Ahmed Mohamed Mahmoud Ibrahim

List of Publications by Year
in descending order

54 papers	935 citations	471061 17 h-index	525886 27 g-index
54 all docs	54 docs citations	54 times ranked	472 citing authors

#	Article	IF	Citations
1	Investigation of mechanical and tribological behaviors of multilayer graphene reinforced Ni3Al matrix composites. Composites Part B: Engineering, 2015, 70, 149-155.	5.9	105
2	Fine-tuned artificial intelligence model using pigeon optimizer for prediction of residual stresses during turning of Inconel 718. Journal of Materials Research and Technology, 2021, 15, 3622-3634.	2.6	67
3	Energy conservation and environmental sustainability during grinding operation of Tiâ€“6Alâ€“4V alloys via eco-friendly oil/graphene nano additive and Minimum quantity lubrication. Tribology International, 2020, 150, 106387.	3.0	48
4	An extensive analysis of mechanical, thermal and physical properties of jute fiber composites with different fiber orientations. Case Studies in Thermal Engineering, 2021, 28, 101612.	2.8	48
5	Friction and wear behaviors of TC4 alloy with surface microporous channels filled by Sn-Ag-Cu and Al2O3 nanoparticles. Surface and Coatings Technology, 2020, 387, 125552.	2.2	38
6	Evaluating the effect of minimum quantity lubrication during hard turning of AISI D3 steel using vegetable oil enriched with nano-additives. AEJ - Alexandria Engineering Journal, 2022, 61, 10925-10938.	3.4	38
7	Tribological Performance of Gradient Ag-Multilayer Graphene/TC4 Alloy Self-Lubricating Composites Prepared By Laser Additive Manufacturing. Tribology Transactions, 2021, 64, 819-829.	1.1	34
8	Improved Friction and Wear of M50 Steel Composites Incorporated with ZnO as a Solid Lubricant with Different Concentrations Under Different Loads. Journal of Materials Engineering and Performance, 2017, 26, 4855-4866.	1.2	32
9	A comprehensive review on residual stresses in turning. Advances in Manufacturing, 2022, 10, 287-312.	3.2	28
10	Effects of surface composite structure with micro-grooves and Sn-Ag-Cu on reducing friction and wear of Ni3Al alloys. Surface and Coatings Technology, 2020, 387, 125540.	2.2	26
11	Minimization of fume emissions in laser cutting of polyvinyl chloride sheets using genetic algorithm. International Journal of Environmental Science and Technology, 2022, 19, 6331-6344.	1.8	26
12	Effect of Low Hydroxyapatite Loading Fraction on the Mechanical and Tribological Characteristics of Poly(Methyl Methacrylate) Nanocomposites for Dentures. Polymers, 2021, 13, 857.	2.0	23
13	Performance Assessment and Chip Morphology Evaluation of Austenitic Stainless Steel under Sustainable Machining Conditions. Metals, 2021, 11, 1931.	1.0	23
14	Machinability Investigation of Nitronic 60 Steel Turning Using SiAlON Ceramic Tools under Different Cooling/Lubrication Conditions. Materials, 2022, 15, 2368.	1.3	21
15	Formation of Friction Layers in Graphene-Reinforced TiAl Matrix Self-Lubricating Composites. Tribology Transactions, 2015, 58, 668-678.	1.1	20
16	Modeling of the Transient Temperature Field during Laser Heating. Lasers in Manufacturing and Materials Processing, 2021, 8, 97-112.	1.2	20
17	The Enhanced Tribological Properties of NiAl Intermetallics: Combined Lubrication of Multilayer Graphene and WS2. Tribology Letters, 2014, 56, 573-582.	1.2	19
18	Enhancing the tribological and mechanical properties of M50 steel using solid lubricants â€“ A detailed review. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2018, 232, 619-642.	1.0	19

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19	Effect of counterface balls on the friction layer of Ni3Al matrix composites with 1.5Âwt% graphene nanoplatelets. Tribology Letters, 2014, 55, 343-352.	1.2	18
20	Tribological behavior of a TiAl matrix composite containing 10 wt% Ag investigated at four wear stages. RSC Advances, 2015, 5, 77885-77896.	1.7	17
21	Tribological Behavior of NiAlâ€“1.5Âwt% Graphene Composite Under Different Velocities. Tribology Transactions, 2014, 57, 1044-1050.	1.1	16
22	Effects of groove-textured surfaces filled with Sn-Ag-Cu and MXene-Ti3C2 composite lubricants on tribological properties of CSS-42L bearing steel. Friction, 2022, 10, 1091-1113.	3.4	15
23	Tribological Characteristics of NiAl Matrix Composites with 1.5Âwt% Graphene at Elevated Temperatures: An Experimental and Theoretical Study. Tribology Transactions, 2015, 58, 1076-1083.	1.1	14
24	Synergetic Lubricating Effect of WS₂and Ti₃SiC₂on Tribological Properties of Ni₃Al Matrix Composites at Elevated Temperatures. Tribology Transactions, 2015, 58, 454-466.	1.1	14
25	High Wear Resistance and Mechanical Performance of NiAl Bronze Developed by Electron Beam Powder Bed Fusion. Tribology Letters, 2021, 69, 1.	1.2	14
26	Effect of TiB2 on Tribological Properties of TiAl Self-lubricating Composites Containing Ag at Elevated Temperature. Journal of Materials Engineering and Performance, 2015, 24, 307-318.	1.2	13
27	Wear rate of a TiAl matrix composite containing 10 wt% Ag predicted using the Newton interpolation method. RSC Advances, 2015, 5, 67102-67114.	1.7	13
28	Enhancing the tribological performance of epoxy composites utilizing carbon nano fibers additives for journal bearings. Materials Research Express, 2019, 6, 035307.	0.8	12
29	Enhancing the tribological properties of NiAl based nano-composites for aerospace bearing applications. Materials Research Express, 2019, 6, 085067.	0.8	12
30	Tribological Performance of Ni₃Al Self-Lubricating Composites with Different Content of TiC at Elevated Temperature. Tribology Transactions, 2015, 58, 365-373.	1.1	11
31	Tribological Characterization of NiAl Self-Lubricating Composites Containing V2O5 Nanowires. Journal of Materials Engineering and Performance, 2016, 25, 4941-4951.	1.2	11
32	Influence of Subsurface Micro/Nano-Structural Evolution on Macroscopic Tribological Behavior of Ni3Al Matrix Composites. Tribology Letters, 2015, 57, 1.	1.2	10
33	Improving the tribological properties of NiAl matrix composites via hybrid lubricants of silver and graphene nano platelets. RSC Advances, 2015, 5, 61554-61561.	1.7	9
34	Influence of Lubricants on Wear and Self-Lubricating Mechanisms of Ni3Al Matrix Self-Lubricating Composites. Journal of Materials Engineering and Performance, 2015, 24, 280-295.	1.2	8
35	A Study of the Frictional Layer of TiAl-12Ag-5TiB2 Composite During Dry Sliding Wear. Journal of Materials Engineering and Performance, 2015, 24, 2875-2884.	1.2	8
36	Additive manufacturing of isotropic-grained, high-strength and high-ductility copper alloys. Additive Manufacturing, 2021, 38, 101751.	1.7	8

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37	Modeling of the removal mechanism of monocrystalline silicon-based on phase change-dislocation theory and its edge chipping damage during micro-grinding. Precision Engineering, 2021, 71, 103-118.	1.8	8
38	In Vitro Degradability, Microstructural Evaluation, and Biocompatibility of Zn-Ti-Cu-Ca-P Alloy. Nanomaterials, 2022, 12, 1357.	1.9	8
39	Investigation of mechanical and tribological properties of triboâ€layer of Ni₃Al matrix composites. Lubrication Science, 2016, 28, 407-422.	0.9	7
40	Tribological and friction-induced vibration and noise performance of Ti6Al4V-multilayer graphene self-lubricating composites. Materials Research Express, 2018, 5, 096511.	0.8	7
41	Hybrid micro-grinding process for manufacturing meso/micro-structures on monocrystalline silicon. Materials and Manufacturing Processes, 2021, 36, 17-26.	2.7	7
42	Analysis of large edge breakage of WC-Co cemented carbide tool blades emerging in precision grinding process. Journal of Materials Research and Technology, 2022, 19, 3916-3929.	2.6	7
43	Research on the Thickness of the Friction Layer of Ni3Al Matrix Composites with Graphene Nanoplatelets. Tribology Letters, 2015, 59, 1.	1.2	6
44	Investigation of Mechanical and Tribological Performance of Ti6Al4V-Based Self-Lubricating Composites with Different Microporous Channel Parameters. Journal of Materials Engineering and Performance, 2020, 29, 3995-4008.	1.2	5
45	Tribological Behavior of Î³-TiAl Matrix Composites with Different Contents of Multilayer Graphene. Journal of Materials Engineering and Performance, 2017, 26, 2776-2783.	1.2	4
46	Tribological Performance and Self-Lubricating Film Formation Mechanism of TiAl-Based Composites at Elevated Temperatures. Journal of Materials Engineering and Performance, 2017, 26, 268-276.	1.2	4
47	Effect of Hardness Ratio on the Wear Performance and Subsurface Evolution of Ni₃Al Matrix Composites. Tribology Transactions, 2017, 60, 902-912.	1.1	4
48	Investigation of mechanical force acting on the surface modified-substrate layer area during the chemical-mechanical micro-grinding of monocrystalline silicon. International Journal of Mechanical Sciences, 2022, 228, 107482.	3.6	4
49	The Research on the Bionic Friction Layers of TiAl-10wt.%V2O5 Nanowires at the Applied Loads of 6-24ÂN. Journal of Materials Engineering and Performance, 2016, 25, 5391-5399.	1.2	3
50	Tribological performance of Ni3Al matrix self-lubricating composites containing Ag prepared by laser melting deposition. Materials Research Express, 2018, 5, 126514.	0.8	1
51	Graphene oxide decorated spherical powder for Ni superalloy with high yield strength and ductility. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142221.	2.6	1
52	Investigation of the effect of vibration characteristics on the grinding performance of aero-engine blade tip. International Journal of Advanced Manufacturing Technology, 2022, 120, 4663-4679.	1.5	1
53	Differences in tribological performance between spark plasma sintering and laser melting deposition for fabrication of Ni₃Al matrix self-lubricating composites. Materials Research Express, 2018, 5, 076501.	0.8	0
54	Investigation of friction noise properties of M50 matrix curved microporous channel composites filled with Sn-Ag-Cu. Industrial Lubrication and Tribology, 2021, 73, 855-861.	0.6	0