Mohsen Ostad Shabani

List of Publications by Year
in descending order

101 papers	3,306 citations	156536 32 h-index	206121 51 g-index
102 all docs	102 docs citations	102 times ranked	1849 citing authors

#	Article	IF	Citations
1	Effect of temperature, time, and shear force on the morphology and size of dendrites in A356-Al₂O₃ composites. Journal of Composite Materials, 2022, 56, 329-338.	1.2	3
2	Application of the combined CFD and swarm intelligence for optimization of baffles number in a mixer-settler. Journal of the Indian Chemical Society, 2021, 98, 100241.	1.3	3
3	Investigating the effect of reinforcing particulates on the weight loss and worn surface of compocast AMCs. Metallic Materials, 2021, 51, 11-18.	0.2	3
4	The performance of TV-MOPSO in optimization of sintered steels. Metallic Materials, 2021, 51, 333-341.	0.2	5
5	Evaluation of Fracture Mechanisms in Al-Si Metal Matrix Nanocomposites Produced by Three Methods of Gravity Sand Casting, Squeeze Casting and Compo Casting in Semi-Solid State. Silicon, 2020, 12, 2977-2987.	1.8	30
6	The Enhancement of Wear Properties of Compo-Cast A356 Composites Reinforced with SiC nano Particulates. Protection of Metals and Physical Chemistry of Surfaces, 2019, 55, 748-752.	0.3	16
7	The Effect of Electromagnetic Stirrer on the Size and Morphology of Intermetallic Particles in Al-Si Metal Matrix Composite. Silicon, 2019, 11, 2539-2546.	1.8	16
8	Understanding the occurrence of the surface turbulence in a nonpressurized bottom gating system: Numerical simulation of the melt flow pattern. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2018, 232, 230-241.	0.7	7
9	Performance of ANFIS Coupled with PSO in Manufacturing Superior Wear Resistant Aluminum Matrix Nano Composites. Transactions of the Indian Institute of Metals, 2018, 71, 2095-2103.	0.7	29
10	Influence of solutionising temperature and time on spherodisation of the silicon particles of AMNCs. International Journal of Materials and Product Technology, 2018, 57, 336.	0.1	12
11	Squeeze casting of electromagnetically stirred aluminum matrix nanocomposites in semi-solid condition using hybrid algorithm optimized parameters. Metallic Materials, 2017, 55, 33-44.	0.2	22
12	Superior Tribological Properties of Particulate Aluminum Matrix Nano Composites. Protection of Metals and Physical Chemistry of Surfaces, 2016, 52, 244-248.	0.3	12
13	Wear properties of rheo-squeeze cast aluminum matrix reinforced with nano particulates. Protection of Metals and Physical Chemistry of Surfaces, 2016, 52, 486-491.	0.3	18
14	Optimization of the EMS process parameters in compocasting of high-wear-resistant Al-nano-TiC composites. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	47
15	Microstructural and sliding wear behavior of SiC-particle reinforced copper matrix composites fabricated by sintering and sinter-forging processes. Journal of Materials Research and Technology, 2016, 5, 5-12.	2.6	71
16	Application of the combined neuro-computing, fuzzy logic and swarm intelligence for optimization of compocast nanocomposites. Journal of Composite Materials, 2015, 49, 1653-1663.	1.2	58
17	Refined microstructure of compo cast nanocomposites: the performance of combined neuro-computing, fuzzy logic and particle swarm techniques. Neural Computing and Applications, 2015, 26, 899-909.	3.2	55
18	Application of Computational Fluid Dynamics to study the effects of Sprue Base Geometry on the Surface and Internal Turbulence in gravity casting. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2015, 229, 106-116.	0.7	4

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19	The performance of pressure assisted casting process to improve the mechanical properties of Al-Si-Mg alloys matrix reinforced with coated B4C particles. International Journal of Advanced Manufacturing Technology, 2015, 76, 263-270.	1.5	21
20	Automotive copper and magnesium containing cast aluminium alloys: Report on the correlation between Yttrium modified microstructure and mechanical properties. Russian Journal of Non-Ferrous Metals, 2014, 55, 436-442.	0.2	20
21	Extruded AA6061 alloy matrix composites: The performance of multi-strategies to extend the searching area of the optimization algorithm. Journal of Composite Materials, 2014, 48, 1927-1937.	1.2	13
22	The effect of primary and secondary processing on the abrasive wear properties of compocast aluminum 6061 alloy matrix composites. Protection of Metals and Physical Chemistry of Surfaces, 2014, 50, 817-824.	0.3	15
23	Effects of hydrogen level and cooling rate on ultimate tensile strength of Al A319 alloy. Russian Journal of Non-Ferrous Metals, 2014, 55, 365-370.	0.2	12
24	Strategic developments to improve the optimization performance with efficient optimum solution and produce high wear resistance aluminumâ€“copper alloy matrix composites. Neural Computing and Applications, 2014, 24, 1531-1538.	3.2	35
25	Searching for a novel optimization strategy in tensile and fatigue properties of alumina particulates reinforced aluminum matrix composite. Engineering With Computers, 2014, 30, 559-568.	3.5	13
26	Investigation on the Effect of Mold Constraints and Cooling Rate on Residual Stress During the Sand-Casting Process of 1086 Steel by Employing a Thermomechanical Model. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 1157-1169.	1.0	16
27	Numerical and experimental investigations of weld pool geometry in GTA welding of pure aluminum. Journal of Central South University, 2014, 21, 20-26.	1.2	18
28	Searching for the superior solution to the population-based optimization problem: Processing of the wear resistant commercial AA6061 AMCs. International Journal of Damage Mechanics, 2014, 23, 899-916.	2.4	20
29	Modification Mechanism and Microstructural Characteristics of Eutectic Si in Casting Al-Si Alloys: A Review on Experimental and Numerical Studies. Jom, 2014, 66, 726-738.	0.9	81
30	Experimental Investigation on the Aging Response, Hardness and Total Impact Energy Absorption of Sr-Modified Heat-Treatable Cast Automotive Aluminum Alloys. Transactions of the Indian Institute of Metals, 2014, 67, 753-759.	0.7	18
31	A mathematical model for prediction of microporosity in aluminum alloy A356. International Journal of Advanced Manufacturing Technology, 2013, 64, 1313-1321.	1.5	43
32	Ascending Order of Enhancement in Sliding Wear Behavior and Tensile Strength of the Compocast Aluminum Matrix Composites. Transactions of the Indian Institute of Metals, 2013, 66, 171-176.	0.7	12
33	A computational study on electrical characteristics of a novel band-to-band tunneling graphene nanoribbon FET. Superlattices and Microstructures, 2013, 60, 169-178.	1.4	20
34	Optimization of Al Matrix Reinforced with B4C Particles. Jom, 2013, 65, 272-277.	0.9	18
35	Efficient optimum solution for high strength Al alloys matrix composites. Ceramics International, 2013, 39, 7483-7490.	2.3	59
36	Computational modeling of cast aluminum 2024 alloy matrix composites: Adapting the classical algorithms for optimal results in finding multiple optima. Powder Technology, 2013, 249, 77-81.	2.1	16

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37	Concurrent fitness evaluations in searching for the optimal process conditions of Al matrix nanocomposites by linearly decreasing weight. Journal of Composite Materials, 2013, 47, 1765-1772.	1.2	24
38	Application of the Extrusion to Increase the Binding between the Ceramic Particles and the Metal Matrix: Enhancement of Mechanical and Tribological Properties. Journal of Materials Science and Technology, 2013, 29, 423-428.	5.6	18
39	Suppression of Segregation, Settling and Agglomeration in Mechanically Processed Composites Fabricated by a Semisolid Agitation Processes. Transactions of the Indian Institute of Metals, 2013, 66, 65-70.	0.7	19
40	Microstructural and abrasive wear properties of SiC reinforced aluminum-based composite produced by compocasting. Transactions of Nonferrous Metals Society of China, 2013, 23, 1905-1914.	1.7	94
41	Enhancing the tribological performance under biodiesel lubrication using CVD diamond coated parts. Wear, 2013, 302, 1370-1377.	1.5	15
42	Elaboration of an operative and efficacious optimization route to ameliorate the mechanical and tribological properties of implants. Powder Technology, 2013, 249, 530-535.	2.1	9
43	Fabrication of AMCs by spray forming: Setting of cognition and social parameters to accelerate the convergence in optimization of spray forming process. Ceramics International, 2013, 39, 5271-5279.	2.3	18
44	Optimized processing power and trainability of neural network in numerical modeling of Al Matrix nano composites. Journal of Manufacturing Processes, 2013, 15, 518-523.	2.8	21
45	Development of the principle of simulated natural evolution in searching for a more superior solution: Proper selection of processing parameters in AMCs. Powder Technology, 2013, 245, 146-155.	2.1	38
46	The synthesis of the particulates Al matrix composites by the compocasting method. Ceramics International, 2013, 39, 1351-1358.	2.3	31
47	Good bonding between coated B4C particles and aluminum matrix fabricated by semisolid techniques. Russian Journal of Non-Ferrous Metals, 2013, 54, 154-160.	0.2	13
48	Application of GA to optimize the process conditions of Al Matrix nano-composites. Composites Part B: Engineering, 2013, 45, 185-191.	5.9	54
49	Plasticity and microstructure of A356 matrix nano composites. Journal of King Saud University, Engineering Sciences, 2013, 25, 41-48.	1.2	28
50	Existence of Good Bonding between Coated B₄C Reinforcement and Al Matrix via Semisolid Techniques: Enhancement of Wear Resistance and Mechanical Properties. Tribology Transactions, 2013, 56, 342-348.	1.1	23
51	Numerical Investigation of the Effect of Sprue Base Design on the Flow Pattern of Aluminum Gravity Casting. Defect and Diffusion Forum, 2013, 344, 43-53.	0.4	9
52	Enhancement of abrasive wear resistance in consolidated Al matrix composites via extrusion process. Tribology - Materials, Surfaces and Interfaces, 2013, 7, 129-134.	0.6	12
53	Plastic deformation on worn surface of sintered diffusion alloyed Feâ€“Niâ€“Cu steel powders. Materials Technology, 2013, 28, 117-121.	1.5	6
54	APPLYING VARIOUS TRAINING ALGORITHMS IN DATA ANALYSIS OF NANO COMPOSITES. Acta Metallurgica Slovaca, 2013, 19, 94-104.	0.3	6

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55	Solâ€“gel coated B₄C particles reinforced 2024 Al matrix composites. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2012, 226, 159-169.	0.7	7
56	Silicon morphology modelling during solidification process of A356 Al alloy. International Journal of Cast Metals Research, 2012, 25, 53-58.	0.5	21
57	A Novel Computational Strategy to Enhance the Ability of Elaborate Search by Entire Swarm to Find the Best Solution in Optimization of AMCs. Defect and Diffusion Forum, 2012, 332, 27-33.	0.4	2
58	Characterization of Wear Mechanisms in Sintered Fe-1.5 Wt % Cu Alloys. Archives of Metallurgy and Materials, 2012, 57, .	0.6	8
59	Computational Fluid Dynamics (CFD) Simulation of Liquid-Liquid Mixing in Mixer Settler. Archives of Metallurgy and Materials, 2012, 57, 173-178.	0.6	9
60	Wear of Alâ€“Si alloys matrix reinforced with solâ€“gel coated particles. Materials Technology, 2012, 27, 180-185.	1.5	8
61	Characterization of cast A356 alloy reinforced with nano SiC composites. Transactions of Nonferrous Metals Society of China, 2012, 22, 275-280.	1.7	149
62	Application of a linearly decreasing weight particle swarm to optimize the process conditions of al matrix nanocomposites. Metallurgist, 2012, 56, 414-422.	0.2	7
63	Computational fluid dynamics (CFD) simulation of effect of baffles on separation in mixer settler. International Journal of Mining Science and Technology, 2012, 22, 703-706.	4.6	12
64	The enhancement of wear properties of squeeze-cast A356 composites reinforced with B4C particulates. International Journal of Materials Research, 2012, 103, 847-852.	0.1	14
65	Effect of Addition of TiC Master Alloy on the Properties of CK45. Materials and Manufacturing Processes, 2012, 28, 31-35.	2.7	9
66	The numerical modeling of abrasion resistance in casting aluminumâ€“silicon alloy matrix composites. Journal of Composite Materials, 2012, 46, 2647-2658.	1.2	20
67	Synthesis of TiC Master Alloy in Nanometer Scale by Mechanical Milling. Materials and Manufacturing Processes, 2012, 27, 1310-1314.	2.7	18
68	Hardness and tensile strength study on Al356â€“B₄C composites. Materials Science and Technology, 2012, 28, 634-638.	0.8	24
69	Artificial Intelligence in numerical modeling of nano sized ceramic particulates reinforced metal matrix composites. Applied Mathematical Modelling, 2012, 36, 5455-5465.	2.2	62
70	FEM and ANN investigation of A356 composites reinforced with B4C particulates. Journal of King Saud University, Engineering Sciences, 2012, 24, 107-113.	1.2	20
71	Assistance of Novel Artificial Intelligence in Optimization of Aluminum Matrix Nanocomposite by Genetic Algorithm. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 5279-5285.	1.1	36
72	Mechanical properties of A356 matrix composites reinforced with nano-SiC particles. Strength of Materials, 2012, 44, 686-692.	0.2	51

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73	Effect of coated B4C reinforcement on mechanical properties of squeeze cast A356 composites. Metallic Materials, 2012, 50, 107-113.	0.2	13
74	The most accurate ANN learning algorithm for FEM prediction of mechanical performance of alloy A356. Metallic Materials, 2012, 50, 25-31.	0.2	8
75	Application of Finite Element Model and Artificial Neural Network in Characterization of Al Matrix Nanocomposites Using Various Training Algorithms. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2158-2165.	1.1	51
76	A356 Reinforced with Nanoparticles: Numerical Analysis of Mechanical Properties. Jom, 2012, 64, 323-329.	0.9	39
77	The GA Optimization Performance in the Microstructure and Mechanical Properties of MMNCs. Transactions of the Indian Institute of Metals, 2012, 65, 77-83.	0.7	28
78	A comparative study on abrasive wear behavior of semisolidâ€“liquid processed Alâ€“Si matrix reinforced with coated B4C reinforcement. Transactions of the Indian Institute of Metals, 2012, 65, 145-154.	0.7	40
79	Study of Tribological and Mechanical Properties of A356â€“Nano SiC Composites. Transactions of the Indian Institute of Metals, 2012, 65, 393-398.	0.7	31
80	Tribological behaviour of semisolidâ€“semisolid compocast Alâ€“Si matrix composites reinforced with TiB2 coated B4C particulates. Ceramics International, 2012, 38, 1887-1895.	2.3	42
81	Study on microstructure and abrasive wear behavior of sintered Al matrix composites. Ceramics International, 2012, 38, 4263-4269.	2.3	104
82	Optimization of process conditions in casting aluminum matrix composites via interconnection of artificial neurons and progressive solutions. Ceramics International, 2012, 38, 4541-4547.	2.3	45
83	Influence of the hard coated B4C particulates on wear resistance of Alâ€“Cu alloys. Composites Part B: Engineering, 2012, 43, 1302-1308.	5.9	63
84	Nano-sized silicon carbide reinforced commercial casting aluminum alloy matrix: Experimental and novel modeling evaluation. Powder Technology, 2012, 217, 558-565.	2.1	70
85	Process conditions optimization in Alâ€“Cu alloy matrix composites. Powder Technology, 2012, 225, 101-106.	2.1	34
86	Mechanical Properties of Squeeze-Cast A356 Composites Reinforced With B4C Particulates. Journal of Materials Engineering and Performance, 2012, 21, 247-252.	1.2	79
87	Investigation on mechanical properties of nano-Al₂O₃-reinforced aluminum matrix composites. Journal of Composite Materials, 2011, 45, 2579-2586.	1.2	156
88	Prediction of wear properties in A356 matrix composite reinforced with B4C particulates. Synthetic Metals, 2011, 161, 1226-1231.	2.1	48
89	Prediction of Mechanical Properties of Cast A356 Alloy as a Function of Microstructure and Cooling Rate. Archives of Metallurgy and Materials, 2011, 56, .	0.6	43
90	Modelling of mechanical properties of cast A356 alloy. Fatigue and Fracture of Engineering Materials and Structures, 2011, 34, 1035-1040.	1.7	29

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91	A model for carbon nanotube FETs in the ballistic limit. Microelectronics Journal, 2011, 42, 1299-1304.	1.1	7
92	The accuracy of various training algorithms in tribological behavior modeling of A356-B4C composites. Russian Metallurgy (Metally), 2011, 2011, 699-707.	0.1	40
93	Modeling of the wear behavior in A356â€“B4C composites. Journal of Materials Science, 2011, 46, 6700-6708.	1.7	37
94	Fluid flow characterization of liquidâ€“liquid mixing in mixer-settler. Engineering With Computers, 2011, 27, 373-379.	3.5	14
95	Synthesis of Feâ€“TiCâ€“Al2O3 hybrid nanocomposite via carbothermal reduction enhanced by mechanical activation. Ceramics International, 2011, 37, 443-449.	2.3	36
96	Microstructural prediction of cast A356 alloy as a function of cooling rate. Jom, 2011, 63, 132-136.	0.9	31
97	The ANN application in FEM modeling of mechanical properties of Alâ€“Si alloy. Applied Mathematical Modelling, 2011, 35, 5707-5713.	2.2	50
98	Solidification of A356 Al alloy: Experimental study and modeling. Metallic Materials, 2011, 49, 253-258.	0.2	31
99	Synthesis and characterisation of TiO<SUB align=right>2 nanoparticle with polypyridily complexes for using in solar cells. International Journal of Nanomanufacturing, 2010, 5, 352.	0.3	4
100	Development of high-performance A356/nano-Al2O3 composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 518, 61-64.	2.6	340
101	Effects of compatibilization of oxidized polypropylene on PP blends of PP/PA6 and PP/talc. Journal of Applied Polymer Science, 2004, 92, 2871-2883.	1.3	16