Mark Hadfield

List of Publications by Year
in descending order

84 papers	2,151 citations	236925 25 h-index	289244 40 g-index
87 all docs	87 docs citations	87 times ranked	1377 citing authors

#	Article	IF	Citations
1	Ensuring Rigor in Qualitative Data Analysis. International Journal of Qualitative Methods, The, 2018, 17, 160940691878636.	2.8	259
2	Future perspectives on sustainable tribology. Renewable and Sustainable Energy Reviews, 2012, 16, 4126-4140.	16.4	104
3	A sustainable product design model. Materials & Design, 2006, 27, 1128-1133.	5.1	101
4	Ceramic rolling elements with ring crack defectsâ€"A residual stress approach. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 404, 221-226.	5.6	76
5	Ionic liquids as a neat lubricant applied to steelâ€"steel contacts. Tribology International, 2014, 72, 42-50.	5.9	52
6	Experimental and analytical thermal study of PTFE composite sliding against high carbon steel as a function of the surface roughness, sliding velocity and applied load. Wear, 2013, 303, 154-168.	3.1	51
7	Mechanisms of Fatigue Failure in Thermal Spray Coatings. Journal of Thermal Spray Technology, 2002, 11, 333-349.	3.1	49
8	FAPâ^' Anion Ionic Liquids Used in the Lubrication of a Steelâ€"Steel Contact. Tribology Letters, 2013, 52, 431-437.	2.6	49
9	Thermal analysis and tribological investigation on TPU and NBR elastomers applied to sealing applications. Tribology International, 2018, 127, 24-36.	5.9	48
10	The influence of ring crack location on the rolling contact fatigue failure of lubricated silicon nitride: experimental studies. Wear, 2000, 243, 157-166.	3.1	47
11	Failure modes of ceramic elements with ring-crack defects. Tribology International, 1993, 26, 157-164.	5.9	43
12	Low-Cost Oil Quality Sensor Based on Changes in Complex Permittivity. Sensors, 2011, 11, 10675-10690.	3.8	42
13	Rolling contact fatigue performance of detonation gun coated elements. Tribology International, 1997, 30, 129-137.	5.9	40
14	Failure modes of plasma sprayed WCâ€"15%Co coated rolling elements. Wear, 1999, 230, 39-55.	3.1	38
15	The effect of the test machine on the failure mode in lubricated rolling contact of silicon nitride. Tribology International, 1995, 28, 377-382.	5.9	37
16	Failure of silicon nitride rolling elements with ring crack defects. Ceramics International, 1998, 24, 379-386.	4.8	37
17	The influence of ring crack location on the rolling contact fatigue failure of lubricated silicon nitride: fracture mechanics analysis. Wear, 2000, 243, 167-174.	3.1	37
18	Lubrication of PVD coatings with ethyl-dimethyl-2-methoxyethylammonium tris(pentafluoroethyl)trifluorophosphate. Tribology International, 2013, 58, 71-78.	5.9	37

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19	Experimental measurement of the residual stress field within thermally sprayed rolling elements. Wear, 1997, 209, 84-95.	3.1	35
20	Realising the potential of school-based networks. Educational Research, 2010, 52, 309-323.	1.8	34
21	Two phosphonium cation-based ionic liquids as lubricant additive to a polyalphaolefin base oil. Journal of Molecular Liquids, 2019, 293, 111536.	4.9	31
22	Failure modes of pre-cracked ceramic elements under rolling contact. Wear, 1993, 169, 69-75.	3.1	30
23	Ring crack propagation in silicon nitride under rolling contact. Wear, 2001, 250, 282-292.	3.1	30
24	Failure modes of ceramic rolling elements with surface crack defects. Wear, 2004, 256, 208-219.	3.1	28
25	Examination of the material removal mechanisms during the lapping process of advanced ceramic rolling elements. Wear, 2005, 258, 2-12.	3.1	28
26	Rolling contact fatigue behaviour of thermally sprayed rolling elements. Surface and Coatings Technology, 1996, 82, 176-186.	4.8	26
27	Observations of acoustically generated cavitation bubbles within typical fluids applied to a scroll expander lubrication system. Experimental Thermal and Fluid Science, 2011, 35, 1544-1554.	2.7	26
28	Rolling contact fatigue performance of plasma sprayed coatings. Wear, 1998, 220, 80-91.	3.1	25
29	The influence of lubricant viscosity on the wear of hermetic compressor components in HFC-134a environments. Wear, 1999, 236, 1-8.	3.1	25
30	Early stage cavitation erosion within ceramicsâ€"An experimental investigation. Ceramics International, 2009, 35, 3301-3312.	4.8	25
31	Experimental study and analytical model of the cavitation ring region with small diameter ultrasonic horn. Ultrasonics Sonochemistry, 2011, 18, 73-79.	8.2	25
32	Co-leaders and middle leaders: the dynamic between leaders and followers in networks of schools. School Leadership and Management, 2007, 27, 259-283.	1.6	24
33	How might better network theories support school leadership research?. School Leadership and Management, 2012, 32, 109-121.	1.6	24
34	Material Characterization and Real-Time Wear Evaluation of Pistons and Cylinder Liners of the Tiger 131 Military Tank. Tribology Transactions, 2013, 56, 637-644.	2.0	24
35	Teachers' Perspectives on Effective School Leadership. Teachers and Teaching: Theory and Practice, 2003, 9, 67-77.	1.9	20
36	Cavitation damage incubation with typical fluids applied to a scroll expander system. Tribology International, 2011, 44, 1668-1678.	5.9	20

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37	A study of line defect fatigue failure of ceramic rolling elements in rolling contact. Wear, 2002, 253, 975-985.	3.1	19
38	Residual stress variations during rolling contact fatigue of refrigerant lubricated silicon nitride bearing elements. Ceramics International, 2006, 32, 751-754.	4.8	19
39	Meeting the challenges of active learning in Webâ€based case studies for sustainable development. Innovations in Education and Teaching International, 2007, 44, 331-343.	2.5	19
40	Finite elements based approaches for the modelling of radial crack formation upon Vickers indentation in silicon nitride ceramics. Journal of the European Ceramic Society, 2019, 39, 4011-4022.	5.7	18
41	Pressurised chamber design for conducting rolling contact experiments with liquid refrigerant lubrication. Materials & Design, 2005, 26, 680-689.	5.1	17
42	Manufacturing induced residual stress influence on the rolling contact fatigue life performance of lubricated silicon nitride bearing materials. Materials & Design, 2007, 28, 2688-2693.	5.1	17
43	Strategies for developing sustainable design practice for students and SME professionals. European Journal of Engineering Education, 2008, 33, 331-342.	2.3	17
44	Cavitation erosion in silicon nitride: Experimental investigations on the mechanism of material degradation. Tribology International, 2010, 43, 2251-2257.	5.9	17
45	Subsurface crack investigation on delaminated ceramic elements. Tribology International, 1994, 27, 359-367.	5.9	16
46	A mechanism for nucleating secondary fractures near a pre-existing flaw subjected to contact loading. Wear, 2003, 254, 597-605.	3.1	16
47	Subsurface propagation of partial ring cracks under rolling contact. Wear, 2006, 261, 390-397.	3.1	16
48	Use of optical profilometry in the ASTM D4172 standard. Wear, 2011, 271, 2963-2967.	3.1	16
49	Surface strength of silicon nitride in relation to rolling contact performance. Ceramics International, 2009, 35, 3339-3346.	4.8	15
50	Tribological Behaviour of PVD Coatings Lubricated with a FAPâˆ’ Anion-Based Ionic Liquid Used as an Additive. Lubricants, 2016, 4, 8.	2.9	15
51	Tribological performance of tributylmethylammonium bis(trifluoromethylsulfonyl)amide as neat lubricant and as an additive in a polar oil. Friction, 2019, 7, 282-288.	6.4	15
52	Delamination of ceramic balls in rolling contact. Ceramics International, 1993, 19, 151-158.	4.8	14
53	The influence of test lubricants on the rolling contact fatigue failure mechanisms of silicon nitride ceramic. Wear, 2004, 257, 1047-1057.	3.1	13
54	A model of friction for a pin-on-disc configuration with imposed pin rotation. Mechanism and Machine Theory, 2011, 46, 1755-1772.	4.5	13

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55	Pseudoplastic deformation pits on polished ceramics due to cavitation erosion. Ceramics International, 2011, 37, 1919-1927.	4.8	13
56	The influence of POE and PVE lubricant blends within hermetic refrigerating compressors operating with HFC-134a refrigerant. Wear, 2000, 241, 53-64.	3.1	12
57	An environmental evaluation of mechanical systems using environmentally acceptable refrigerants. International Journal of Life Cycle Assessment, 2000, 5, 209-220.	4.7	12
58	Rolling contact fatigue performance of HIPed Si3N4 with different surface roughness. Ceramics International, 2001, 27, 781-794.	4.8	12
59	Comparison between thermophysical and tribological properties of two engine lubricant additives: electrochemically exfoliated graphene and molybdenum disulfide nanoplatelets. Nanotechnology, 2021, 32, 025701.	2.6	12
60	The influence of heterogeneous porosity on silicon nitride/steel wear in lubricated rolling contact. Ceramics International, 2000, 26, 315-324.	4.8	11
61	Video: modalities and methodologies. International Journal of Research and Method in Education, 2012, 35, 311-324.	1.9	11
62	A study of tribological durability with associated environmental impacts of a domestic refrigerator. Materials & Design, 2004, 25, 331-341.	5.1	10
63	Cavitation and rolling wear in silicon nitride. Ceramics International, 2010, 36, 1373-1381.	4.8	10
64	School-Based Networking for Educational Change. , 2010, , 765-780.		10
65	Becoming critical again: reconnecting critical social theory with the practice of action research. Educational Action Research, 2012, 20, 571-585.	1.5	9
66	Residual stresses in failed ceramic rolling-contact balls. Ceramics International, 1993, 19, 307-313.	4.8	8
67	Observations of lubricated rolling contact fatigue on silicon nitride rods. Ceramics International, 1995, 21, 13-19.	4.8	8
68	Wear behaviour of the piston/gudgeon pin in a hermetic compressor with replacement CFC refrigerants. Wear, 1998, 219, 8-15.	3.1	8
69	Fatigue behaviour of HVOF coated M50 steel rolling elements. Surface Engineering, 1998, 14, 473-480.	2.2	8
70	Electrochemically exfoliated graphene and molybdenum disulfide nanoplatelets as lubricant additives. Journal of Molecular Liquids, 2021, 342, 116959.	4.9	8
71	Experimental wear modelling of lifeboat slipway launches. Tribology International, 2009, 42, 1706-1714.	5.9	7
72	Observations of delamination fatigue on pre-cracked ceramic elements in rolling contact. Ceramics International, 1995, 21, 125-130.	4.8	6

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73	Residual stress field of HIPed silicon nitride rolling elements. Ceramics International, 2002, 28, 645-650.	4.8	6
74	Wear observations applied to lifeboat slipway launches. Wear, 2009, 267, 2062-2069.	3.1	6
75	Surface strength of silicon nitride in relation to rolling contact performance measured on ball-on-rod and modified four-ball tests. Tribology International, 2010, 43, 423-432.	5.9	6
76	Assessing Boundary Film Forming Behavior of Phosphonium Ionic Liquids as Engine Lubricant Additives. Lubricants, 2016, 4, 17.	2.9	6
77	Residual stress measurements of hot isostatically pressed silicon nitride rolling elements. Ceramics International, 1998, 24, 387-392.	4.8	5
78	The challenges of evaluation: assessing Early Talk's impact on speech language and communication practice in children's centres. International Journal of Early Years Education, 2013, 21, 70-84.	0.8	5
79	Investment in Sustainable Development: A UK Perspective on the Business and Academic Challenges. Sustainability, 2009, 1, 1144-1160.	3.2	2
80	Mechanical Properties of Silicon Nitride Using RUS & C-Sphere Methodology. Advances in Science and Technology, 2010, 64, 71-75.	0.2	2
81	Modelling the criticality of silicon nitride surface imperfections under rolling and sliding contact. Tribology International, 2020, 148, 106317.	5.9	2
82	Leading School-Based Networks and Collaborative Learning: Working Together for Better Outcomes?. , 2011, , 915-929.		2
83	An approac h for adaptive model performance validation within digital twinning. International Journal of Computational Methods and Experimental Measurements, 2021, 9, 213-225.	0.2	0
84	DESIGN OF EXPERIMENTS PLATFORM FOR ONLINE SIMULATION MODEL VALIDATION AND PARAMETER UPDATING WITHIN DIGITAL TWINNING. WIT Transactions on Engineering Sciences, 2021, , .	0.0	0