Margaret M Stack

List of Publications by Year
in descending order

134 papers	4,098 citations	94269 37 h-index	143772 57 g-index
139 all docs	139 docs citations	139 times ranked	2056 citing authors

#	Article	IF	Citations
1	Erosion Mapping of Through-Thickness Toughened Powder Epoxy Gradient Glass-Fiber-Reinforced Polymer (GFRP) Plates for Tidal Turbine Blades. Lubricants, 2021, 9, 22.	1.2	3
2	A Study of Raindrop Impacts on a Wind Turbine Material: Velocity and Impact Angle Effects on Erosion MAPS at Various Exposure Times. Lubricants, 2021, 9, 60.	1.2	6
3	Mapping of Meteorological Observations over the Island of Ireland to Enhance the Understanding and Prediction of Rain Erosion in Wind Turbine Blades. Energies, 2021, 14, 4555.	1.6	4
4	On a multiphysics approach to modelling the erosionâ€“enhanced corrosion of lowâ€“alloy carbon steel in chloride containing environments. Corrosion Science, 2020, 176, 109045.	3.0	11
5	Mapping Tribo-Corrosion Behaviour of TI-6AL-4V Eli in Laboratory Simulated Hip Joint Environments. Lubricants, 2020, 8, 69.	1.2	10
6	On the Effect of Pre-formed Scales in Mitigating Corrosion of Steels in CO2 Environments. Journal of Bio- and Tribo-Corrosion, 2020, 6, 1.	1.2	1
7	Mapping the Micro-Abrasion Mechanisms of CoCrMo: Some Thoughts on Varying Ceramic Counterface Diameter on Transition Boundaries In Vitro. Lubricants, 2020, 8, 71.	1.2	6
8	Mapping Raindrop Erosion of GFRP Composite Wind Turbine Blade Materials: Perspectives on Degradation Effects in Offshore and Acid Rain Environmental Conditions. Journal of Tribology, 2020, 142, .	1.0	2
9	Repeated impact of simulated hail ice on glass fibre composite materials. Wear, 2019, 432-433, 102926.	1.5	10
10	A note on a design protocol for deoxygenation of water. Electrochemistry Communications, 2019, 103, 12-16.	2.3	7
11	Some Views on the Mapping of Erosion of Coated Composites In Tidal Turbine Simulated Conditions. Tribology Transactions, 2019, 62, 512-523.	1.1	6
12	Raindrop Erosion of Composite Materials: Some Views on the Effect of Bending Stress on Erosion Mechanisms. Journal of Bio- and Tribo-Corrosion, 2019, 5, 1.	1.2	11
13	Some Thoughts on Mapping Tribological Issues of Wind Turbine Blades Due to Effects of Onshore and Offshore Raindrop Erosion. Journal of Bio- and Tribo-Corrosion, 2018, 4, 1.	1.2	11
14	The Effect of Dissolved Oxygen in Slurry on Erosionâ€“Corrosion of En30B Steel. Journal of Bio- and Tribo-Corrosion, 2017, 3, 1.	1.2	19
15	Corrosion, Tribology, and Tribocorrosion Research in Biomedical Implants: Progressive Trend in the Published Literature. Journal of Bio- and Tribo-Corrosion, 2017, 3, 1.	1.2	53
16	Mapping hail meteorological observations for prediction of erosion in wind turbines. Wind Energy, 2016, 19, 777-784.	1.9	27
17	Mapping Synergy of Erosion Mechanisms of Tidal Turbine Composite Materials in Sea Water Conditions. Journal of Bio- and Tribo-Corrosion, 2016, 2, 1.	1.2	10
18	Impact Angle Effects on Erosion Maps of GFRP: Applications to Tidal Turbines. Journal of Bio- and Tribo-Corrosion, 2016, 2, 1.	1.2	9

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19	Micro-abrasion-corrosion Maps of 316L Stainless Steel in Artificial Saliva. Journal of Bio- and Tribo-Corrosion, 2015, 1, 1.	1.2	8
20	Wear mapping of CoCrMo alloy in simulated bio-tribocorrosion conditions of a hip prosthesis bearing in calf serum solution. Materials Science and Engineering C, 2015, 49, 452-462.	3.8	38
21	Methodology Development for Investigation of Slurry Abrasion Corrosion by Integrating an Electrochemical Cell to a Miller Tester. Journal of Bio- and Tribo-Corrosion, 2015, 1, 1.	1.2	5
22	Mapping wear mechanisms of TiC/Ti composite coatings. Wear, 2015, 328-329, 498-508.	1.5	56
23	Tribo-oxidation maps for Ti against steel. Tribology International, 2015, 91, 258-266.	3.0	14
24	Wear maps for TiC composite based coatings deposited on 303 stainless steel. Tribology International, 2014, 74, 93-102.	3.0	78
25	Tribo-corrosion of steel in artificial saliva. Tribology International, 2014, 75, 80-86.	3.0	20
26	Bio-tribocorrosion mechanisms in orthopaedic devices: Mapping the micro-abrasionâ€“corrosion behaviour of a simulated CoCrMo hip replacement in calf serum solution. Wear, 2014, 316, 58-69.	1.5	33
27	Phase transformation behavior of 3mol% yttria partially-stabilized ZrO2 (3Yâ€“PSZ) precursor powder by an isothermal method. Ceramics International, 2014, 40, 3243-3251.	2.3	31
28	Mapping the role of Cr content in dry sliding of steels: Comparison between maps for material and counterface. Tribology International, 2014, 80, 49-57.	3.0	15
29	Growth kinetics of tetragonal and monoclinic ZrO2 crystallites in 3mol% yttria partially stabilized ZrO2 (3Y-PSZ) precursor powder. Journal of Alloys and Compounds, 2014, 592, 288-295.	2.8	16
30	Micro-abrasion of Y-TZP in tea. Wear, 2013, 297, 713-721.	1.5	13
31	On erosion issues associated with the leading edge of wind turbine blades. Journal Physics D: Applied Physics, 2013, 46, 383001.	1.3	158
32	Special cluster issue on tribocorrosion of dental materials. Journal Physics D: Applied Physics, 2013, 46, 400301.	1.3	0
33	A comparison of the tribological behaviour of Y-TZP in tea and coffee under micro-abrasion conditions. Journal Physics D: Applied Physics, 2013, 46, 404008.	1.3	4
34	Future Needs and Challenges in Tribo-Corrosion Research and Testing. , 2013, , 214-226.		5
35	An Approach to Mapping the Erosionâ€“Corrosion of Stainless Steel: Applications to Tidal Energy Systems. , 2013, , 19-46.		3
36	Modelling Rain Drop Impact of Offshore Wind Turbine Blades. , 2012, , .		26

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37	Particle concentration and size effects on the erosion-corrosion of pure metals in aqueous slurries. Tribology International, 2012, 53, 35-44.	3.0	47
38	Mapping erosionâ€“corrosion of carbon steel in oilâ€“water solutions: Effects of velocity and applied potential. Wear, 2012, 274-275, 401-413.	1.5	45
39	Some views on the construction of bio-tribo-corrosion maps for Titanium alloys in Hank's solution: Particle concentration and applied loads effects. Tribology International, 2011, 44, 1827-1837.	3.0	28
40	A CFD model of particle concentration effects on erosionâ€“corrosion of Fe in aqueous conditions. Wear, 2011, 273, 38-42.	1.5	27
41	Micro-abrasionâ€“corrosion interactions of Niâ€“Cr/WC based coatings: Approaches to construction of tribo-corrosion maps for the abrasionâ€“corrosion synergism. Electrochimica Acta, 2011, 56, 8249-8259.	2.6	26
42	A note on threshold velocity criteria for modelling the solid particle erosion of WC/Co MMCs. Wear, 2011, 270, 439-445.	1.5	13
43	CrN/NbN coatings deposited by HIPIMS: A preliminary study of erosionâ€“corrosion performance. Surface and Coatings Technology, 2010, 204, 1158-1162.	2.2	33
44	Some remarks on particle size effects on the abrasion of a range of Fe based alloys. Tribology International, 2010, 43, 1307-1317.	3.0	11
45	Mapping erosion-corrosion of carbon steel in oil exploration conditions: Some new approaches to characterizing mechanisms and synergies. Tribology International, 2010, 43, 1268-1277.	3.0	100
46	2nd International Conference on TriboCorrosion: East meets West. Tribology International, 2010, 43, 1201-1202.	3.0	0
47	On the construction of wear maps for Y-TZP dental ceramics in aqueous environments: pH, exposure time and impact angle effects. Tribology International, 2010, 43, 2258-2267.	3.0	10
48	Some perspectives on modelling the effect of temperature on the erosionâ€“corrosion of Fe in aqueous conditions. Tribology International, 2010, 43, 2279-2297.	3.0	11
49	A new methodology for modelling erosionâ€“corrosion regimes on real surfaces: Gliding down the galvanic series for a range of metal-corrosion systems. Wear, 2010, 268, 533-542.	1.5	38
50	Micro-abrasionâ€“corrosion of a Coâ€“Cr/UHMWPE couple in Ringer's solution: An approach to construction of mechanism and synergism maps for application to bio-implants. Wear, 2010, 269, 376-382.	1.5	68
51	Tribo-corrosion mechanisms of stainless steel in soft drinks. Wear, 2010, 270, 104-114.	1.5	15
52	Tribocorrosion behaviour of TiC O thin films in bio-fluids. Electrochimica Acta, 2010, 56, 929-937.	2.6	55
53	Some comments on mapping the combined effects of slurry concentration, impact velocity and electrochemical potential on the erosionâ€“corrosion of WC/Coâ€“Cr coatings. Wear, 2008, 264, 826-837.	1.5	64
54	Micro-abrasion resistance of thermochemically treated steels in aqueous solutions: Mechanisms, maps, materials selection. Tribology International, 2008, 41, 141-149.	3.0	16

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55	Some thoughts on neural network modelling of microabrasionâ€“corrosion processes. Tribology International, 2008, 41, 672-681.	3.0	27
56	Tribo-Corrosion 2006â€”A passage to India to celebrate the 1st International Conference on Tribo-Corrosion. Tribology International, 2008, 41, 571-572.	3.0	0
57	A celebration of 25 years of the Tribology Group: from tribo-physics to tribo-chemistry. Journal Physics D: Applied Physics, 2007, 40, .	1.3	0
58	Some views on the erosionâ€“corrosion response of bulk chromium carbide based cermets. Journal Physics D: Applied Physics, 2006, 39, 3165-3174.	1.3	19
59	Velocity effects on erosionâ€“corrosion of CrN/NbN â€œsuperlatticeâ€•PVD coatings. Surface and Coatings Technology, 2006, 201, 361-370.	2.2	36
60	Mapping erosionâ€“corrosion of WC/Coâ€“Cr based composite coatings: Particle velocity and applied potential effects. Surface and Coatings Technology, 2006, 201, 1335-1347.	2.2	62
61	Modelling sliding wear: From dry to wet environments. Wear, 2006, 261, 954-965.	1.5	68
62	On the construction of erosionâ€“corrosion maps for WC/Coâ€“Cr-based coatings in aqueous conditions. Wear, 2006, 261, 1181-1190.	1.5	36
63	A study of the erosionâ€“corrosion of PVD CrN/NbN superlattice coatings in aqueous slurries. Wear, 2005, 259, 256-262.	1.5	29
64	Modelling impact angle effects on erosionâ€“corrosion of pure metals: Construction of materials performance maps. Wear, 2005, 259, 243-255.	1.5	36
65	On the construction of micro-abrasion maps for a steel/polymer couple in corrosive environments. Tribology International, 2005, 38, 848-856.	3.0	57
66	Title is missing!. Tribology International, 2005, 38, 785.	3.0	0
67	Modelling particulate erosionâ€“corrosion regime transitions for Al/Al2O3 and Cu/Al2O3 MMCs in aqueous conditions. Tribology International, 2005, 38, 995-1006.	3.0	7
68	Bridging the gap between tribology and corrosion: from wear maps to Pourbaix diagrams. International Materials Reviews, 2005, 50, 1-17.	9.4	53
69	Transitions in microabrasion mechanisms for WC-Co (HVOF) coated steel. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2005, 219, 49-57.	1.0	5
70	A generic model for dry sliding wear of metals at elevated temperatures. Wear, 2004, 256, 973-985.	1.5	112
71	Erosionâ€“corrosion of chromium steel in a rotating cylinder electrode system: some comments on particle size effects. Wear, 2004, 256, 557-564.	1.5	28
72	Erosionâ€“corrosion mapping of Fe in aqueous slurries: some views on a new rationale for defining the erosionâ€“corrosion interaction. Wear, 2004, 256, 565-576.	1.5	83

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73	Some comments on micro-abrasion interactions of pure metals in bio-oils. Journal of Synthetic Lubrication: Research, Development and Application of Synthetic Lubricants and Functional Fluids, 2004, 21, 105-118.	0.7	3
74	Modelling particulate erosionâ€“corrosion in aqueous slurries: some views on the construction of erosionâ€“corrosion maps for a range of pure metals. Wear, 2004, 256, 986-1004.	1.5	61
75	Mapping the micro-abrasion resistance of WC/Co based coatings in aqueous conditions. Surface and Coatings Technology, 2004, 183, 337-346.	2.2	24
76	Impact angle effects on the erosionâ€“corrosion of superlattice CrN/NbN PVD coatings. Surface and Coatings Technology, 2004, 188-189, 556-565.	2.2	32
77	There's something in the way you move. Physics World, 2004, 17, 24-25.	0.0	0
78	Micro-abrasion transitions of metallic materials. Wear, 2003, 255, 14-22.	1.5	54
79	Some thoughts on modelling the effects of oxygen and particle concentration on the erosionâ€“corrosion of steels in aqueous slurries. Wear, 2003, 255, 225-236.	1.5	36
80	Mapping sliding wear of steels in aqueous conditions. Wear, 2003, 255, 456-465.	1.5	49
81	Particulate erosionâ€“corrosion of Al in aqueous conditions: some perspectives on pH effects on the erosionâ€“corrosion map. Tribology International, 2002, 35, 651-660.	3.0	38
82	Modelling the tribo-corrosion interaction in aqueous sliding conditions. Tribology International, 2002, 35, 669-679.	3.0	171
83	Mapping tribo-corrosion processes in dry and in aqueous conditions: some new directions for the new millennium. Tribology International, 2002, 35, 681-689.	3.0	57
84	Title is missing!. Journal of Materials Science Letters, 2001, 20, 547-550.	0.5	2
85	Macroparticle induced corrosion for arc bond sputtering CrN/NbN superlattice coatings. Journal of Materials Science Letters, 2001, 20, 1995-1997.	0.5	6
86	Title is missing!. Journal of Applied Electrochemistry, 2001, 31, 1373-1379.	1.5	5
87	Mapping erosion of Niâ€“Cr/WC-based composites at elevated temperatures: some recent advances. Wear, 2001, 251, 1433-1443.	1.5	22
88	Corrosion behaviour and characterisation of iron in hot flowing Bayer liquors. Materials and Corrosion - Werkstoffe Und Korrosion, 2000, 51, 705-711.	0.8	2
89	The corrosion behaviour of macroparticle defects in arc bond-sputtered CrN/NbN superlattice coatings. Surface and Coatings Technology, 2000, 126, 279-287.	2.2	107
90	Wear associated with growth defects in combined cathodic arc/unbalanced magnetron sputtered CrN/NbN superlattice coatings during erosion in alkaline slurry. Surface and Coatings Technology, 2000, 135, 82-90.	2.2	24

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91	Title is missing!. Journal of Materials Science, 2000, 35, 5263-5273.	1.7	21
92	Slurry erosion of metallics, polymers, and ceramics: particle size effects. Materials Science and Technology, 1999, 15, 337-344.	0.8	41
93	The influence of low concentrations of chromium and yttrium on the oxidation behaviour, residual stress and corrosion performance of TiAlN hard coatings on steel substrates. Vacuum, 1999, 55, 109-114.	1.6	53
94	Impact angle effects on the transition boundaries of the aqueous erosionâ€“corrosion map. Wear, 1999, 225-229, 190-198.	1.5	22
95	Simplifying the erosionâ€“corrosion mechanism map for erosion of thin coatings in aqueous slurries. Wear, 1999, 233-235, 542-551.	1.5	14
96	Some recent advances in the development of theoretical approaches for the construction of erosionâ€“corrosion maps in aqueous conditions. Wear, 1999, 233-235, 535-541.	1.5	23
97	Looking beyond the millennium: critical issues in the evaluation of materials performance for resistance to erosive wear in corrosive conditions. Wear, 1999, 233-235, 484-496.	1.5	5
98	Particle size effects on the elevated temperature erosion behaviour of Niâ€“Cr/WC MMC-based coatings. Surface and Coatings Technology, 1999, 113, 5-12.	2.2	15
99	Some thoughts on the construction of erosionâ€“corrosion maps for PVD coated steels in aqueous environments. Surface and Coatings Technology, 1999, 113, 52-62.	2.2	7
100	In situ solid state electrochemical impedance spectroscopy of NiO scales. Solid State Ionics, 1999, 126, 363-372.	1.3	9
101	Title is missing!. Tribology Letters, 1999, 6, 23-36.	1.2	10
102	Some thoughts on the effect of elastic rebounds on the boundaries of the aqueous erosion-corrosion map. Wear, 1998, 214, 175-185.	1.5	26
103	A note on the construction of materials performance maps for resistance to erosion in aqueous slurries. Wear, 1998, 215, 67-76.	1.5	9
104	The role of triboparticulates in dry sliding wear. Tribology International, 1998, 31, 245-256.	3.0	227
105	Erosion of PVD TiN coatings under simultaneous corrosion in sodium carbonate/bicarbonate buffer slurries containing alumina particles. Surface and Coatings Technology, 1998, 106, 1-7.	2.2	12
106	Corrosion of PVD TiN coatings under simultaneous erosion in sodium carbonate/bicarbonate buffered slurries. Surface and Coatings Technology, 1998, 105, 141-146.	2.2	13
107	Optimizing the performance of materials in FBC conditions using erosion-corrosion wastage and materials performance maps. Materials at High Temperatures, 1997, 14, 313-324.	0.5	2
108	Characterization of wear scar surfaces using combined three-dimensional topographic analysis and contact resistance measurements. Tribology International, 1997, 30, 517-526.	3.0	15

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109	Some issues relating to the construction of materials selection maps for resistance to elevated temperature erosion. Tribology International, 1997, 30, 435-444.	3.0	7
110	A methodology for the construction of the erosion-corrosion map in aqueous environments. Wear, 1997, 203-204, 474-488.	1.5	55
111	Solid particle erosion of metal matrix composites at elevated temperatures: construction of erosion mechanism and process control maps. Wear, 1997, 203-204, 489-497.	1.5	26
112	The effect of partial pressure of oxygen on the tribological behaviour of a nickel-based alloy, N80A, at elevated temperatures. Wear, 1997, 203-204, 615-625.	1.5	38
113	Electrochemical studies of anodic dissolution of mild steel in a carbonate-bicarbonate buffer under erosion-corrosion conditions. Corrosion Science, 1996, 38, 1071-1084.	3.0	43
114	Characterization of Synergistic Effects Between Erosion and Corrosion in an Aqueous Environment Using Electrochemical Techniques. Corrosion, 1996, 52, 934-946.	0.5	79
115	Elevated temperature erosion of range of composite layers of Niâ€“Cr based functionally graded material. Materials Science and Technology, 1996, 12, 171-177.	0.8	11
116	Construction of erosionâ€“corrosion maps for erosion in aqueous slurries. Materials Science and Technology, 1996, 12, 662-672.	0.8	22
117	Effects of particle velocity and applied potential on erosion of mild steel in carbonate/bicarbonate slurry. Materials Science and Technology, 1996, 12, 261-268.	0.8	27
118	Erosion-corrosion Mapping in Dry and in Aqueous Environments: Review of Recent Developments. Zairyo To Kankyo/ Corrosion Engineering, 1996, 45, 551-559.	0.0	0
119	Erosion-corrosion regimes: number, nomenclature and justification?. Tribology International, 1995, 28, 445-451.	3.0	40
120	The erosion-corrosion of alloys under oxidizing-sulphidizing conditions at high temperature. Wear, 1995, 186-187, 291-298.	1.5	11
121	Relationship between the effects of velocity and alloy corrosion resistance in erosion-corrosion environments at elevated temperatures. Wear, 1995, 180, 91-99.	1.5	45
122	Interpretation of wastage mechanisms of materials exposed to elevated temperature erosion-corrosion using erosionâ€”corrosion maps and computer graphics. Wear, 1995, 186-187, 273-283.	1.5	24
123	Identification of transitions in erosion-corrosion regimes in aqueous environments. Wear, 1995, 186-187, 523-532.	1.5	57
124	A mathematical model for sliding wear of metals at elevated temperatures. Wear, 1995, 181-183, 20-31.	1.5	118
125	Computer simulation of erosion-corrosion interactions at elevated temperatures. Wear, 1995, 181-183, 516-523.	1.5	5
126	Synergism between effects of velocity, temperature, and alloy corrosion resistance in laboratory simulated fluidised bed environments. Materials Science and Technology, 1995, 11, 1180-1186.	0.8	14

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127	Some frictional features associated with the sliding wear of the nickel-base alloy N80A at temperatures to 250 Â°C. Wear, 1994, 176, 185-194.	1.5	113
128	Review of mechanisms of erosion-corrosion of alloys at elevated temperatures. Wear, 1993, 162-164, 706-712.	1.5	38
129	An approach to modelling erosion-corrosion of alloys using erosion-corrosion maps. Corrosion Science, 1993, 35, 1027-1034.	3.0	30
130	The effect of substrate hardness on the erosion-corrosion resistance of materials in low-velocity conditions. Corrosion Science, 1993, 35, 1045-1051.	3.0	23
131	Computer simulation of the effect of pre-oxidation in erosion-corrosion environments. Journal Physics D: Applied Physics, 1992, 25, A170-A176.	1.3	1
132	The effect of pre-oxidation of chromia and alumina forming alloys on erosion in laboratory simulated fluidized-bed conditions. Corrosion Science, 1992, 33, 965-983.	3.0	19
133	High temperature erosion of pre-oxidized and as received alloys: Effects of impact angle, temperature and hot hardness. Materials at High Temperatures, 1991, 9, 153-159.	0.5	8
134	Erosionâ€“corrosion of preoxidised Incoloy 800H in fluidised bed environments: effects of temperature, velocity, and exposure time. Materials Science and Technology, 1991, 7, 1128-1137.	0.8	30