Alexander P Zhilyaev

List of Publications by Year
in descending order

43	4,012	361413	315739
papers	citations	20 h-index	38 g-index

50	50	50	2681
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Using high-pressure torsion for metal processing: Fundamentals and applications. Progress in Materials Science, 2008, 53, 893-979.	32.8	2,579
2	Cellular and molecular interactions between MC3T3-E1 pre-osteoblasts and nanostructured titanium produced by high-pressure torsion. Biomaterials, 2007, 28, 3887-3895.	11.4	178
3	Bulk Nanostructured Metals for Innovative Applications. Jom, 2012, 64, 1134-1142.	1.9	106
4	Wear resistance and electroconductivity in copper processed by severe plastic deformation. Wear, 2013, 305, 89-99.	3.1	100
5	Superplastic behaviour of AZ91 magnesium alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 637, 1-11.	5.6	68
6	Using high-pressure torsion to process an aluminumâ€“magnesium nanocomposite through diffusion bonding. Journal of Materials Research, 2016, 31, 88-99.	2.6	68
7	Rapid synthesis of an extra hard metal matrix nanocomposite at ambient temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 635, 109-117.	5.6	59
8	Significance of grain refinement on micro-mechanical properties and structures of additively-manufactured CoCrFeNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 807, 140898.	5.6	59
9	Characteristics of the Transition from Grain-Boundary Sliding to Solute Drag Creep in Superplastic AA5083. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 50-64.	2.2	51
10	A critical examination of pure tantalum processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 174-182.	5.6	46
11	A microtexture investigation of recrystallization during friction stir processing of as-cast NiAl bronze. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 2239-2251.	2.2	44
12	Peak Stir Zone Temperatures during Friction Stir Processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 631-640.	2.2	42
13	Mechanical behavior and microstructure properties of titanium powder consolidated by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 498-504.	5.6	42
14	Recent Development of Superplasticity in Aluminum Alloys: A Review. Metals, 2020, 10, 77.	2.3	42
15	Evolution of microstructure in AZ91 alloy processed by high-pressure torsion. Journal of Materials Science, 2016, 51, 3380-3389.	3.7	37
16	Cold Consolidation of Metalâ€“Ceramic Nanocomposite Powders with Large Ceramic Fractions. Advanced Functional Materials, 2008, 18, 3293-3298.	14.9	31
17	Electron backscatter diffraction (EBSD) microstructure evolution in HPT copper annealed at a low temperature. Journal of Materials Research and Technology, 2014, 3, 338-343.	5.8	28
18	Evolution of hardness in ultrafine-grained metals processed by high-pressure torsion. Journal of Materials Research and Technology, 2014, 3, 311-318.	5.8	28

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19	Effect of grain size on compressive behaviour of titanium at different strain rates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 645, 311-317.	5.6	22
20	Recent developments in modelling of microhardness saturation during SPD processing of metals and alloys. Journal of Materials Science, 2013, 48, 4461-4466.	3.7	21
21	Microstructure and texture evolution in ultrafine-grained pure Ti processed by equal-channel angular pressing with subsequent dynamic compression. Scripta Materialia, 2014, 77, 33-36.	5.2	19
22	Effect of temperature on microstructural stabilization and mechanical properties in the dynamic testing of nanocrystalline pure Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 634, 64-70.	5.6	17
23	Effect of annealing on wear resistance and electroconductivity of copper processed by high-pressure torsion. Journal of Materials Science, 2014, 49, 2270-2278.	3.7	16
24	Hardening of Additive Manufactured 316L Stainless Steel by Using Bimodal Powder Containing Nanoscale Fraction. Materials, 2021, 14, 115.	2.9	15
25	Dynamic compressive behavior of ultrafine-grained pure Ti at elevated temperatures after processing by ECAP. Journal of Materials Science, 2014, 49, 6640-6647.	3.7	14
26	Phase Transformations During Highâ€Pressure Torsion of Pure Zr and of a Zrâ€2.5%Nb Alloy. Advanced Engineering Materials, 2010, 12, 754-757.	3.5	13
27	Long-term self-annealing of copper and aluminium processed by high-pressure torsion. Journal of Materials Science, 2014, 49, 6529-6535.	3.7	12
28	Temperature and strain rate dependence of microstructural evolution and dynamic mechanical behavior in nanocrystalline Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 641, 29-36.	5.6	12
29	Microstructure and microtexture evolution in pure metals after ultra-high straining. Journal of Materials Science, 2012, 47, 7888-7893.	3.7	11
30	Reassessment of temperature increase and equivalent strain calculation during high-pressure torsion. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012052.	0.6	8
31	Microstructural Evolution and Mechanical Properties of Ultrafineâ€Grained Ti Fabricated by Cryorolling and Subsequent Annealing. Advanced Engineering Materials, 2020, 22, 1901463.	3.5	8
32	In Situ Heating Neutron and Xâ€Ray Diffraction Analyses for Revealing Structural Evolution during Postprinting Treatments of Additiveâ€Manufactured 316L Stainless Steel. Advanced Engineering Materials, 2022, 24, .	3.5	8
33	The Effect of Pre-Annealing on the Evolution of the Microstructure and Mechanical Behavior of Aluminum Processed by a Novel SPD Method. Materials, 2020, 13, 2361.	2.9	6
34	Microhardness and EBSD microstructure mapping in partially-pressed al and cu through 90Âº ECAP die. Materials Research, 2013, 16, 586-591.	1.3	4
35	Novel Method of Severe Plastic Deformation - Continuous Closed Die Forging: CP Aluminum Case Study. Defect and Diffusion Forum, 2018, 385, 302-307.	0.4	4
36	Influence of Inhomogeneity on Mechanical Properties of Commercially Pure Titanium Processed by HPT. Defect and Diffusion Forum, 0, 385, 284-289.	0.4	3

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37	Atomistic Modeling of Grain Boundary Migration in Nickel. Advanced Engineering Materials, 2020, 22, 2000115.	3.5	3
38	Enhancement of pitting corrosion resistance for AA1050 processed by continuous closed die forging. Journal of Materials Research and Technology, 2020, 9, 13185-13195.	5.8	3
39	Energy Stored during High Pressure Torsion of Pure Metals. Letters on Materials, 2019, 9, 142-146.	0.7	3
40	Metallic Composites, Prepared by Deformation Processing. Materials Science Forum, 0, 1016, 1759-1764.	0.3	2
41	Gradient of strength and microstructure after deformation by free torsion of metal bar. Letters on Materials, 2019, 9, 571-576.	0.7	1
42	Ultrafine Grain Evolution in a Cu-Cr-Zr Alloy during Warm Multidirectional Forging. Materials Science Forum, 0, 783-786, 2683-2688.	0.3	0
43	Enhanced Plasticity of Pure Nickel Processed by HPT Consolidation of Rapid Quenched Ribbons. Materials Science Forum, 0, 838-839, 122-126.	0.3	0