John S Carpenter

List of Publications by Year
in descending order

25 papers	1,241 citations	758635 12 h-index	713013 21 g-index
29 all docs	29 docs citations	29 times ranked	1092 citing authors

#	Article	IF	Citations
1	Design of Radiation Tolerant Materials Via Interface Engineering. Advanced Materials, 2013, 25, 6975-6979.	11.1	307
2	High-strength and thermally stable bulk nanolayered composites due to twin-induced interfaces. Nature Communications, 2013, 4, 1696.	5.8	298
3	Interface-driven microstructure development and ultra high strength of bulk nanostructured Cu-Nb multilayers fabricated by severe plastic deformation. Journal of Materials Research, 2013, 28, 1799-1812.	1.2	142
4	Deformation behavior of the cobalt-based superalloy Haynes 25: Experimental characterization and crystal plasticity modeling. Acta Materialia, 2014, 63, 162-168.	3.8	86
5	Processing Parameter Influence on Texture and Microstructural Evolution in Cu-Nb Multilayer Composites Fabricated via Accumulative Roll Bonding. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2192-2208.	1.1	67
6	Engineering Interface Structures and Thermal Stabilities via SPD Processing in Bulk Nanostructured Metals. Scientific Reports, 2014, 4, 4226.	1.6	65
7	The critical role of grain orientation and applied stress in nanoscale twinning. Nature Communications, 2014, 5, 3806.	5.8	62
8	Achieving maximum hardness in semi-coherent multilayer thin films with unequal layer thickness. Acta Materialia, 2012, 60, 2625-2636.	3.8	53
9	An interface facet driven Rayleigh instability in high-aspect-ratio bimetallic nanolayered composites. Applied Physics Letters, 2014, 105, .	1.5	25
10	Brief Introduction to Neutron Scattering and Global Neutron User Facilities. Jom, 2012, 64, 104-111.	0.9	19
11	Maintaining nano-lamellar microstructure in friction stir welding (FSW) of accumulative roll bonded (ARB) Cu-Nb nano-lamellar composites (NLC). Journal of Materials Science and Technology, 2018, 34, 92-101.	5.6	16
12	An indentation-based method to determine constituent strengths within nanolayered composites. Acta Materialia, 2015, 92, 255-264.	3.8	14
13	Interfaceâ€Driven Plasticity: The Presence of an Interface Affected Zone in Metallic Lamellar Composites. Advanced Engineering Materials, 2015, 17, 109-114.	1.6	13
14	Evolution of microstructures and properties leading to layer instabilities during accumulative roll bonding of Fe Cu, Fe Ag, and Fe Al. Materials and Design, 2021, 212, 110204.	3.3	12
15	Shear strain gradient in Cu/Nb nanolaminates: Strain accommodation and chemical mixing. Acta Materialia, 2022, 234, 117986.	3.8	12
16	X-Ray Diffraction Studies of Forward and Reverse Plastic Flow in Nanoscale Layers During Thermal Cycling. Materials Research Letters, 2013, 1, 233-243.	4.1	11
17	Processing of Dilute Mgâ€“Znâ€“Mnâ€“Ca Alloy/Nb Multilayers by Accumulative Roll Bonding. Advanced Engineering Materials, 2020, 22, 1900673.	1.6	11
18	Recrystallization and Grain Growth in Accumulative Roll-Bonded Metal Composites. Jom, 2015, 67, 2810-2819.	0.9	9

#	Article	IF	Citations
19	The Impact of Rolling at Temperature on Conductivity and Texture in Nanolamellar Cu/Nb Bimetallic Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 2208-2213.	1.1	7
20	Mechanical Properties of Nanostructured Metals. , 2014, , 495-553.		6
21	Layer Stability and Material Properties of Friction-Stir Welded Cuâ€“Nb Nanolamellar Composite Plates. Materials Research Letters, 2014, 2, 227-232.	4.1	2
22	The Influence of Rolling Schedule on the Dynamic Properties of Accumulatively Roll Bonded Nano-Layered Cu-Nb. Key Engineering Materials, 2014, 622-623, 1031-1040.	0.4	2
23	Perspective on Neutron Diffraction as a Tool for Characterizing Minerals, Metals, and Materials. Jom, 2012, 64, 102-103.	0.9	0
24	Perspective on the Use of Coherent Diffraction Imaging as a Tool for High Resolution Materials Characterization. Jom, 2013, 65, 1181-1182.	0.9	0
25	Probing Material Morphology and Deformation as a Response to in situ Loading using X-ray Tomography. Microscopy and Microanalysis, 2019, 25, 374-375.	0.2	0