

Carmel B Breslin

List of Publications by Year in descending order

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108
papers

3,856
citations

126907

33
h-index

133252

59
g-index

109
all docs

109
docs citations

109
times ranked

3632
citing authors

#	ARTICLE	IF	CITATIONS
1	The corrosion protection afforded by rare earth conversion coatings applied to magnesium. <i>Corrosion Science</i> , 2000, 42, 275-288.	6.6	399
2	Electrochemical studies on the stability and corrosion resistance of titanium-based implant materials. <i>Biomaterials</i> , 2001, 22, 1531-1539.	11.4	290
3	The electrochemical synthesis of polypyrrole at a copper electrode: corrosion protection properties. <i>Electrochimica Acta</i> , 2002, 47, 4467-4476.	5.2	161
4	Recent Developments in Chitosan-Based Adsorbents for the Removal of Pollutants from Aqueous Environments. <i>Molecules</i> , 2021, 26, 594.	3.8	153
5	The electrochemical deposition of polyaniline at pure aluminium: electrochemical activity and corrosion protection properties. <i>Electrochimica Acta</i> , 2003, 48, 721-732.	5.2	120
6	Oxidation and photo-induced oxidation of glucose at a polyaniline film modified by copper particles. <i>Electrochimica Acta</i> , 2004, 49, 4497-4503.	5.2	111
7	Polypyrrole electrodeposited on copper from an aqueous phosphate solution: Corrosion protection properties. <i>Corrosion Science</i> , 2007, 49, 1765-1776.	6.6	101
8	Studies on the passivation of aluminium in chromate and molybdate solutions. <i>Corrosion Science</i> , 1994, 36, 1143-1154.	6.6	98
9	Surface engineering: corrosion protection using conducting polymers. <i>Materials & Design</i> , 2005, 26, 233-237.	5.1	96
10	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2001, 31, 509-516.	2.9	90
11	The selective detection of dopamine at a polypyrrole film doped with sulfonated β -cyclodextrins. <i>Sensors and Actuators B: Chemical</i> , 2010, 150, 498-504.	7.8	82
12	Photo-induced dissolution of zinc in alkaline solutions. <i>Electrochimica Acta</i> , 2000, 45, 1571-1579.	5.2	80
13	The electropolymerization of pyrrole at a CuNi electrode: corrosion protection properties. <i>Corrosion Science</i> , 2003, 45, 2837-2850.	6.6	67
14	Reduction of Cr(VI) at a Polyaniline Film: Influence of Film Thickness and Oxidation State. <i>Environmental Science & Technology</i> , 2004, 38, 4671-4676.	10.0	64
15	Corrosion protection of copper using polypyrrole electrosynthesised from a salicylate solution. <i>Corrosion Science</i> , 2012, 59, 179-185.	6.6	64
16	The activation of aluminium by indium ions in chloride, bromide and iodide solutions. <i>Corrosion Science</i> , 1993, 34, 327-341.	6.6	61
17	Activation of aluminium in halide solutions containing e^- activator ions TM . <i>Corrosion Science</i> , 1992, 33, 1161-1177.	6.6	56
18	Influence of uv light on the passive behaviour of SS316 TM effect of prior illumination. <i>Electrochimica Acta</i> , 1997, 42, 127-136.	5.2	55

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19	Electrochemical studies on single-crystal aluminium surfaces. <i>Electrochimica Acta</i> , 1998, 43, 1715-1720.	5.2	55
20	The electrochemical behaviour of aluminium activated by gallium in aqueous electrolytes. <i>Corrosion Science</i> , 1992, 33, 1735-1746.	6.6	54
21	The influence of UV light on the dissolution and passive behavior of copper-containing alloys in chloride solutions. <i>Electrochimica Acta</i> , 1998, 44, 643-651.	5.2	54
22	Polyaniline-coated iron: studies on the dissolution and electrochemical activity as a function of pH. <i>Surface and Coatings Technology</i> , 2005, 190, 264-270.	4.8	54
23	Photo-inhibition of pitting corrosion on types 304 and 316 stainless steels in chloride-containing solutions. <i>Electrochimica Acta</i> , 1997, 42, 137-144.	5.2	51
24	Sealing of Anodized Aluminum Alloys with Rare Earth Metal Salt Solutions. <i>Journal of the Electrochemical Society</i> , 1998, 145, 2792-2798.	2.9	51
25	Electrochemical detection of Cr(VI) with carbon nanotubes decorated with gold nanoparticles. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 195-205.	2.9	51
26	Stability of passive films formed on aluminium in aqueous halide solutions. <i>Corrosion Engineering Science and Technology</i> , 1991, 26, 255-259.	0.3	49
27	Electrochemical detection of glucose at physiological pH using gold nanoparticles deposited on carbon nanotubes. <i>Sensors and Actuators B: Chemical</i> , 2019, 282, 490-499.	7.8	49
28	Review "Two-Dimensional Titanium Carbide MXenes and Their Emerging Applications as Electrochemical Sensors. <i>Journal of the Electrochemical Society</i> , 2020, 167, 037514.	2.9	49
29	Activation of pure Al in an indium-containing electrolyte " an electrochemical noise and impedance study. <i>Corrosion Science</i> , 2000, 42, 1023-1039.	6.6	40
30	An investigation into the degradation of polyaniline films grown on iron from oxalic acid. <i>Synthetic Metals</i> , 2004, 144, 125-131.	3.9	40
31	Electrochemical Deposition of Hierarchical Micro/Nanostructures of Copper Hydroxysulfates on Polypyrrole~Polystyrene Sulfonate Films. <i>Journal of Physical Chemistry C</i> , 2011, 115, 8725-8734.	3.1	38
32	Electrochemical behaviour of aluminium in the presence of EDTA-containing chloride solutions. <i>Journal of Applied Electrochemistry</i> , 2000, 30, 675-683.	2.9	37
33	Enantioselective Detection of D- and L-Phenylalanine Using Optically Active Polyaniline. <i>Electroanalysis</i> , 2005, 17, 532-537.	2.9	34
34	Synthesis and Characterization of Pyrochlore-Type Praseodymium Stannate Nanoparticles: An Effective Electrocatalyst for Detection of Nitrofurazone Drug in Biological Samples. <i>Inorganic Chemistry</i> , 2021, 60, 2464-2476.	4.0	33
35	Surface modification of stainless steels: green technology for corrosion protection. <i>Surface and Coatings Technology</i> , 1997, 90, 224-228.	4.8	32
36	Graphene-Based Materials Immobilized within Chitosan: Applications as Adsorbents for the Removal of Aquatic Pollutants. <i>Materials</i> , 2021, 14, 3655.	2.9	31

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37	The removal of phosphates using electrocoagulation with Al-Mg anodes. <i>Journal of Electroanalytical Chemistry</i> , 2019, 846, 113161.	3.8	30
38	Reduction of hexavalent chromium at a polypyrrole-coated aluminium electrode: Synergistic interactions. <i>Journal of Applied Electrochemistry</i> , 2004, 34, 191-195.	2.9	29
39	Slow delivery of a nitrification inhibitor (dicyandiamide) to soil using a biodegradable hydrogel of chitosan. <i>Chemosphere</i> , 2013, 93, 2854-2858.	8.2	29
40	The electrochemical behaviour of stainless steels following surface modification in cerium-containing solutions. <i>Corrosion Science</i> , 1997, 39, 1061-1073.	6.6	28
41	Graphene-Modified Composites and Electrodes and Their Potential Applications in the Electro-Fenton Process. <i>Materials</i> , 2020, 13, 2254.	2.9	28
42	The electrochemical behaviour of Al-Zn-In and Al-Zn-Hg alloys in aqueous halide solutions. <i>Corrosion Science</i> , 1994, 36, 85-97.	6.6	27
43	Electrochemical Conversion of Copper-Based Hierarchical Micro/Nanostructures to Copper Metal Nanoparticles and Their Testing in Nitrate Sensing. <i>Electroanalysis</i> , 2011, 23, 2164-2173.	2.9	27
44	Simultaneous electrochemical detection of the catecholamines and ascorbic acid at PEDOT/S-CD modified gold electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2012, 667, 30-37.	3.8	26
45	Review of Recent Developments in the Formulation of Graphene-Based Coatings for the Corrosion Protection of Metals and Alloys. <i>Corrosion and Materials Degradation</i> , 2020, 1, 296-327.	2.4	26
46	Cyclodextrins as Supramolecular Recognition Systems: Applications in the Fabrication of Electrochemical Sensors. <i>Materials</i> , 2021, 14, 1668.	2.9	26
47	The synergistic interaction between indium and zinc in the activation of aluminium in aqueous electrolytes. <i>Corrosion Science</i> , 1994, 36, 231-240.	6.6	25
48	The Formation of Polypyrrole at Iron from 1-Butyl-3-methylimidazolium Hexafluorophosphate. <i>Journal of the Electrochemical Society</i> , 2005, 152, D6.	2.9	25
49	Scanning Kelvin probe analysis of the potential distribution under small drops of electrolyte. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 1998, 49, 569-575.	1.5	24
50	Formation of adherent polypyrrole coatings on Ti and Ti-6Al-4V alloy. <i>Synthetic Metals</i> , 2005, 148, 111-118.	3.9	24
51	The development of a novel urea sensor using polypyrrole. <i>Electrochimica Acta</i> , 2014, 145, 19-26.	5.2	24
52	Electrocoagulation using stainless steel anodes: Simultaneous removal of phosphates, Orange II and zinc ions. <i>Journal of Hazardous Materials</i> , 2019, 374, 152-158.	12.4	23
53	The effects of indium precipitates on the electrochemical dissolution of Al-In alloys. <i>Corrosion Science</i> , 1993, 34, 1099-1109.	6.6	22
54	Review of 2D Graphene and Graphene-Like Materials and Their Promising Applications in the Generation of Hydrogen Peroxide. <i>Journal of the Electrochemical Society</i> , 2020, 167, 126502.	2.9	20

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55	The influence of dichromate and cerium passivation treatments on the dissolution of coatings. <i>Corrosion Science</i> , 1997, 39, 1341-1350.	6.6	19
56	The selective electrochemical sensing of dopamine at a polypyrrole film doped with an anionic β -cyclodextrin. <i>Journal of Electroanalytical Chemistry</i> , 2019, 855, 113614.	3.8	19
57	Review "Recent Developments in the Applications of 2D Transition Metal Dichalcogenides as Electrocatalysts in the Generation of Hydrogen for Renewable Energy Conversion. <i>Journal of the Electrochemical Society</i> , 2022, 169, 064504.	2.9	19
58	A spectrophotometric and NMR study on the formation of an inclusion complex between dopamine and a sulfonated cyclodextrin host. <i>Journal of Electroanalytical Chemistry</i> , 2011, 661, 179-185.	3.8	18
59	Polypyrrole doped with dodecylbenzene sulfonate as a protective coating for copper. <i>Electrochimica Acta</i> , 2018, 291, 362-372.	5.2	18
60	Electrocoagulation using aluminium anodes activated with Mg, In and Zn alloying elements. <i>Journal of Hazardous Materials</i> , 2019, 366, 39-45.	12.4	18
61	The corrosion/dissolution behaviour of aluminium in solutions containing both chloride and fluoride ions. <i>Corrosion Science</i> , 1993, 34, 1495-1507.	6.6	16
62	Electrochemical Deposition of Hollow N-Substituted Polypyrrole Microtubes from an Acoustically Formed Emulsion. <i>Macromolecules</i> , 2013, 46, 1008-1016.	4.8	15
63	Amendment of cattle slurry with the nitrification inhibitor dicyandiamide during storage: A new effective and practical N ₂ O mitigation measure for landspreading. <i>Agriculture, Ecosystems and Environment</i> , 2016, 215, 68-75.	5.3	15
64	Electrochemical formation of silver nanoparticles and their applications in the reduction and detection of nitrates at neutral pH. <i>Journal of Applied Electrochemistry</i> , 2020, 50, 125-138.	2.9	15
65	The development of a highly sensitive urea sensor due to the formation of an inclusion complex between urea and sulfonated- β -cyclodextrin. <i>Electrochimica Acta</i> , 2014, 125, 250-257.	5.2	14
66	The activation of aluminium by activator elements. <i>Corrosion Science</i> , 1993, 35, 197-203.	6.6	13
67	Corrosion Protection Properties Afforded by an In Situ Electropolymerized Polypyrrole Layer on CuZn. <i>Journal of the Electrochemical Society</i> , 2003, 150, B540.	2.9	13
68	Electrochemical Fabrication of Copper-Based Hybrid Microstructures and Mechanism of Formation of Related Hierarchical Structures on Polypyrrole Films. <i>Journal of Physical Chemistry C</i> , 2011, 115, 20076-20083.	3.1	13
69	Formation of polypyrrole with dexamethasone as a dopant: Its cation and anion exchange properties. <i>Journal of Electroanalytical Chemistry</i> , 2018, 824, 188-194.	3.8	13
70	Heterostructures of mixed metal oxides (ZnMnO ₃ /ZnO) synthesized by a wet-chemical approach and their application for the electrochemical detection of the drug chlorpromazine. <i>Composites Part B: Engineering</i> , 2022, 236, 109822.	12.0	13
71	Remediation of chromium(VI) at polypyrrole-coated titanium. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 1251-1257.	2.9	12
72	Complexation study and spectrofluorometric determination of the binding constant for diquat and p-sulfonatocalix[4]arene. <i>Tetrahedron</i> , 2012, 68, 3815-3821.	1.9	12

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73	The incorporation of drug molecules with poor water solubility into polypyrrole as dopants: Indomethacin and sulindac. <i>Electrochimica Acta</i> , 2019, 296, 848-855.	5.2	12
74	Electrodeposition of Zinc Hydroxysulfate Nanosheets and Reduction to Zinc Metal Microdendrites on Polypyrrole Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 338-349.	0.9	11
75	Electrocatalytic Studies of Coral-Shaped Samarium Stannate Nanoparticles for Selective Detection of Azathioprine in Biological Samples. <i>ACS Applied Nano Materials</i> , 2021, 4, 13048-13059.	5.0	11
76	The electrochemical behaviour of CuZn under conditions of illumination. <i>Electrochimica Acta</i> , 2000, 45, 4015-4023.	5.2	10
77	Facile template-free electrochemical preparation of poly[N-(2-cyanoethyl)pyrrole] nanowires. <i>Electrochemistry Communications</i> , 2012, 20, 79-82.	4.7	9
78	Electrochemistry of viologens at polypyrrole doped with sulfonated β -cyclodextrin. <i>Journal of Electroanalytical Chemistry</i> , 2019, 832, 399-407.	3.8	9
79	Physiological monitoring of tissue pH: In vitro characterisation and in vivo validation of a quinone-modified carbon paste electrode. <i>Electrochimica Acta</i> , 2019, 298, 484-495.	5.2	9
80	The Influence of Ultraviolet Illumination on the Passive Behavior of Zinc. <i>Journal of the Electrochemical Society</i> , 2000, 147, 1401.	2.9	8
81	Preparation and Antimicrobial Properties of Alginate and Serum Albumin/Glutaraldehyde Hydrogels Impregnated with Silver(I) Ions. <i>Chemistry</i> , 2021, 3, 672-686.	2.2	8
82	Emerging Layered Materials and Their Applications in the Corrosion Protection of Metals and Alloys. <i>Sustainability</i> , 2022, 14, 4079.	3.2	8
83	Electrochemical Characterisation of Polypyrrole Doped with β -Sulfonatocalix[4]arene. <i>Electroanalysis</i> , 2012, 24, 293-302.	2.9	7
84	Influence of Rare-Earth Metal Passivation Treatments on the Dissolution of Tin-Zinc Coatings. <i>Corrosion</i> , 1998, 54, 964-971.	1.1	6
85	An electrochemical study in aqueous solutions on the binding of dopamine to a sulfonated cyclodextrin host. <i>Electrochimica Acta</i> , 2012, 59, 290-295.	5.2	6
86	The effect of dopant pKa and the solubility of corresponding acid on the electropolymerisation of pyrrole. <i>Electrochimica Acta</i> , 2013, 92, 276-284.	5.2	6
87	The incorporation and controlled release of dopamine from a sulfonated β -cyclodextrin-doped conducting polymer. <i>Journal of Polymer Research</i> , 2019, 26, 1.	2.4	6
88	Fabrication of a Selective Sensor Amplification Probe Modified with Multi-Component Zn ₂ SnO ₄ /SnO ₂ Heterostructured Microparticles as a Robust Electrocatalyst for Electrochemical Detection of Antibacterial Drug Secnidazole. <i>Materials</i> , 2021, 14, 6700.	2.9	6
89	The aqueous deposition of a pH sensitive quinone on carbon paste electrodes using linear sweep voltammetry. <i>Journal of Electroanalytical Chemistry</i> , 2018, 828, 137-143.	3.8	5
90	Electrochemical determination of acetaminophen at a carbon electrode modified in the presence of β -cyclodextrin: role of the activated glassy carbon and the electropolymerised β -cyclodextrin. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 2599-2609.	2.5	5

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91	The Influence of Carbon Nanotubes on the Protective Properties of Polypyrrole Formed at Copper. <i>Materials</i> , 2019, 12, 2587.	2.9	4
92	Investigation of the Electrochemical Behaviour of MWCNTs in the Detection of Cr(VI). <i>ECS Transactions</i> , 2012, 41, 1-7.	0.5	3
93	The formation and properties of polypyrrole doped with an immobile antibiotic. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 2031-2042.	2.5	3
94	Studies on the formation and properties of polypyrrole doped with ionised β -cyclodextrins: influence of the anionic pendants. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 615-626.	2.5	3
95	Electrochemical formation of silver nanoparticles and their catalytic activity immobilised in a hydrogel matrix. <i>Colloid and Polymer Science</i> , 2020, 298, 549-558.	2.1	3
96	The Electrochemical Detection of 4-chloro-2-methylphenoxyacetic Acid (MCPA) Using a Simple Activated Glassy Carbon Electrode. <i>Journal of the Electrochemical Society</i> , 2022, 169, 037514.	2.9	3
97	Electrochemical formation of Na ⁺ -substituted polypyrrole nanowires, microwires and open microtubes and their decoration with copper structures. <i>Synthetic Metals</i> , 2021, 280, 116881.	3.9	2
98	An Electrochemical Study of Bulk and Nanowire Morphologies of Electrodeposited Polypyrrole. <i>ECS Transactions</i> , 2014, 58, 51-58.	0.5	1
99	Evaluating the ability of energy dispersive X-ray analysis to monitor binding oil content of carbon paste electrodes exposed to biofouling agents. <i>Journal of Electroanalytical Chemistry</i> , 2019, 847, 113237.	3.8	1
100	Electrostatic interactions between viologens and a sulfated β -cyclodextrin; formation of insoluble aggregates with benzyl viologens. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2020, 96, 155-167.	1.6	1
101	Formation of benzyl viologen-containing films at copper and their protective properties. <i>Electrochimica Acta</i> , 2020, 342, 136071.	5.2	1
102	Electrocoagulation for the Effective Removal of Pollutants. <i>ECS Meeting Abstracts</i> , 2012, , .	0.0	1
103	An efficient MSX [±] technique for the study of large clusters. <i>Computational and Theoretical Chemistry</i> , 1995, 331, 139-145.	1.5	0
104	Electronic Structures of Aluminum and Aluminum Clusters Doped with Other Atoms. <i>Journal of the Electrochemical Society</i> , 1997, 144, L217-L218.	2.9	0
105	Electrochemical Sensing of Dopamine Using a Dodecylsulfate Doped Polypyrrole Film. <i>ECS Transactions</i> , 2012, 41, 15-21.	0.5	0
106	Non-Enzymatic Selective Detection of Glucose Based on a Gold Nanoparticle- Carbon Nanotube Composite Film. <i>ECS Transactions</i> , 2014, 58, 59-65.	0.5	0
107	The Incorporation of Bovine Serum Albumin into a Polypyrrole Film in One Simple Step. <i>ECS Transactions</i> , 2014, 58, 1-13.	0.5	0
108	Application of Carbon Modified Materials in the Detection of Cr(VI). <i>ECS Meeting Abstracts</i> , 2011, , .	0.0	0