

Mahmoud S Soliman

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,352
citations

394286

19
h-index

360920

35
g-index

61
all docs

61
docs citations

61
times ranked

1088
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of mechanical properties and grain size refinement of commercial purity aluminum 1050 processed by ECAP. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 458, 226-234.	2.6	179
2	Sustainability assessment associated with surface roughness and power consumption characteristics in nanofluid MQL-assisted turning of AISI 1045 steel. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 105, 1311-1327.	1.5	117
3	Friction stir processing: An effective technique to refine grain structure and enhance ductility. <i>Materials & Design</i> , 2010, 31, 1231-1236.	5.1	100
4	Sustainable and Smart Manufacturing: An Integrated Approach. <i>Sustainability</i> , 2020, 12, 2280.	1.6	97
5	Creep transitions in an Al-Zn alloy. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1984, 15, 1893-1904.	1.4	76
6	ANN Surface Roughness Optimization of AZ61 Magnesium Alloy Finish Turning: Minimum Machining Times at Prime Machining Costs. <i>Materials</i> , 2018, 11, 808.	1.3	55
7	Artificial Intelligence Monitoring of Hardening Methods and Cutting Conditions and Their Effects on Surface Roughness, Performance, and Finish Turning Costs of Solid-State Recycled Aluminum Alloy 6061. <i>Metals</i> , 2018, 8, 394.	1.0	45
8	Correlation between creep behavior and substructure in an Al-3at.%Mg solid solution alloy. <i>Materials Science and Engineering</i> , 1982, 55, 111-119.	0.1	43
9	An investigation of the stress exponent and subgrain size in Al after stress reduction. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1983, 48, 63-81.	0.7	38
10	Mechanical properties and fracture of Al-15 vol.%B ₄ C based metal matrix composites. <i>International Journal of Cast Metals Research</i> , 2014, 27, 7-14.	0.5	37
11	Effect of Feed Rate in FSW on the Mechanical and Microstructural Properties of AA5754 Joints. <i>Advances in Materials Science and Engineering</i> , 2019, 2019, 1-12.	1.0	36
12	Effect of Equal-Channel Angular Pressing Process on Properties of 1050 Al Alloy. <i>Materials and Manufacturing Processes</i> , 2012, 27, 746-750.	2.7	35
13	Hot deformation of AA6082-T4 aluminum alloy. <i>Journal of Materials Science</i> , 2008, 43, 6324-6330.	1.7	33
14	Alloying Elements Effects on Electrical Conductivity and Mechanical Properties of Newly Fabricated Al Based Alloys Produced by Conventional Casting Process. <i>Materials</i> , 2021, 14, 3971.	1.3	26
15	Role of stacking fault energy on the deformation characteristics of copper alloys processed by plane strain compression. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7579-7588.	2.6	22
16	Effect of Cu concentration on the high-temperature creep behavior of Al-Cu solid solution alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 201, 111-117.	2.6	21
17	Enhancement of static and fatigue strength of 1050 Al processed by equal-channel angular pressing using two routes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 532, 120-129.	2.6	21
18	Effect of tensile strain rate on high-temperature deformation and fracture of rolled Al-15 vol% B ₄ C composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 749, 129-136.	2.6	21

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19	On the creep behavior of uranium dioxide. <i>Materials Science and Engineering</i> , 1982, 53, 185-190.	0.1	20
20	EBSD investigation of the microstructure and microtexture evolution of 1050 aluminum cross deformed from ECAP to plane strain compression. <i>Journal of Materials Science</i> , 2011, 46, 3291-3308.	1.7	19
21	Creep characteristics and microstructure in nano-particle strengthened AA6082. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 531, 35-44.	2.6	19
22	Metallurgical parameters controlling matrix/B ₄ C particulate interaction in aluminium boron carbide metal matrix composites. <i>International Journal of Cast Metals Research</i> , 2013, 26, 364-373.	0.5	19
23	Effect of stress reduction ratio on the creep behaviour of Al. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1985, 51, 559-574.	0.7	16
24	Breakdown of the power-law creep in a Class I Al-10 at % Zn alloy. <i>Journal of Materials Science</i> , 1987, 22, 3529-3532.	1.7	16
25	High-Temperature Deformation and Ductility of a Modified 5083 Al Alloy. <i>Journal of Materials Engineering and Performance</i> , 2008, 17, 572-579.	1.2	16
26	Superplastic Characteristics of Fine-Grained 7475 Aluminum Alloy. <i>Journal of Materials Engineering and Performance</i> , 2006, 15, 76-80.	1.2	15
27	Effect of Solution Heat Treatment on the Hot Workability of Al-Mg-Si Alloy. <i>Materials and Manufacturing Processes</i> , 2009, 24, 637-643.	2.7	15
28	An adaptive design for cost, quality and productivity-oriented sustainable machining of stainless steel 316. <i>Journal of Materials Research and Technology</i> , 2020, 9, 14568-14581.	2.6	15
29	Effect of deformation path change on plastic response and texture evolution for 1050 Al pre-deformed by ECAP and subsequently plane strain compressed. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 2547-2558.	2.6	13
30	Developed Models for Understanding and Predicting the Machinability of a Hardened Martensitic Stainless Steel. <i>Materials and Manufacturing Processes</i> , 2010, 25, 758-768.	2.7	12
31	Effect of creep substructure on the stress exponent of Al following stress reductions. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1984, 50, 9-24.	0.7	11
32	Effect of combining plane-strain compression with equal channel angular pressing on mechanical properties and texture development in an Al alloy. <i>Journal of Materials Science</i> , 2009, 44, 5654-5661.	1.7	10
33	Low temperature enhanced ductility of friction stir processed 5083 aluminum alloy. <i>Bulletin of Materials Science</i> , 2011, 34, 1447-1453.	0.8	10
34	Austenite Grain Growth Kinetics in API X65 and X70 Line-Pipe Steels during Isothermal Heating. <i>Advances in Materials Science and Engineering</i> , 2014, 2014, 1-8.	1.0	10
35	Appropriate diffusion coefficients for dislocation creep in solid-solution alloys. <i>Journal of Materials Science Letters</i> , 1988, 7, 1027-1030.	0.5	9
36	Effect of strain rate and grain size on the ductility of superplastic Pb-62% Sn eutectic at room temperature. <i>Scripta Metallurgica Et Materialia</i> , 1995, 33, 919-924.	1.0	9

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37	High-temperature deformation and enhanced ductility of friction stir processed-7010 Aluminum Alloy. <i>Materials & Design</i> , 2011, 32, 1916-1922.	5.1	9
38	Effect of equal-channel angular pressing on superplastic behavior of eutectic Pb-Sn alloy. <i>Materials & Design</i> , 2012, 34, 235-241.	5.1	9
39	Superplastic characteristics of the Pb-62% Sn eutectic alloy at room temperature. <i>Scripta Metallurgica Et Materialia</i> , 1994, 31, 439-444.	1.0	8
40	Correlation of Grain Size, Stacking Fault Energy, and Texture in Cu-Al Alloys Deformed under Simulated Rolling Conditions. <i>Advances in Materials Science and Engineering</i> , 2015, 2015, 1-12.	1.0	8
41	Taguchi Robust Design for Optimizing Surface Roughness of Turned AISI 1045 Steel Considering the Tool Nose Radius and Coolant as Noise Factors. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-9.	1.0	8
42	Effects of Mg Content on the Microstructural and Mechanical Properties of Al-4Cu-xMg-0.3Ag Alloys. <i>Crystals</i> , 2020, 10, 895.	1.0	6
43	Comparison of Mechanical and Microstructural Properties of as-Cast Al-Cu-Mg-Ag Alloys: Room Temperature vs. High Temperature. <i>Crystals</i> , 2021, 11, 1330.	1.0	6
44	Nanocrystalline 6061 Al Powder Fabricated by Cryogenic Milling and Consolidated via High Frequency Induction Heat Sintering. <i>Advances in Materials Science and Engineering</i> , 2014, 2014, 1-9.	1.0	5
45	Statistical Model for the Mechanical Properties of Al-Cu-Mg-Ag Alloys at High Temperatures. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-13.	1.0	5
46	Evaluation of Strength and Microstructural Properties of Heat Treated High-Molybdenum Content Maraging Steel. <i>Crystals</i> , 2021, 11, 1446.	1.0	5
47	Effect of Heat Treatment on Tensile Properties and Microstructure of Co-Free, Low Ni-10 Mo-1.2 Ti Maraging Steel. <i>Materials</i> , 2022, 15, 2136.	1.3	5
48	Mechanical Characterization of Cryomilled Al Powder Consolidated by High-Frequency Induction Heat Sintering. <i>Advances in Materials Science and Engineering</i> , 2013, 2013, 1-10.	1.0	4
49	Creep curves of Al-Mg alloys at very low stresses. <i>Materials Science and Engineering</i> , 1985, 68, L23-L25.	0.1	3
50	An investigation of the creep behaviour of Pb-9Sn, Zn-40Al and Au-10Ni alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1989, 112, 21-24.	2.6	3
51	Effect of Heat Treatment Conditions on the High Temperature Deformation of 6082-Al Alloy. <i>Advanced Materials Research</i> , 0, 83-86, 407-414.	0.3	3
52	Effect of Molybdenum Content on the Corrosion and Microstructure of Low-Ni, Co-Free Maraging Steels. <i>Metals</i> , 2021, 11, 852.	1.0	3
53	Tribo-Behavior and Corrosion Properties of Welded 304L and 316L Stainless Steel. <i>Coatings</i> , 2021, 11, 1567.	1.2	3
54	Significance of solute concentration dependence of climb-controlled creep rates in dilute solid solution alloys. <i>Journal of Materials Science Letters</i> , 1995, 14, 1155-1157.	0.5	2

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55	Static and Cyclic Deformation of Commercially Pure Al Processed by Equal-Channel Angular Pressing Using Two Routes. <i>Materials Science Forum</i> , 2010, 667-669, 833-838.	0.3	1
56	Microstructural and Mechanical Characterization of Friction Stir Welded- 1050 Aluminium Alloy. <i>Advanced Materials Research</i> , 0, 83-86, 1173-1181.	0.3	0
57	Texture Manipulation in Commercial Purity Aluminum by Deformation Path Change from ECAP to Plane Strain Compression. <i>Materials Science Forum</i> , 2010, 667-669, 445-450.	0.3	0
58	The fracture strength of cryomilled 99.7 Al nanopowders consolidated by high frequency induction sintering. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014, 63, 012025.	0.3	0
59	Transition from Superplastic Behavior - Viscous Glide - Dislocation Climb - Power-Law Break down Regimes in Friction Stir Processed AA5083. <i>Materials Science Forum</i> , 2016, 863, 23-30.	0.3	0
60	Why Al-B4C Metal Matrix Composites? A Review. , 0, , .		0