Julian A Wharton

List of Publications by Year
in descending order

83	3,852	136950	128289
papers	citations	32 h-index	60 g-index

86	86	86	4047
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Marine biofilms on artificial surfaces: structure and dynamics. Environmental Microbiology, 2013, 15, 2879-2893.	3.8	341
2	The corrosion of nickelâ€“aluminium bronze in seawater. Corrosion Science, 2005, 47, 3336-3367.	6.6	239
3	Corrosion, erosion and erosionâ€“corrosion performance of plasma electrolytic oxidation (PEO) deposited Al2O3 coatings. Surface and Coatings Technology, 2005, 199, 158-167.	4.8	177
4	A review of the manufacture, mechanical properties and potential applications of auxetic foams. Physica Status Solidi (B): Basic Research, 2013, 250, 1963-1982.	1.5	166
5	Designing biomimetic antifouling surfaces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 4729-4754.	3.4	162
6	A review of experimental techniques to produce a nacre-like structure. Bioinspiration and Biomimetics, 2012, 7, 031001.	2.9	143
7	Pseudotumour Formation Due to Tribocorrosion at the Taper Interface of Large Diameter Metal on Polymer Modular Total Hip Replacements. Journal of Arthroplasty, 2013, 28, 1430-1436.	3.1	129
8	Micro-abrasionâ€“corrosion of a CoCrMo alloy in simulated artificial hip joint environments. Wear, 2005, 259, 898-909.	3.1	126
9	The influence of nickelâ€“aluminium bronze microstructure and crevice solution on the initiation of crevice corrosion. Electrochimica Acta, 2008, 53, 2463-2473.	5.2	120
10	Ultimate strength analysis of aged steel-plated structures exposed to marine corrosion damage: A review. Corrosion Science, 2014, 86, 42-60.	6.6	110
11	Erosion and erosionâ€“corrosion performance of cast and thermally sprayed nickelâ€“aluminium bronze. Wear, 2005, 259, 230-242.	3.1	104
12	Extracellular DNA Impedes the Transport of Vancomycin in Staphylococcus epidermidis Biofilms Preexposed to Subinhibitory Concentrations of Vancomycin. Antimicrobial Agents and Chemotherapy, 2014, 58, 7273-7282.	3.2	102
13	Solid particle erosionâ€“corrosion behaviour of a novel HVOF nickel aluminium bronze coating for marine applicationsâ€”correlation between mass loss and electrochemical measurements. Wear, 2005, 258, 629-640.	3.1	96
14	Influence of flow conditions on the corrosion of AISI 304L stainless steel. Wear, 2004, 256, 525-536.	3.1	92
15	Investigation of erosionâ€“corrosion processes using electrochemical noise measurements. Tribology International, 2002, 35, 631-641.	5.9	83
16	Influence of corrosion on the ultimate compressive strength of steel plates and stiffened panels. Thin-Walled Structures, 2015, 96, 95-104.	5.3	81
17	Effect of abrasive particle size and the influence of microstructure on the wear mechanisms in wear-resistant materials. Wear, 2012, 276-277, 16-28.	3.1	79
18	The corrosion behaviour of commercial purity titanium processed by high-pressure torsion. Journal of Materials Science, 2014, 49, 2824-2831.	3.7	79

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19	Review on the development of truly portable andin-situcapillary electrophoresis systems. Measurement Science and Technology, 2013, 24, 042001.	2.6	75
20	Synergistic effects of micro-abrasionâ€“corrosion of UNS S30403, S31603 and S32760 stainless steels. Wear, 2007, 263, 149-159.	3.1	74
21	Microabrasionâ€“corrosion of cast CoCrMo alloy in simulated body fluids. Tribology International, 2009, 42, 99-110.	5.9	72
22	Wavelet analysis of electrochemical noise measurements during corrosion of austenitic and superduplex stainless steels in chloride media. Corrosion Science, 2003, 45, 97-122.	6.6	65
23	Electro-mechanical interactions during erosionâ€“corrosion. Wear, 2009, 267, 1900-1908.	3.1	64
24	Electrochemical behaviour of nickelâ€“aluminium bronze in chloride media: Influence of pH and benzotriazole. Journal of Electroanalytical Chemistry, 2013, 695, 38-46.	3.8	61
25	Exposure effects of alkaline drilling fluid on the microscale abrasionâ€“corrosion of WC-based hardmetals. Wear, 2007, 263, 125-136.	3.1	58
26	Anti-Biofilm Performance of Three Natural Products against Initial Bacterial Attachment. International Journal of Molecular Sciences, 2013, 14, 21757-21780.	4.1	51
27	The rotating cylinder electrode for studies of corrosion engineering and protection of metalsâ€”An illustrated review. Corrosion Science, 2017, 123, 1-20.	6.6	47
28	Effects of laser shock peening on the mechanisms of fatigue short crack initiation and propagation of AA7075-T651. International Journal of Fatigue, 2021, 143, 106025.	5.7	47
29	Screen-printed potentiometric Ag/AgCl chloride sensors: Lifetime performance and their use in soil salt measurements. Sensors and Actuators A: Physical, 2011, 169, 288-294.	4.1	39
30	Exposure effects of strong alkaline conditions on the microscale abrasionâ€“corrosion of D-gun sprayed WCâ€“10Coâ€“4Cr coating. Tribology International, 2008, 41, 629-639.	5.9	37
31	Interpretation of electrochemical measurements made during micro-scale abrasion-corrosion. Tribology International, 2010, 43, 1218-1227.	5.9	36
32	Micro-abrasion mechanisms of cast CoCrMo in simulated body fluids. Wear, 2009, 267, 1845-1855.	3.1	35
33	The Preparation of Auxetic Foams by Threeâ€<scp>D</scp>imensional Printing and Their Characteristics. Advanced Engineering Materials, 2013, 15, 980-985.	3.5	35
34	Ultimate strength assessment of steel stiffened plate structures with grooving corrosion damage. Engineering Structures, 2015, 94, 29-42.	5.3	33
35	Mechano-electrochemical modelling of corroded steel structures. Engineering Structures, 2016, 128, 1-14.	5.3	33
36	Life under flow: A novel microfluidic device for the assessment of anti-biofilm technologies. Biomicrofluidics, 2013, 7, 64118.	2.4	31

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37	Investigation of micro-scale abrasionâ€“corrosion of WC-based sintered hardmetal and sprayed coating using in situ electrochemical current-noise measurements. Wear, 2009, 267, 1967-1977.	3.1	30
38	Abrasive size and concentration effects on the tribo-corrosion of cast CoCrMo alloy in simulated body fluids. Tribology International, 2009, 42, 1595-1604.	5.9	29
39	Further studies of the anodic dissolution in sodium chloride electrolyte of aluminium alloys containing tin and gallium. Journal of Power Sources, 2009, 193, 895-898.	7.8	29
40	An EXAFS investigation of molybdate-based conversion coatings. Journal of Applied Electrochemistry, 2003, 33, 553-561.	2.9	28
41	Microbial tribology and disruption of dental plaque bacterial biofilms. Wear, 2013, 306, 276-284.	3.1	27
42	Micro-abrasionâ€“corrosion of cast CoCrMoâ€”Effects of micron and sub-micron sized abrasives. Wear, 2009, 267, 52-60.	3.1	23
43	An experimental and computational study of the hydrodynamics of high-velocity water microdrops for interproximal tooth cleaning. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 148-157.	3.1	21
44	Nickel-ion detection on a boron-doped diamond electrode in acidic media. Electrochimica Acta, 2013, 88, 718-724.	5.2	19
45	Electrodeposition and tribological characterisation of nickel nanocomposite coatings reinforced with nanotubular titanates. Surface and Coatings Technology, 2010, 205, 1856-1863.	4.8	18
46	Electrochemical detection of cupric ions with boron-doped diamond electrode for marine corrosion monitoring. Electrochimica Acta, 2016, 202, 345-356.	5.2	18
47	Effect of dissolved oxygen and coupled resistance on the galvanic corrosion of Crâ€Ni lowâ€alloy steel/90â€10 cupronickel under simulated deep sea condition. Materials and Corrosion - Werkstoffe Und Korrosion, 2017, 68, 1123-1128.	1.5	18
48	Crevice Corrosion Studies Using Electrochemical Noise Measurements and a Scanning Electrode Technique. Journal of the Electrochemical Society, 2000, 147, 3294.	2.9	17
49	Analysis of nickelâ€“aluminium bronze crevice solution chemistry using capillary electrophoresis. Electrochemistry Communications, 2007, 9, 1035-1040.	4.7	17
50	Effects of proteins and pH on tribocorrosion performance of cast CoCrMo â€“ a combined electrochemical and tribological study. Tribology - Materials, Surfaces and Interfaces, 2008, 2, 150-160.	1.4	17
51	Surface potential effects on friction and abrasion of sliding contacts lubricated by aqueous solutions. Wear, 2009, 267, 1978-1986.	3.1	17
52	Techniques for the measurement of natural product incorporation into an antifouling coating. Progress in Organic Coatings, 2014, 77, 473-484.	3.9	17
53	Sensors for Corrosion Detection: Measurement of Copper Ions in 3.5% Sodium Chloride Using Screen-Printed Platinum Electrodes. IEEE Sensors Journal, 2012, 12, 2091-2099.	4.7	15
54	Influence of Localized Pit Distribution and Bench-Shaped Pits on the Ultimate Compressive Strength of Steel Plating for Shipping. Corrosion, 2014, 70, 915-927.	1.1	13

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55	Corrosion control: general discussion. Faraday Discussions, 2015, 180, 543-576.	3.2	12
56	Flow Corrosion Behavior of Austenitic Stainless Steels UNS S30403 and UNS S31603. Corrosion, 2005, 61, 792-806.	1.1	11
57	Micro- and Nano-scale Tribo-Corrosion of Cast CoCrMo. Tribology Letters, 2011, 41, 525-533.	2.6	10
58	Experimental and computation assessment of thermomechanical effects during auxetic foam fabrication. Scientific Reports, 2020, 10, 18301.	3.3	10
59	A â€˜3-bodyâ€™ abrasion wear study of bioceramics for total hip joint replacements. Wear, 2009, 267, 2122-2131.	3.1	9
60	Explicit fracture modelling of cemented tungsten carbide (WC-Co) at the mesoscale. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 521-530.	5.6	9
61	Miniaturized rotating disc rheometer test for rapid screening of drag reducing marine coatings. Surface Topography: Metrology and Properties, 2015, 3, 034004.	1.6	8
62	Mechano-electrochemistry effects due to deformation of copper oxide films. Faraday Discussions, 2015, 180, 137-149.	3.2	8
63	Assessing the performances of elastic-plastic buckling and shell-solid combination in finite element analysis on plated structures with and without idealised corrosion defects. Thin-Walled Structures, 2018, 127, 17-30.	5.3	8
64	Characterisation of Crevice and Pit Solution Chemistries Using Capillary Electrophoresis with Contactless Conductivity Detector. Materials, 2013, 6, 4345-4360.	2.9	7
65	Corrosion scales and passive films: general discussion. Faraday Discussions, 2015, 180, 205-232.	3.2	7
66	Biofilm Inhibition by Novel Natural Product- and Biocide-Containing Coatings Using High-Throughput Screening. International Journal of Molecular Sciences, 2018, 19, 1434.	4.1	7
67	Effects of Nickelâ€“Aluminum Bronze Pre-Oxidized Films on the Cathodic Kinetics of Oxygen Reduction. Analytical Letters, 2020, 53, 1218-1232.	1.8	7
68	Further studies into the flow corrosion cathodic mass transfer kinetics of copper and nickel-aluminium bronze wall-jet electrodes. Corrosion Science, 2020, 170, 108660.	6.6	6
69	Marine atmospheric corrosion of carbon steel in the tropical microclimate of Port Louis. Materials and Corrosion - Werkstoffe Und Korrosion, 2022, 73, 1474-1489.	1.5	5
70	Electrochemical sensing of aerobic marine bacterial biofilms and the influence of nitric oxide attachment control. Materials Research Society Symposia Proceedings, 2011, 1356, 80501.	0.1	4
71	Estimation of organic biocide leaching rate using a modified cavity jump diffusion model. Progress in Organic Coatings, 2014, 77, 1499-1505.	3.9	4
72	The impact of corrosion-stress interactions on the topological features and ultimate strength of large-scale steel structures. Thin-Walled Structures, 2020, 157, 107104.	5.3	4

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73	Electrochemical Sensing and Characterization of Aerobic Marine Bacterial Biofilms on Gold Electrode Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 31393-31405.	8.0	4
74	Galvanic Corrosion Performance of High-Strength Copper-Nickel Alloys in Seawater. Corrosion, 2009, 65, 359-367.	1.1	3
75	A rapid benchtop method to assess biofilm on marine fouling control coatings. Biofouling, 2021, 37, 452-464.	2.2	3
76	Tribocorrosion damage of a Jethete M152 type stainless steel. Engineering Failure Analysis, 2008, 15, 903-912.	4.0	2
77	Fluorescence microscopy techniques for quantitative evaluation of organic biocide distribution in antifouling paint coatings: application to model antifouling coatings. Biofouling, 2012, 28, 613-625.	2.2	2
78	In situ study of the deep sea electrochemical performance of aluminumâ€based galvanic anodes. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 1946-1956.	1.5	2
79	The effects of surface pits and intermetallics on the competing failure modes in laser shock peened AA7075-T651: Experiments and modelling. International Journal of Fatigue, 2022, 155, 106568.	5.7	2
80	A hybrid corrosion-structural model for simulating realistic corrosion topography of maritime structures. Thin-Walled Structures, 2021, 169, 108481.	5.3	1
81	Assessment of marine biofilm attachment and growth for antifouling surfaces under static and controlled hydrodynamic conditions. Materials Research Society Symposia Proceedings, 2011, 1356, 60601.	0.1	0
82	Modelling the Operational Limits of a Separation Enhancement Method for Capillary Electrophoresis: a Designer's Tool. Procedia Engineering, 2012, 47, 694-697.	1.2	0
83	Corrosion Prognosis: Maritime Structural Performances in Service Environments. , 2017, , .		0