

Frank C Walsh

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/3530586/frank-c-walsh-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

129
papers

8,975
citations

47
h-index

93
g-index

138
ext. papers

10,305
ext. citations

5.1
avg, IF

6.62
L-index

#	Paper	IF	Citations
129	Carbon Materials as Positive Electrodes in Bromine-Based Flow Batteries.. <i>ChemPlusChem</i> , 2022 , 87, e202100441	2.8	4
128	Selection of oxygen reduction catalysts for secondary tri-electrode zinc-air batteries.. <i>Scientific Reports</i> , 2022 , 12, 6696	4.9	0
127	Supercapacitors for Short-term, High Power Energy Storage 2022 , 71-98		0
126	An Introduction to Electrochemistry in Modern Power Sources 2022 , 15-29		
125	Zen and electrochemical surface finishing of materials. <i>Transactions of the Institute of Metal Finishing</i> , 2021 , 99, 55-60	1.3	
124	Design, imaging and performance of 3D printed open-cell architectures for porous electrodes: quantification of surface area and permeability. <i>Journal of Chemical Technology and Biotechnology</i> , 2021 , 96, 1818-1831	3.5	1
123	Electrodeposited Hydroxyapatite-Based Biocoatings: Recent Progress and Future Challenges. <i>Coatings</i> , 2021 , 11, 110	2.9	26
122	Editors'ChoiceCritical ReviewThe Bipolar Trickle Tower Reactor: Concept, Development and Applications. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 023503	3.9	3
121	A nonaqueous organic redox flow battery using multi-electron quinone molecules. <i>Journal of Power Sources</i> , 2021 , 500, 229942	8.9	8
120	Electrodeposited Co-P alloy and composite coatings: A review of progress towards replacement of conventional hard chromium deposits. <i>Surface and Coatings Technology</i> , 2021 , 422, 127564	4.4	9
119	Development of electrodeposited multilayer coatings: A review of fabrication, microstructure, properties and applications. <i>Applied Surface Science Advances</i> , 2021 , 6, 100141	2.6	7
118	Towards improved electroplating of metal-particle composite coatings. <i>Transactions of the Institute of Metal Finishing</i> , 2020 , 98, 288-299	1.3	14
117	ReviewThe Design, Performance and Continuing Development of Electrochemical Reactors for Clean Electrosynthesis. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 155525	3.9	23
116	3D Hierarchically Structured CoS Nanosheets: Li Storage Mechanism and Application of the High-Performance Lithium-Ion Capacitors. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 3709-3718	9.5	45
115	The electrodeposition of composite coatings: Diversity, applications and challenges. <i>Current Opinion in Electrochemistry</i> , 2020 , 20, 8-19	7.2	47
114	Photocatalytic degradation of methylene blue dye on reticulated vitreous carbon decorated with electrophoretically deposited TiO ₂ nanotubes. <i>Diamond and Related Materials</i> , 2020 , 109, 108001	3.5	8
113	Experimental and computation assessment of thermomechanical effects during auxetic foam fabrication. <i>Scientific Reports</i> , 2020 , 10, 18301	4.9	4

112	Patterning of worm-like soft polydimethylsiloxane structures using a TiO ₂ nanotubular array. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 49795	2.9	0
111	Photoelectroanalytical Oxygen Detection with Titanate Nanosheet [Platinum Hybrids Immobilised into a Polymer of Intrinsic Microporosity (PIM-1). <i>Electroanalysis</i> , 2020 , 32, 2756-2763	3	4
110	Electrochemical synthesis of hydrogen peroxide from water and oxygen. <i>Nature Reviews Chemistry</i> , 2019 , 3, 442-458	34.6	235
109	Redox flow batteries for energy storage: their promise, achievements and challenges. <i>Current Opinion in Electrochemistry</i> , 2019 , 16, 117-126	7.2	56
108	Voltammetric characterisation of diferrocenylborinic acid in organic solution and in aqueous media when immobilised into a titanate nanosheet film. <i>Dalton Transactions</i> , 2019 , 48, 11200-11207	4.3	1
107	Extraction of hydrophobic analytes from organic solution into a titanate 2D-nanosheet host: Electroanalytical perspectives. <i>Analytica Chimica Acta: X</i> , 2019 , 1, 100001	2.2	3
106	A review of electrodeposited Ni-Co alloy and composite coatings: Microstructure, properties and applications. <i>Surface and Coatings Technology</i> , 2019 , 372, 463-498	4.4	89
105	Inhibition of Polyimide Photodegradation by Incorporation of Titanate Nanotubes into a Composite. <i>Journal of Polymers and the Environment</i> , 2019 , 27, 1505-1515	4.5	9
104	Developments in plane parallel flow channel cells. <i>Current Opinion in Electrochemistry</i> , 2019 , 16, 10-18	7.2	26
103	Processes associated with ionic current rectification at a 2D-titanate nanosheet deposit on a microhole poly(ethylene terephthalate) substrate. <i>Journal of Solid State Electrochemistry</i> , 2019 , 23, 1237-1248	2.6	10
102	Synthesis and Properties of Electrodeposited NiCo/WS ₂ Nanocomposite Coatings. <i>Coatings</i> , 2019 , 9, 148	2.9	6
101	Electrodeposition of NiP alloy coatings: A review. <i>Surface and Coatings Technology</i> , 2019 , 369, 198-220	4.4	56
100	Removal of methylene blue from aqueous solutions using an Fe ²⁺ catalyst and in-situ H ₂ O ₂ generated at gas diffusion cathodes. <i>Electrochimica Acta</i> , 2019 , 308, 45-53	6.7	18
99	Electrodeposition of Ni P composite coatings: A review. <i>Surface and Coatings Technology</i> , 2019 , 378, 1248-1263	4.4	22
98	Mass transport control of oxygen reduction at graphite felt with subsequent decolourisation of RB-5 dye in a parallel plate flow reactor. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019 , 104, 123-129	5.3	5
97	Polymer nanocomposites having a high filler content: synthesis, structures, properties, and applications. <i>Nanoscale</i> , 2019 , 11, 4653-4682	7.7	95
96	Three-dimensional porous metal electrodes: Fabrication, characterisation and use. <i>Current Opinion in Electrochemistry</i> , 2019 , 16, 1-9	7.2	30
95	Mass-Transfer Measurements at Porous 3D Pt-Ir/Ti Electrodes in a Direct Borohydride Fuel Cell. <i>Journal of the Electrochemical Society</i> , 2018 , 165, F198-F206	3.9	11

94	X-ray computed micro-tomography of reticulated vitreous carbon. <i>Carbon</i> , 2018 , 135, 85-94	10.4	14
93	The characteristics and performance of hybrid redox flow batteries with zinc negative electrodes for energy storage. <i>Renewable and Sustainable Energy Reviews</i> , 2018 , 90, 992-1016	16.2	51
92	Enhancement of antibacterial efficiency at silver electrodeposited on coconut shell activated carbon by modulating pulse frequency. <i>Journal of Solid State Electrochemistry</i> , 2018 , 22, 749-759	2.6	6
91	Pressure drop through platinized titanium porous electrodes for cerium-based redox flow batteries. <i>AIChE Journal</i> , 2018 , 64, 1135-1146	3.6	27
90	Effective particle dispersion via high-shear mixing of the electrolyte for electroplating a nickel-molybdenum disulphide composite. <i>Electrochimica Acta</i> , 2018 , 283, 568-577	6.7	25
89	Developments in soluble lead flow batteries and remaining challenges: An illustrated review. <i>Journal of Energy Storage</i> , 2018 , 15, 69-90	7.8	37
88	Electroanalysis in 2D-TiO ₂ Nanosheet Hosts: Electrolyte and Selectivity Effects in Ferroceneboronic Acid Saccharide Binding. <i>Electroanalysis</i> , 2018 , 30, 1303-1310	3	9
87	Developments in electrode design: structure, decoration and applications of electrodes for electrochemical technology. <i>Journal of Chemical Technology and Biotechnology</i> , 2018 , 93, 3073-3090	3.5	26
86	Quaternary aryl phosphonium salts as corrosion inhibitors for iron in HCl. <i>Journal of Alloys and Compounds</i> , 2018 , 765, 812-825	5.7	20
85	Engineering aspects of the design, construction and performance of modular redox flow batteries for energy storage. <i>Journal of Energy Storage</i> , 2017 , 11, 119-153	7.8	160
84	An electrodeposited Ni-P-WS ₂ coating with combined super-hydrophobicity and self-lubricating properties. <i>Electrochimica Acta</i> , 2017 , 245, 872-882	6.7	45
83	Recent developments in organic redox flow batteries: A critical review. <i>Journal of Power Sources</i> , 2017 , 360, 243-283	8.9	282
82	Insertion of nanostructured titanates into the pores of an anodised TiO ₂ nanotube array by mechanically stimulated electrophoretic deposition. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 3955-3967	7.1	10
81	3D-printed porous electrodes for advanced electrochemical flow reactors: A Ni/stainless steel electrode and its mass transport characteristics. <i>Electrochemistry Communications</i> , 2017 , 77, 133-137	5.1	64
80	Editors' Choice Electrodeposition of Platinum on Titanium Felt in a Rectangular Channel Flow Cell. <i>Journal of the Electrochemical Society</i> , 2017 , 164, D57-D66	3.9	24
79	Graphite felt as a versatile electrode material: Properties, reaction environment, performance and applications. <i>Electrochimica Acta</i> , 2017 , 258, 1115-1139	6.7	112
78	Characterisation of platinum electrodeposits on a titanium micromesh stack in a rectangular channel flow cell. <i>Electrochimica Acta</i> , 2017 , 247, 994-1005	6.7	13
77	Titanate nanotubes and nanosheets as a mechanical reinforcement of water-soluble polyamic acid: Experimental and theoretical studies. <i>Composites Part B: Engineering</i> , 2017 , 124, 54-63	10	18

76	Current distribution in a rectangular flow channel manufactured by 3-D printing. <i>AIChE Journal</i> , 2017 , 63, 1144-1151	3.6	7
75	Electrospinning of in situ and ex situ synthesized polyimide composites reinforced by titanate nanotubes. <i>Journal of Applied Polymer Science</i> , 2017 , 134,	2.9	12
74	The continued development of reticulated vitreous carbon as a versatile electrode material: Structure, properties and applications. <i>Electrochimica Acta</i> , 2016 , 215, 566-591	6.7	59
73	Mass transport and active area of porous Pt/Ti electrodes for the Zn-Ce redox flow battery determined from limiting current measurements. <i>Electrochimica Acta</i> , 2016 , 221, 154-166	6.7	39
72	A review of developments in the electrodeposition of tin. <i>Surface and Coatings Technology</i> , 2016 , 288, 79-94	4.4	49
71	A review of developments in the electrodeposition of tin-copper alloys. <i>Surface and Coatings Technology</i> , 2016 , 304, 246-262	4.4	51
70	Electrochemical redox processes involving soluble cerium species. <i>Electrochimica Acta</i> , 2016 , 205, 226-247	4.7	38
69	Composite, multilayer and three-dimensional substrate supported tin-based electrodeposits from methanesulphonic acid. <i>Transactions of the Institute of Metal Finishing</i> , 2016 , 94, 152-158	1.3	6
68	Self-lubricating Ni-P-MoS ₂ composite coatings. <i>Surface and Coatings Technology</i> , 2016 , 307, 926-934	4.4	69
67	The electrochemical reduction of Cr(VI) ions in acid solution at titanium and graphite electrodes. <i>Journal of Environmental Chemical Engineering</i> , 2016 , 4, 3610-3617	6.8	11
66	Frontispiece: The Development of Zn/Ce Hybrid Redox Flow Batteries for Energy Storage and Their Continuing Challenges. <i>ChemPlusChem</i> , 2015 , 80, n/a-n/a	2.8	1
65	A Review of the Iron/Air Secondary Battery for Energy Storage. <i>ChemPlusChem</i> , 2015 , 80, 323-335	2.8	129
64	The Development of Zn/Ce Hybrid Redox Flow Batteries for Energy Storage and Their Continuing Challenges. <i>ChemPlusChem</i> , 2015 , 80, 288-311	2.8	52
63	Three-dimensional graphene oxide/polypyrrole composite electrodes fabricated by one-step electrodeposition for high performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 14445-14457	13.14457	68
62	Materials and fabrication of electrode scaffolds for deposition of MnO ₂ and their true performance in supercapacitors. <i>Journal of Power Sources</i> , 2015 , 293, 657-674	8.9	75
61	Synthesis and characterization of M ₃ V ₂ O ₈ (M = Ni or Co) based nanostructures: a new family of high performance pseudocapacitive materials. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 4919	13	133
60	Versatile electrochemical coatings and surface layers from aqueous methanesulfonic acid. <i>Surface and Coatings Technology</i> , 2014 , 259, 676-697	4.4	62
59	Electrochemical Engineering and Cell Design 2014 , 95-111		4

58	Mathematical modelling of an enzymatic fuel cell with an air-breathing cathode. <i>Electrochimica Acta</i> , 2013 , 112, 386-393	6.7	12
57	The role of a tribofilm and wear debris in the tribological behaviour of nanocrystalline NiTiO ₂ electrodeposits. <i>Wear</i> , 2013 , 306, 296-303	3.5	41
56	The electrodeposition and characterisation of low-friction and wear-resistant Co-Ni-P coatings. <i>Surface and Coatings Technology</i> , 2013 , 235, 495-505	4.4	34
55	Electrically conductive coatings of nickel and polypyrrole/poly(2-methoxyaniline-5-sulfonic acid) on nylon Lycra [®] textiles. <i>Progress in Organic Coatings</i> , 2013 , 76, 1296-1301	4.8	22
54	Electrochemical approaches to the production of graphene flakes and their potential applications. <i>Carbon</i> , 2013 , 54, 1-21	10.4	253
53	Mass transfer to a nanostructured nickel electrodeposit of high surface area in a rectangular flow channel. <i>Electrochimica Acta</i> , 2013 , 90, 507-513	6.7	30
52	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	1.3	109
51	Morphological control of synthetic Ni ₃ Si ₂ O ₅ (OH) ₄ nanotubes in an alkaline hydrothermal environment. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 548-556	13	40
50	The Preparation of Auxetic Foams by Three-Dimensional Printing and Their Characteristics. <i>Advanced Engineering Materials</i> , 2013 , 15, n/a-n/a	3.5	14
49	The importance of key operational variables and electrolyte monitoring to the performance of an all vanadium redox flow battery. <i>Journal of Chemical Technology and Biotechnology</i> , 2013 , 88, 126-138	3.5	93
48	Progress in redox flow batteries, remaining challenges and their applications in energy storage. <i>RSC Advances</i> , 2012 , 2, 10125	3.7	660
47	The influence of operational parameters on the performance of an undivided zinc/berium flow battery. <i>Electrochimica Acta</i> , 2012 , 80, 7-14	6.7	38
46	Development of the all-vanadium redox flow battery for energy storage: a review of technological, financial and policy aspects. <i>International Journal of Energy Research</i> , 2012 , 36, 1105-1120	4.5	441
45	An undivided zinc/berium redox flow battery operating at room temperature (295 K). <i>Electrochemistry Communications</i> , 2011 , 13, 770-773	5.1	81
44	Improvements in direct borohydride fuel cells using three-dimensional electrodes. <i>Catalysis Today</i> , 2011 , 170, 148-154	5.3	24
43	Recent progress and continuing challenges in bio-fuel cells. Part I: enzymatic cells. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 3087-102	11.8	206
42	The preparation of PbO ₂ coatings on reticulated vitreous carbon for the electro-oxidation of organic pollutants. <i>Electrochimica Acta</i> , 2011 , 56, 5158-5165	6.7	73
41	Ce(III)/Ce(IV) in methanesulfonic acid as the positive half cell of a redox flow battery. <i>Electrochimica Acta</i> , 2011 , 56, 2145-2153	6.7	74

40	Zinc deposition and dissolution in methanesulfonic acid onto a carbon composite electrode as the negative electrode reactions in a hybrid redox flow battery. <i>Electrochimica Acta</i> , 2011 , 56, 6536-6546	6.7	103
39	Characterization of a zinc/mercury flow battery. <i>Journal of Power Sources</i> , 2011 , 196, 5174-5185	8.9	169
38	Metastable Nature of Titanate Nanotubes in an Alkaline Environment. <i>Crystal Growth and Design</i> , 2010 , 10, 4421-4427	3.5	61
37	Developments in the soluble lead-acid flow battery. <i>Journal of Applied Electrochemistry</i> , 2010 , 40, 955-965	6.5	72
36	Single-Walled Carbon Nanotube/Titanate Nanotube Composite Fibers. <i>Advanced Engineering Materials</i> , 2009 , 11, B55-B60	3.5	11
35	Elongated Titanate Nanostructures and Their Applications. <i>European Journal of Inorganic Chemistry</i> , 2009 , 2009, 977-997	2.3	189
34	Impedance spectroscopy studies of the dissolution of ferrous- and zinc-based materials in aqueous timber preservatives. <i>Journal of Applied Electrochemistry</i> , 2008 , 38, 1599-1607	2.6	12
33	The influence of a perfluorinated cationic surfactant on the electrodeposition of tin from a methanesulfonic acid bath. <i>Journal of Electroanalytical Chemistry</i> , 2008 , 615, 91-102	4.1	31
32	The use of electrolyte redox potential to monitor the Ce(IV)/Ce(III) couple. <i>Journal of Environmental Management</i> , 2008 , 88, 1417-25	7.9	25
31	The stability of an acidic tin methanesulfonate electrolyte in the presence of a hydroquinone antioxidant. <i>Electrochimica Acta</i> , 2008 , 53, 5280-5286	6.7	48
30	Characterization of the reaction environment in a filter-press redox flow reactor. <i>Electrochimica Acta</i> , 2007 , 52, 5815-5823	6.7	45
29	Electrolytic removal of cupric ions from dilute liquors using reticulated vitreous carbon cathodes. <i>Journal of Chemical Technology and Biotechnology</i> , 2007 , 55, 147-155	3.5	13
28	Kinetics of Alkali Metal Ion Exchange into Nanotubular and Nanofibrous Titanates. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 14644-14651	3.8	78
27	Redox flow cells for energy conversion. <i>Journal of Power Sources</i> , 2006 , 160, 716-732	8.9	872
26	Stability of Aqueous Suspensions of Titanate Nanotubes. <i>Chemistry of Materials</i> , 2006 , 18, 1124-1129	9.6	149
25	Enhanced mass transport to a reticulated vitreous carbon rotating cylinder electrode using jet flow. <i>Electrochimica Acta</i> , 2006 , 51, 2728-2736	6.7	10
24	Electrodeposition of composite coatings containing nanoparticles in a metal deposit. <i>Surface and Coatings Technology</i> , 2006 , 201, 371-383	4.4	625
23	Deposition of Pt, Pd, Ru and Au on the surfaces of titanate nanotubes. <i>Topics in Catalysis</i> , 2006 , 39, 151-160	10.0	121

22	The Rotating Cylinder Electrode (RCE) and its Application to the Electrodeposition of Metals. <i>Australian Journal of Chemistry</i> , 2005 , 58, 246	1.2	65
21	Electrochemical removal of metal ions from aqueous solution: a student workshop. <i>Journal of Environmental Monitoring</i> , 2005 , 7, 943-9		5
20	Mass transport in the rectangular channel of a filter-press electrolyzer (the FM01-LC reactor). <i>AIChE Journal</i> , 2005 , 51, 682-687	3.6	67
19	Electrochemical Corrosion Behaviour of 90/10 Cu/Ni Alloy in Chloride-Based Electrolytes. <i>Journal of Applied Electrochemistry</i> , 2004 , 34, 659-669	2.6	89
18	The effect of hydrothermal conditions on the mesoporous structure of TiO ₂ nanotubes. <i>Journal of Materials Chemistry</i> , 2004 , 14, 3370		635
17	The effect of operational parameters on the performance of a bipolar trickle tower reactor. <i>Journal of Chemical Technology and Biotechnology</i> , 2004 , 79, 954-960	3.5	5
16	Removal of cupric ions from acidic sulfate solution using reticulated vitreous carbon rotating cylinder electrodes. <i>Journal of Chemical Technology and Biotechnology</i> , 2004 , 79, 935-945	3.5	13
15	The application of reticulated vitreous carbon rotating cylinder electrodes to the removal of cadmium and copper ions from solution. <i>Journal of Chemical Technology and Biotechnology</i> , 2004 , 79, 946-953	3.5	13
14	Reticulated vitreous carbon as an electrode material. <i>Journal of Electroanalytical Chemistry</i> , 2004 , 561, 203-217	4.1	257
13	Research and Development Techniques 1: Potentiodynamic Studies of Copper Metal Deposition. <i>Transactions of the Institute of Metal Finishing</i> , 2003 , 81, B95-B100	1.3	7
12	Electrochemical Measurements of Electroless Nickel Coatings on Zincated Aluminium Substrates. <i>Transactions of the Institute of Metal Finishing</i> , 2000 , 78, 157-162	1.3	13
11	The Importance of Substrate Surface Condition in Controlling the Porosity of Electroless Nickel Deposits. <i>Transactions of the Institute of Metal Finishing</i> , 1998 , 76, 149-155	1.3	19
10	Consultancy in the Classroom: Using Industrial Chemistry in a Teaching Exercise. <i>Journal of Chemical Education</i> , 1997 , 74, 1426	2.4	3
9	The Comparative Performance of Batteries: The Lead-Acid and the Aluminum-Air Cells. <i>Journal of Chemical Education</i> , 1996 , 73, 811	2.4	2
8	Mass transport to reticulated vitreous carbon rotating cylinder electrodes. <i>Journal of Applied Electrochemistry</i> , 1995 , 25, 450	2.6	22
7	Cyclic Voltammetry at Metal Electrodes. <i>Transactions of the Institute of Metal Finishing</i> , 1995 , 73, 72-78	1.3	12
6	Synchrotron X-Ray Studies of Potentiostatically Formed Phosphate Layers on Steel. <i>Transactions of the Institute of Metal Finishing</i> , 1994 , 72, 63-65	1.3	3
5	Studies of three-dimensional electrodes in the FMO1-LC laboratory electrolyser. <i>Journal of Applied Electrochemistry</i> , 1994 , 24, 95	2.6	69

4	Silver Removal from an X-Ray Fixer Solution by means of a Potentiostatically-Controlled Rotating Cylinder Electrode. <i>Journal of Photographic Science</i> , 1994 , 42, 182-192		8
3	The Analysis of Metal Ions in Solution. <i>Transactions of the Institute of Metal Finishing</i> , 1993 , 71, 166-170	1.3	
2	pH Measurements. <i>Transactions of the Institute of Metal Finishing</i> , 1992 , 70, 148-151	1.3	2
1	Electrolytic Conductivity and its Measurement. <i>Transactions of the Institute of Metal Finishing</i> , 1992 , 70, 45-49	1.3	2