Rehan Ahmed

List of Publications by Year
in descending order

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69 papers	1,829 citations	201674 27 h-index	302126 39 g-index
69 all docs	69 docs citations	69 times ranked	1129 citing authors

#	Article	IF	Citations
1	Rolling contact fatigue of surface coatingsâ€"a review. Wear, 2002, 253, 1132-1144.	3.1	125
2	Rolling contact fatigue of post-treated WCâ€"NiCrBSi thermal spray coatings. Surface and Coatings Technology, 2005, 190, 171-189.	4.8	75
3	Contact fatigue failure evaluation of post-treated WCâ€"NiCrBSi functionally graded thermal spray coatings. Wear, 2004, 257, 962-983.	3.1	73
4	Numerical modelling of particle impact and residual stresses in cold sprayed coatings: A review. Surface and Coatings Technology, 2021, 409, 126835.	4.8	63
5	Sliding wear investigation of suspension sprayed WCâ€"Co nanocomposite coatings. Wear, 2015, 322-323, 133-150.	3.1	60
6	Indentation testing and its acoustic emission response: applications and emerging trends. International Materials Reviews, 2011, 56, 98-142.	19.3	55
7	Contact fatigue failure modes in hot isostatically pressed WC-12%Co coatings. Surface and Coatings Technology, 2003, 172, 204-216.	4.8	50
8	Identification of surface features on cold-rolled stainless steel strip. Wear, 2000, 244, 60-70.	3.1	49
9	An Experimental Investigation of Surface Pit Evolution During Cold-Rolling or Drawing of Stainless Steel Strip. Journal of Tribology, 2001, 123, 1-7.	1.9	49
10	Mechanisms of Fatigue Failure in Thermal Spray Coatings. Journal of Thermal Spray Technology, 2002, 11, 333-349.	3.1	49
11	Contact fatigue failure modes of HVOF coatings. Wear, 2002, 253, 473-487.	3.1	46
12	An improved Vickers indentation fracture toughness model to assess the quality of thermally sprayed coatings. Engineering Fracture Mechanics, 2014, 128, 189-204.	4.3	46
13	Influence of heat-treatment on the sliding wear of thermal spray cermet coatings. Surface and Coatings Technology, 2005, 199, 7-21.	4.8	45
14	Sliding wear evaluation of hot isostatically pressed (HIPed) thermal spray cermet coatings. Wear, 2004, 257, 1103-1124.	3.1	42
15	Single asperity nanoscratch behaviour of HIPed and cast Stellite 6 alloys. Wear, 2014, 312, 70-82.	3.1	41
16	Rolling contact fatigue performance of detonation gun coated elements. Tribology International, 1997, 30, 129-137.	5.9	40
17	Failure modes of plasma sprayed WCâ€"15%Co coated rolling elements. Wear, 1999, 230, 39-55.	3.1	38
18	Neutron diffraction residual strain measurements in post-treated thermal spray cermet coatings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 498, 191-202.	5.6	37

#	Article	IF	Citations
19	Structure Property Relationship of Suspension Thermally Sprayed WC-Co Nanocomposite Coatings. Journal of Thermal Spray Technology, 2015, 24, 357-377.	3.1	36
20	Sliding Wear of Conventional and Suspension Sprayed Nanocomposite WC-Co Coatings: An Invited Review. Journal of Thermal Spray Technology, 2021, 30, 800-861.	3.1	36
21	Experimental measurement of the residual stress field within thermally sprayed rolling elements. Wear, 1997, 209, 84-95.	3.1	35
22	Influence of Re-HIPing on the structureâ€“property relationships of cobalt-based alloys. Tribology International, 2013, 57, 8-21.	5.9	34
23	Cyclic Nanoindentation and Nano-Impact Fatigue Mechanisms of Functionally Graded TiN/TiNi Film. Shape Memory and Superelasticity, 2017, 3, 149-167.	2.2	34
24	Rolling Contact Fatigue. , 2002, , 941-956.		34
25	Influence of Manufacturing Process and Alloying Element Content on the Tribomechanical Properties of Cobalt-Based Alloys. Journal of Tribology, 2009, 131, .	1.9	31
26	Influence of test methodology and probe geometry on nanoscale fatigue failure of diamond-like carbon film. Surface and Coatings Technology, 2014, 242, 42-53.	4.8	30
27	A Comparison of the Tribo-Mechanical Properties of a Wear Resistant Cobalt-Based Alloy Produced by Different Manufacturing Processes. Journal of Tribology, 2007, 129, 586-594.	1.9	29
28	Influence of Post-treatment on the Microstructural and Tribomechanical Properties of Suspension Thermally Sprayed WCâ€“12Âwt%Co Nanocomposite Coatings. Tribology Letters, 2017, 65, 1.	2.6	29
29	Sliding Wear Evaluation of Hot Isostatically Pressed Thermal Spray Cermet Coatings. Journal of Thermal Spray Technology, 2004, 13, 93-107.	3.1	28
30	Rolling contact fatigue behaviour of thermally sprayed rolling elements. Surface and Coatings Technology, 1996, 82, 176-186.	4.8	26
31	Rolling contact fatigue performance of plasma sprayed coatings. Wear, 1998, 220, 80-91.	3.1	25
32	The Use of Acoustic Emission to Characterize Fracture Behavior During Vickers Indentation of HVOF Thermally Sprayed WC-Co Coatings. Journal of Thermal Spray Technology, 2009, 18, 525-535.	3.1	25
33	Residual Strain Measurements in Thermal Spray Cermet Coatings via Neutron Diffraction. Journal of Tribology, 2007, 129, 411-418.	1.9	23
34	A comparison of neutron diffraction and hole-drilling residual strain measurements in thermally sprayed coatings. Surface and Coatings Technology, 2012, 206, 4180-4185.	4.8	23
35	Modeling of Micro-Pit Evolution in Rolling or Strip-Drawing. Journal of Tribology, 2001, 123, 791-798.	1.9	22
36	Evaluation of Nanomechanical Properties of (Styreneâ€“Methyl Methacrylate) Copolymer Composites Containing Graphene Sheets. Industrial & Engineering Chemistry Research, 2013, 52, 17871-17881.	3.7	22

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37	Neutron diffraction residual strain measurements in nanostructured hydroxyapatite coatings for orthopaedic implants. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 2043-2054.	3.1	21
38	Structureâ€“property relationships in a CoCrMo alloy at micro and nano-scales. Tribology International, 2014, 80, 98-114.	5.9	20
39	Residual Strain and Fracture Response of Al2O3 Coatings Deposited via APS and HVOF Techniques. Journal of Thermal Spray Technology, 2012, 21, 23-40.	3.1	18
40	Comparative Study of Corrosion Performance of HVOF-Sprayed Coatings Produced Using Conventional and Suspension WC-Co Feedstock. Journal of Thermal Spray Technology, 2018, 27, 1579-1593.	3.1	18
41	Wear of high-velocity oxy-fuel (HVOF)-coated cones in rolling contact. Wear, 1997, 203-204, 98-106.	3.1	17
42	Influence of Substrate Properties on the Impact Resistance of WC Cermet Coatings. Journal of Thermal Spray Technology, 2005, 14, 495-501.	3.1	17
43	Finite Element Modeling of Sliding Wear in a Composite Alloy Using a Free-Mesh. Journal of Tribology, 2015, 137, .	1.9	16
44	Sliding wear evaluation of hot isostatically pressed thermal spray ceramet coatings. Journal of Thermal Spray Technology, 2004, 13, 93-107.	3.1	14
45	Influence of indenter shape on DLC film failure during multiple load cycle nanoindentation. Materials Science and Technology, 2012, 28, 1186-1197.	1.6	14
46	Nano-Impact (Fatigue) Characterization of As-Deposited Amorphous Nitinol Thin Film. Coatings, 2012, 2, 195-209.	2.6	13
47	Modeling the Evolution of Residual Stresses in Thermally Sprayed YSZ Coating on Stainless Steel Substrate. Journal of Thermal Spray Technology, 2019, 28, 717-736.	3.1	12
48	Thermal Spray Coatings for Electromagnetic Wave Absorption and Interference Shielding: A Review and Future Challenges. Advanced Engineering Materials, 2022, 24, .	3.5	12
49	An improved measurement of Vickers indentation behaviour through enhanced instrumentation. Measurement Science and Technology, 2011, 22, 015703.	2.6	11
50	Diametral compression test method to analyse relative surface stresses in thermally sprayed coated and uncoated circular disc specimens. Surface and Coatings Technology, 2019, 357, 497-514.	4.8	11
51	Neutron Diffraction Residual Strain Measurements in Plasma Sprayed Nanostructured Hydroxyapatite Coatings for Orthopaedic Implants. Materials Science Forum, 0, 652, 309-314.	0.3	10
52	Sliding wear of blended cobalt based alloys. Wear, 2021, 466-467, 203533.	3.1	10
53	Microwave Irradiation Synthesis and Characterization of Reduced-(Graphene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 107 Td (C Anti-Microbial Activity. Polymers, 2020, 12, 1155.	4.5	10
54	Fatigue behaviour of HVOF coated M50 steel rolling elements. Surface Engineering, 1998, 14, 473-480.	2.2	8

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55	Neutron diffraction residual strain measurements in alumina coatings deposited via APS and HVOF techniques. Journal of Physics: Conference Series, 2010, 251, 012051.	0.4	8
56	AE Monitoring and Analysis of HVOF Thermal Spraying Process. Journal of Thermal Spray Technology, 2011, 20, 1071-1084.	3.1	8
57	Development of Plasma-Sprayed Molybdenum Carbide-Based Anode Layers with Various Metal Oxides for SOFC. Journal of Thermal Spray Technology, 2015, 24, 1415-1428.	3.1	8
58	Neutron Diffraction Residual Strain Measurements of Molybdenum Carbide-Based Solid Oxide Fuel Cell Anode Layers with Metal Oxides on Hastelloy X. Experimental Mechanics, 2018, 58, 585-603.	2.0	8
59	Fatigue at Nanoscale: An Integrated Stiffness and Depth Sensing Approach to Investigate the Mechanisms of Failure in Diamondlike Carbon Film. Journal of Tribology, 2012, 134, .	1.9	7
60	Future of nanoindentation in archaeometry. Journal of Materials Research, 2018, 33, 2515-2532.	2.6	7
61	Acoustic emission analysis of Vickers indentation fracture of cermet and ceramic coatings. Measurement Science and Technology, 2011, 22, 125704.	2.6	5
62	Friction and Wear of Cobalt-Base Alloys. , 2017, , 487-501.		5
63	Modern and Historical Engineering Components Investigated by Neutron Diffraction on ENGIN-X. Journal of Solid Mechanics and Materials Engineering, 2012, 6, 408-418.	0.5	4
64	Measuring Residual Strain and Stress in Thermal Spray Coatings Using Neutron Diffractometers. Experimental Mechanics, 2022, 62, 369-392.	2.0	4
65	Application of Acoustic Emission for Monitoring the HVOF Thermal Spraying Process. Advanced Materials Research, 2006, 13-14, 291-298.	0.3	3
66	Nanoindentation Evaluation of Suspension Thermal Sprayed Nanocomposite WC-Co Coatings. Key Engineering Materials, 0, 735, 225-229.	0.4	2
67	DLC thin film behaviour during multiple-cycle repeating nano-indentation. , 2012, , .		2
68	Influence of Plasticity and Friction on the Contact Mechanics of Auxetic Materials. Journal of Tribology, 2021, 143, .	1.9	1
69	Microstructural Evaluation of Suspension Thermally Sprayed WC-Co Nanocomposite Coatings. Springer Proceedings in Physics, 2015, , 31-38.	0.2	0