	Effects of size and geometry on the plasticity of high-strength copper/tantalum nanofilamentary conductors obtained by severe plastic deformation. Acta Materialia, 2006, 54, 1063-1075.	3.8	36
9	Multiscale modeling of the anisotropic electrical conductivity of architectured and nanostructured Cu-Nb composite wires and experimental comparison. Acta Materialia, 2017, 141, 131-141.	3.8	29
10	Evidence of internal Bauschinger test in nanocomposite wires duringin situmacroscopic tensile cycling under synchrotron beam. Applied Physics Letters, 2007, 90, 241907.	1.5	28
11	Thermal stability of nanocomposite metals: In situ observation of anomalous residual stress relaxation during annealing under synchrotron radiation. Acta Materialia, 2010, 58, 6504-6512.	3.8	28
12	Design and Tests of the 100-T Triple Coil at LNCMI. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	28
13	Dog-bone copper specimens prepared by one-step spark plasma sintering. Journal of Materials Science, 2015, 50, 7364-7373.	1.7	27
14	Multiscale modeling of the elastic behavior of architectured and nanostructured Cuâ€“Nb composite wires. International Journal of Solids and Structures, 2017, 121, 148-162.	1.3	25
15	FIM and 3D atom probe analysis of Cu/Nb nanocomposite wires. Scripta Materialia, 1999, 11, 1031-1039.	0.5	22
16	Pulsed magnetic fields in Toulouse â€“ past, present and future. Physica B: Condensed Matter, 2001, 294-295, 579-584.	1.3	21
17	Special Coils Development at the National High Magnetic Field Laboratory in Toulouse. Journal of Low Temperature Physics, 2013, 170, 442-446.	0.6	21
18	Multiscale modeling of the elasto-plastic behavior of architectured and nanostructured Cu-Nb composite wires and comparison with neutron diffraction experiments. International Journal of Plasticity, 2019, 122, 1-30.	4.1	21

#	Article	IF	Citations
19	High strengthâ€“high conductivity nanostructured copper wires prepared by spark plasma sintering and room-temperature severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 209-213.	2.6	19
20	High strength-high conductivity carbon nanotube-copper wires with bimodal grain size distribution by spark plasma sintering and wire-drawing. Scripta Materialia, 2017, 137, 78-82.	2.6	18
21	Ultra high strength nanocomposite conductors for pulsed magnet windings. IEEE Transactions on Applied Superconductivity, 2000, 10, 1269-1272.	1.1	17
22	Ultra high strength nanofilamentary conductors: the way to reach extreme properties. Physica B: Condensed Matter, 2001, 294-295, 648-652.	1.3	17
23	Cu/Nb Nanocomposite Wires Processed by Severe Plastic Deformation for Applications in High Pulsed Magnets: Effects of the Multi-Scale Microstructure on the Mechanical Properties. IEEE Transactions on Applied Superconductivity, 2012, 22, 6900104-6900104.	1.1	16
24	Cuâ€“Nb Nanocomposite Wires Processed by Severe Plastic Deformation: Effects of the Multiâ€Scale Microstructure and Internal Stresses on Elasticâ€Plastic Properties. Advanced Engineering Materials, 2012, 14, 998-1003.	1.6	16
25	Mechanical properties of Cold Spray deposited NARloy-Z copper alloy. Surface and Coatings Technology, 2013, 232, 652-657.	2.2	16
26	Nanostructured 1% silver-copper composite wires with a high tensile strength and a high electrical conductivity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 761, 138048.	2.6	15
27	Comparison of the Properties of Cold-Sprayed Cu-0.5Cr-0.05Zr Alloys after Various Heat Treatments Versus Forged and Vacuum Plasma-Sprayed Alloys. Journal of Thermal Spray Technology, 2014, 23, 486-491.	1.6	14
28	Perspectives for Cu/SS macrocomposite and Cu/X nanofilamentary conductors used in non-destructive high-field pulsed magnets under cryogenic conditions. Physica B: Condensed Matter, 2004, 346-347, 582-588.	1.3	13
29	Copper/Stainless Steel Polyhelix Magnets. IEEE Transactions on Applied Superconductivity, 2012, 22, 4300404-4300404.	1.1	10
30	New Developments at the National Pulsed Field Laboratory in Toulouse. IEEE Transactions on Applied Superconductivity, 2008, 18, 592-595.	1.1	9
31	Identification of Aging Mechanisms for Non-Destructive Pulsed Magnets Operating in the 60 T Range. IEEE Transactions on Applied Superconductivity, 2004, 14, 1237-1240.	1.1	8
32	Axial and radial interface instabilities of copper/tantalum cylindrical conductors. Acta Materialia, 1999, 47, 2761-2768.	3.8	7
33	ModÃ©lisation multi-Ã©chelle du comportement Ã©lectrique de nano-composites Cu-Nb. Materiaux Et Techniques, 2015, 103, 309.	0.3	7
34	Influence of alloying on the tensile strength and electrical resistivity of silver nanowire: copper composites macroscopic wires. Journal of Materials Science, 2021, 56, 4884-4895.	1.7	5
35	High-strength materials: in-situ investigations of dislocation behaviour in Cu-Nb multifilamentary nanostructured composites. , 0, .		5
36	Small scale mechanical properties of polycrystalline materials: in situ diffraction studies. International Journal of Nanotechnology, 2008, 5, 609.	0.1	4

#	Article	IF	Citations
37	Microstructure and texture of copper/niobium composites processed by ECAE. International Journal of Material Forming, 2012, 5, 121-127.	0.9	4
38	Experimental analysis of mechanical and electrical aging in pulsed magnets. Physica B: Condensed Matter, 2004, 346-347, 589-593.	1.3	3
39	Elaboration by Severe Plastic Deformation, Microstructural and Mechanical Study of Cu/X (X =Ta or) Tj ETQq1 1 0.784314 rgBT /Overlo 639-644.	0.3	3
40	Microstructure and texture of copper/niobium composites processed by ECAE. International Journal of Material Forming, 2010, 3, 1071-1074.	0.9	3
41	Low Temperature Physics at the Laboratoire National des Champs MagnÃ©tiques PulsÃ©s in Toulouse. Journal of Low Temperature Physics, 2003, 133, 97-120.	0.6	1
42	Size Effect in the Plasticity of Multiscale Nanofilamentary Cu/Nb Composite Wires During in-situ Tensile Tests Under Neutron Beam. Materials Research Society Symposia Proceedings, 2006, 977, 1.	0.1	1
43	Plasticity Mechanisms in Multi-Scale Copper-Based Nanocomposite Wires. Materials Science Forum, 2007, 539-543, 814-819.	0.3	1
44	High Strength-High Conductivity Silver Nanowire-Copper Composite Wires by Spark Plasma Sintering and Wire-Drawing for Non-Destructive Pulsed Fields. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-4.	1.1	1