

Julian A Wharton

List of Publications by Year in descending order

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83
papers

3,852
citations

136950

32
h-index

128289

60
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86
all docs

86
docs citations

86
times ranked

4047
citing authors

#	ARTICLE	IF	CITATIONS
1	The effects of surface pits and intermetallics on the competing failure modes in laser shock peened AA7075-T651: Experiments and modelling. <i>International Journal of Fatigue</i> , 2022, 155, 106568.	5.7	2
2	Marine atmospheric corrosion of carbon steel in the tropical microclimate of Port Louis. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2022, 73, 1474-1489.	1.5	5
3	Effects of laser shock peening on the mechanisms of fatigue short crack initiation and propagation of AA7075-T651. <i>International Journal of Fatigue</i> , 2021, 143, 106025.	5.7	47
4	A rapid benchtop method to assess biofilm on marine fouling control coatings. <i>Biofouling</i> , 2021, 37, 452-464.	2.2	3
5	Electrochemical Sensing and Characterization of Aerobic Marine Bacterial Biofilms on Gold Electrode Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 31393-31405.	8.0	4
6	A hybrid corrosion-structural model for simulating realistic corrosion topography of maritime structures. <i>Thin-Walled Structures</i> , 2021, 169, 108481.	5.3	1
7	Effects of Nickel-Aluminum Bronze Pre-Oxidized Films on the Cathodic Kinetics of Oxygen Reduction. <i>Analytical Letters</i> , 2020, 53, 1218-1232.	1.8	7
8	The impact of corrosion-stress interactions on the topological features and ultimate strength of large-scale steel structures. <i>Thin-Walled Structures</i> , 2020, 157, 107104.	5.3	4
9	In situ study of the deep sea electrochemical performance of aluminum-based galvanic anodes. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2020, 71, 1946-1956.	1.5	2
10	Experimental and computation assessment of thermomechanical effects during auxetic foam fabrication. <i>Scientific Reports</i> , 2020, 10, 18301.	3.3	10
11	Further studies into the flow corrosion cathodic mass transfer kinetics of copper and nickel-aluminium bronze wall-jet electrodes. <i>Corrosion Science</i> , 2020, 170, 108660.	6.6	6
12	Assessing the performances of elastic-plastic buckling and shell-solid combination in finite element analysis on plated structures with and without idealised corrosion defects. <i>Thin-Walled Structures</i> , 2018, 127, 17-30.	5.3	8
13	Explicit fracture modelling of cemented tungsten carbide (WC-Co) at the mesoscale. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 521-530.	5.6	9
14	Biofilm Inhibition by Novel Natural Product- and Biocide-Containing Coatings Using High-Throughput Screening. <i>International Journal of Molecular Sciences</i> , 2018, 19, 1434.	4.1	7
15	The rotating cylinder electrode for studies of corrosion engineering and protection of metals-An illustrated review. <i>Corrosion Science</i> , 2017, 123, 1-20.	6.6	47
16	Effect of dissolved oxygen and coupled resistance on the galvanic corrosion of Cr-Ni low alloy steel/90-10 cupronickel under simulated deep sea condition. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 1123-1128.	1.5	18
17	Corrosion Prognosis: Maritime Structural Performances in Service Environments. , 2017, , ,		0
18	Mechano-electrochemical modelling of corroded steel structures. <i>Engineering Structures</i> , 2016, 128, 1-14.	5.3	33

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19	Electrochemical detection of cupric ions with boron-doped diamond electrode for marine corrosion monitoring. <i>Electrochimica Acta</i> , 2016, 202, 345-356.	5.2	18
20	Miniaturized rotating disc rheometer test for rapid screening of drag reducing marine coatings. <i>Surface Topography: Metrology and Properties</i> , 2015, 3, 034004.	1.6	8
21	Mechano-electrochemistry effects due to deformation of copper oxide films. <i>Faraday Discussions</i> , 2015, 180, 137-149.	3.2	8
22	Corrosion scales and passive films: general discussion. <i>Faraday Discussions</i> , 2015, 180, 205-232.	3.2	7
23	An experimental and computational study of the hydrodynamics of high-velocity water microdrops for interproximal tooth cleaning. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 46, 148-157.	3.1	21
24	Corrosion control: general discussion. <i>Faraday Discussions</i> , 2015, 180, 543-576.	3.2	12
25	Ultimate strength assessment of steel stiffened plate structures with grooving corrosion damage. <i>Engineering Structures</i> , 2015, 94, 29-42.	5.3	33
26	Influence of corrosion on the ultimate compressive strength of steel plates and stiffened panels. <i>Thin-Walled Structures</i> , 2015, 96, 95-104.	5.3	81
27	Influence of Localized Pit Distribution and Bench-Shaped Pits on the Ultimate Compressive Strength of Steel Plating for Shipping. <i>Corrosion</i> , 2014, 70, 915-927.	1.1	13
28	The corrosion behaviour of commercial purity titanium processed by high-pressure torsion. <i>Journal of Materials Science</i> , 2014, 49, 2824-2831.	3.7	79
29	Ultimate strength analysis of aged steel-plated structures exposed to marine corrosion damage: A review. <i>Corrosion Science</i> , 2014, 86, 42-60.	6.6	110
30	Techniques for the measurement of natural product incorporation into an antifouling coating. <i>Progress in Organic Coatings</i> , 2014, 77, 473-484.	3.9	17
31	Extracellular DNA Impedes the Transport of Vancomycin in <i>Staphylococcus epidermidis</i> Biofilms Preexposed to Subinhibitory Concentrations of Vancomycin. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 7273-7282.	3.2	102
32	Estimation of organic biocide leaching rate using a modified cavity jump diffusion model. <i>Progress in Organic Coatings</i> , 2014, 77, 1499-1505.	3.9	4
33	Electrochemical behaviour of nickel-aluminium bronze in chloride media: Influence of pH and benzotriazole. <i>Journal of Electroanalytical Chemistry</i> , 2013, 695, 38-46.	3.8	61
34	Microbial tribology and disruption of dental plaque bacterial biofilms. <i>Wear</i> , 2013, 306, 276-284.	3.1	27
35	Marine biofilms on artificial surfaces: structure and dynamics. <i>Environmental Microbiology</i> , 2013, 15, 2879-2893.	3.8	341
36	Pseudotumour Formation Due to Tribocorrosion at the Taper Interface of Large Diameter Metal on Polymer Modular Total Hip Replacements. <i>Journal of Arthroplasty</i> , 2013, 28, 1430-1436.	3.1	129

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37	Nickel-ion detection on a boron-doped diamond electrode in acidic media. <i>Electrochimica Acta</i> , 2013, 88, 718-724.	5.2	19
38	A review of the manufacture, mechanical properties and potential applications of auxetic foams. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1963-1982.	1.5	166
39	Review on the development of truly portable and <i>in-situ</i> capillary electrophoresis systems. <i>Measurement Science and Technology</i> , 2013, 24, 042001.	2.6	75
40	The Preparation of Auxetic Foams by Three-dimensional Printing and Their Characteristics. <i>Advanced Engineering Materials</i> , 2013, 15, 980-985.	3.5	35
41	Characterisation of Crevice and Pit Solution Chemistries Using Capillary Electrophoresis with Contactless Conductivity Detector. <i>Materials</i> , 2013, 6, 4345-4360.	2.9	7
42	Anti-Biofilm Performance of Three Natural Products against Initial Bacterial Attachment. <i>International Journal of Molecular Sciences</i> , 2013, 14, 21757-21780.	4.1	51
43	Life under flow: A novel microfluidic device for the assessment of anti-biofilm technologies. <i>Biomicrofluidics</i> , 2013, 7, 64118.	2.4	31
44	Fluorescence microscopy techniques for quantitative evaluation of organic biocide distribution in antifouling paint coatings: application to model antifouling coatings. <i>Biofouling</i> , 2012, 28, 613-625.	2.2	2
45	A review of experimental techniques to produce a nacre-like structure. <i>Bioinspiration and Biomimetics</i> , 2012, 7, 031001.	2.9	143
46	Sensors for Corrosion Detection: Measurement of Copper Ions in 3.5% Sodium Chloride Using Screen-Printed Platinum Electrodes. <i>IEEE Sensors Journal</i> , 2012, 12, 2091-2099.	4.7	15
47	Modelling the Operational Limits of a Separation Enhancement Method for Capillary Electrophoresis: a Designer's Tool. <i>Procedia Engineering</i> , 2012, 47, 694-697.	1.2	0
48	Effect of abrasive particle size and the influence of microstructure on the wear mechanisms in wear-resistant materials. <i>Wear</i> , 2012, 276-277, 16-28.	3.1	79
49	Screen-printed potentiometric Ag/AgCl chloride sensors: Lifetime performance and their use in soil salt measurements. <i>Sensors and Actuators A: Physical</i> , 2011, 169, 288-294.	4.1	39
50	Micro- and Nano-scale Tribo-Corrosion of Cast CoCrMo. <i>Tribology Letters</i> , 2011, 41, 525-533.	2.6	10
51	Electrochemical sensing of aerobic marine bacterial biofilms and the influence of nitric oxide attachment control. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1356, 80501.	0.1	4
52	Assessment of marine biofilm attachment and growth for antifouling surfaces under static and controlled hydrodynamic conditions. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1356, 60601.	0.1	0
53	Interpretation of electrochemical measurements made during micro-scale abrasion-corrosion. <i>Tribology International</i> , 2010, 43, 1218-1227.	5.9	36
54	Electrodeposition and tribological characterisation of nickel nanocomposite coatings reinforced with nanotubular titanates. <i>Surface and Coatings Technology</i> , 2010, 205, 1856-1863.	4.8	18

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55	Designing biomimetic antifouling surfaces. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 4729-4754.	3.4	162
56	Microabrasionâ€“corrosion of cast CoCrMo alloy in simulated body fluids. <i>Tribology International</i> , 2009, 42, 99-110.	5.9	72
57	Abrasive size and concentration effects on the tribo-corrosion of cast CoCrMo alloy in simulated body fluids. <i>Tribology International</i> , 2009, 42, 1595-1604.	5.9	29
58	Micro-abrasionâ€“corrosion of cast CoCrMoâ€“Effects of micron and sub-micron sized abrasives. <i>Wear</i> , 2009, 267, 52-60.	3.1	23
59	Micro-abrasion mechanisms of cast CoCrMo in simulated body fluids. <i>Wear</i> , 2009, 267, 1845-1855.	3.1	35
60	Electro-mechanical interactions during erosionâ€“corrosion. <i>Wear</i> , 2009, 267, 1900-1908.	3.1	64
61	Investigation of micro-scale abrasionâ€“corrosion of WC-based sintered hardmetal and sprayed coating using in situ electrochemical current-noise measurements. <i>Wear</i> , 2009, 267, 1967-1977.	3.1	30
62	Surface potential effects on friction and abrasion of sliding contacts lubricated by aqueous solutions. <i>Wear</i> , 2009, 267, 1978-1986.	3.1	17
63	A 3-bodyâ€™ abrasion wear study of bioceramics for total hip joint replacements. <i>Wear</i> , 2009, 267, 2122-2131.	3.1	9
64	Further studies of the anodic dissolution in sodium chloride electrolyte of aluminium alloys containing tin and gallium. <i>Journal of Power Sources</i> , 2009, 193, 895-898.	7.8	29
65	Galvanic Corrosion Performance of High-Strength Copper-Nickel Alloys in Seawater. <i>Corrosion</i> , 2009, 65, 359-367.	1.1	3
66	The influence of nickelâ€“aluminium bronze microstructure and crevice solution on the initiation of crevice corrosion. <i>Electrochimica Acta</i> , 2008, 53, 2463-2473.	5.2	120
67	Exposure effects of strong alkaline conditions on the microscale abrasionâ€“corrosion of D-gun sprayed WCâ€“10Coâ€“4Cr coating. <i>Tribology International</i> , 2008, 41, 629-639.	5.9	37
68	Tribocorrosion damage of a Jethete M152 type stainless steel. <i>Engineering Failure Analysis</i> , 2008, 15, 903-912.	4.0	2
69	Effects of proteins and pH on tribocorrosion performance of cast CoCrMo â€“ a combined electrochemical and tribological study. <i>Tribology - Materials, Surfaces and Interfaces</i> , 2008, 2, 150-160.	1.4	17
70	Synergistic effects of micro-abrasionâ€“corrosion of UNS S30403, S31603 and S32760 stainless steels. <i>Wear</i> , 2007, 263, 149-159.	3.1	74
71	Analysis of nickelâ€“aluminium bronze crevice solution chemistry using capillary electrophoresis. <i>Electrochemistry Communications</i> , 2007, 9, 1035-1040.	4.7	17
72	Exposure effects of alkaline drilling fluid on the microscale abrasionâ€“corrosion of WC-based hardmetals. <i>Wear</i> , 2007, 263, 125-136.	3.1	58

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73	Solid particle erosionâ€corrosion behaviour of a novel HVOF nickel aluminium bronze coating for marine applicationsâ€correlation between mass loss and electrochemical measurements. <i>Wear</i> , 2005, 258, 629-640.	3.1	96
74	Erosion and erosionâ€corrosion performance of cast and thermally sprayed nickelâ€aluminium bronze. <i>Wear</i> , 2005, 259, 230-242.	3.1	104
75	Corrosion, erosion and erosionâ€corrosion performance of plasma electrolytic oxidation (PEO) deposited Al ₂ O ₃ coatings. <i>Surface and Coatings Technology</i> , 2005, 199, 158-167.	4.8	177
76	Micro-abrasionâ€corrosion of a CoCrMo alloy in simulated artificial hip joint environments. <i>Wear</i> , 2005, 259, 898-909.	3.1	126
77	Flow Corrosion Behavior of Austenitic Stainless Steels UNS S30403 and UNS S31603. <i>Corrosion</i> , 2005, 61, 792-806.	1.1	11
78	The corrosion of nickelâ€aluminium bronze in seawater. <i>Corrosion Science</i> , 2005, 47, 3336-3367.	6.6	239
79	Influence of flow conditions on the corrosion of AISI 304L stainless steel. <i>Wear</i> , 2004, 256, 525-536.	3.1	92
80	An EXAFS investigation of molybdate-based conversion coatings. <i>Journal of Applied Electrochemistry</i> , 2003, 33, 553-561.	2.9	28
81	Wavelet analysis of electrochemical noise measurements during corrosion of austenitic and superduplex stainless steels in chloride media. <i>Corrosion Science</i> , 2003, 45, 97-122.	6.6	65
82	Investigation of erosionâ€corrosion processes using electrochemical noise measurements. <i>Tribology International</i> , 2002, 35, 631-641.	5.9	83
83	Crevice Corrosion Studies Using Electrochemical Noise Measurements and a Scanning Electrode Technique. <i>Journal of the Electrochemical Society</i> , 2000, 147, 3294.	2.9	17