

Daniel A Buttry

List of Publications by Year in descending order

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77
papers

6,222
citations

81743

39
h-index

71532

76
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78
all docs

78
docs citations

78
times ranked

5779
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of interfacial processes at electrode surfaces with the electrochemical quartz crystal microbalance. <i>Chemical Reviews</i> , 1992, 92, 1355-1379.	23.0	1,295
2	Determination of ion populations and solvent content as functions of redox state and pH in polyaniline. <i>Journal of the American Chemical Society</i> , 1987, 109, 3574-3581.	6.6	509
3	Effects of electron exchange and single-file diffusion on charge propagation in Nafion films containing redox couples. <i>Journal of the American Chemical Society</i> , 1983, 105, 685-689.	6.6	279
4	Electrochemical quartz crystal microbalance studies of adsorption and desorption of self-assembled monolayers of alkyl thiols on gold. <i>Journal of the American Chemical Society</i> , 1993, 115, 12391-12397.	6.6	268
5	Electrochemical applications of the quartz crystal microbalance. <i>Analytical Chemistry</i> , 1989, 61, 1147A-1154A.	3.2	256
6	Stable silicon-ionic liquid interface for next-generation lithium-ion batteries. <i>Nature Communications</i> , 2015, 6, 6230.	5.8	212
7	New strategies for electrocatalysis at polymer-coated electrodes. Reduction of dioxygen by cobalt porphyrins immobilized in Nafion coatings on graphite electrodes. <i>Journal of the American Chemical Society</i> , 1984, 106, 59-64.	6.6	169
8	Electrochemical control of the luminescent lifetime of Ru(bpy) ₃ ²⁺ incorporated in Nafion films on graphite electrodes. <i>Journal of the American Chemical Society</i> , 1982, 104, 4824-4829.	6.6	141
9	Comparison of Oxygen Reduction Reaction at Silver Nanoparticles and Polycrystalline Silver Electrodes in Alkaline Solution. <i>Journal of Physical Chemistry C</i> , 2012, 116, 10656-10663.	1.5	137
10	Liquid Thermoelectrics: Review of Recent And Limited New Data of Thermogalvanic Cell Experiments. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2013, 17, 304-323.	1.4	137
11	Ionic interactions play a major role in determining the electrochemical behavior of self-assembling viologen monolayers. <i>Langmuir</i> , 1990, 6, 1319-1322.	1.6	132
12	Environmental effects on redox potentials of viologen groups embedded in electroactive self-assembled monolayers. <i>Langmuir</i> , 1992, 8, 2491-2496.	1.6	117
13	Designer Ionic Liquids for Reversible Electrochemical Deposition/Dissolution of Magnesium. <i>Journal of the American Chemical Society</i> , 2016, 138, 641-650.	6.6	115
14	Recent advances in electrochemical DNA hybridization sensors. <i>Analyst</i> , 2010, 135, 1817.	1.7	105
15	Electrochemical Capture and Release of Carbon Dioxide. <i>ACS Energy Letters</i> , 2017, 2, 454-461.	8.8	100
16	Mass measurements using isotopically labeled solvents reveal the extent of solvent transport during redox in thin films on electrodes. <i>Journal of the American Chemical Society</i> , 1988, 110, 6258-6260.	6.6	97
17	NMR Characterization of Phosphonic Acid Capped SnO ₂ Nanoparticles. <i>Chemistry of Materials</i> , 2007, 19, 2519-2526.	3.2	92
18	Dimerized π -Complexes in Self-Assembled Monolayers Containing Viologens: An Origin of Unusual Wave Shapes in the Voltammetry of Monolayers. <i>Langmuir</i> , 1996, 12, 5921-5933.	1.6	91

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19	EQCM studies of film growth, redox cycling, and charge trapping of n-doped and p-doped poly(thiophene). <i>Chemistry of Materials</i> , 1991, 3, 872-878.	3.2	89
20	Dimercaptanâ€Polyaniline Cathodes for Lithium Batteries: Addition of a Polypyrrole Derivative for Rapid Charging. <i>Journal of the Electrochemical Society</i> , 1995, 142, L182-L184.	1.3	85
21	Ionic interactions in electroactive self-assembled monolayers of ferrocene species. <i>Langmuir</i> , 1991, 7, 2196-2202.	1.6	79
22	Determination of Mg ²⁺ Speciation in a TFSI ⁻ -Based Ionic Liquid With and Without Chelating Ethers Using Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2015, 119, 7003-7014.	1.2	79
23	The amplifying effect of natural convection on power generation of thermogalvanic cells. <i>International Journal of Heat and Mass Transfer</i> , 2014, 78, 423-434.	2.5	70
24	Immobilization of amines at carbon fiber surfaces. <i>Carbon</i> , 1999, 37, 1929-1940.	5.4	69
25	Electrochemical Capture and Release of Carbon Dioxide Using a Disulfideâ€Thiocarbonate Redox Cycle. <i>Journal of the American Chemical Society</i> , 2017, 139, 1033-1036.	6.6	67
26	A SECM Study of Heterogeneous Redox Activity at AA2024 Surfaces. <i>Journal of the Electrochemical Society</i> , 2003, 150, B413.	1.3	65
27	NMR Characterization of Ligand Binding and Exchange Dynamics in Triphenylphosphine-Capped Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2009, 113, 16387-16393.	1.5	65
28	Oxygen Reduction Reaction in Ionic Liquids: The Addition of Protic Species. <i>Journal of Physical Chemistry C</i> , 2013, 117, 8683-8690.	1.5	64
29	A Vibrational Spectroscopic Study of the Structure of Electroactive Self-Assembled Monolayers of Viologen Derivatives. <i>Langmuir</i> , 1994, 10, 2235-2240.	1.6	63
30	Lithium Electroinsertion into an Inorganic-Organic Hybrid Material Composed from V ₂ O ₅ and Polyaniline. <i>Journal of the Electrochemical Society</i> , 2002, 149, A546.	1.3	59
31	Atomistic insights into dislocation-based mechanisms of void growth and coalescence. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 1858-1871.	2.3	57
32	Electrochemical Solid-State Phase Transformations of Silver Nanoparticles. <i>Journal of the American Chemical Society</i> , 2012, 134, 5610-5617.	6.6	57
33	New Organicâ€Inorganic Nanocomposite Materials for Energy Storage Applications. <i>Langmuir</i> , 1999, 15, 669-673.	1.6	55
34	Reversible Electrochemical Trapping of Carbon Dioxide Using 4,4'-Bipyridine That Does Not Require Thermal Activation. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4943-4946.	2.1	54
35	Adsorption and micellization influence the electrochemistry of redox surfactants derived from ferrocene. <i>Langmuir</i> , 1989, 5, 671-678.	1.6	53
36	Mechanism of Action of Corrosion Protection Coating for AA2024-T3 Based on Poly(aniline)-Poly(methylmethacrylate) Blend. <i>Journal of the Electrochemical Society</i> , 2005, 152, B45.	1.3	47

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37	Electrochemical and Raman studies on a hybrid organic-inorganic nanocomposite of vanadium oxide and a sulfonated polyaniline. <i>Electrochimica Acta</i> , 2001, 46, 3555-3562.	2.6	44
38	Electrochemical and Spectroscopic Investigation of the Influence of Acid-Base Chemistry on the Redox Properties of 2,5-Dimercapto-1,3,4-thiadiazole. <i>Journal of Physical Chemistry B</i> , 1997, 101, 2861-2866.	1.2	43
39	Chemical and Electrochemical Characterization of a Novel Nanocomposite Formed from V ₂ O ₅ and Poly(N-propane sulfonic acid aniline), a Self-Doped Polyaniline. <i>Journal of the Electrochemical Society</i> , 2000, 147, 2437.	1.3	41
40	Organosulfur/Conducting Polymer Composite Cathodes. <i>Journal of the Electrochemical Society</i> , 2002, 149, A939.	1.3	39
41	Size-Dependent Underpotential Deposition of Copper on Palladium Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2015, 119, 16927-16933.	1.5	37
42	Redox surfactants are chemical probes of electrode surface functionalization derived from disulfide immobilization on gold. <i>Langmuir</i> , 1991, 7, 380-388.	1.6	35
43	An Investigation of the Effect of Pyridine Derivatives on the Oxidative Polymerization Process of 2,5-Dimercapto-1,3,4-thiadiazole and Its Disulfide Dimer. <i>Journal of Physical Chemistry B</i> , 1998, 102, 1444-1449.	1.2	35
44	EQCM measurements of solvent transport during Li ⁺ intercalation in V ₂ O ₅ xerogel films. <i>Electrochimica Acta</i> , 2000, 45, 3757-3764.	2.6	33
45	Study of charge compensation during the redox process of self-doped polyaniline in aqueous media. <i>Journal of the Brazilian Chemical Society</i> , 2000, 11, 32.	0.6	31
46	Electrocatalysis of Anodic Oxygen Transfer Reactions: Application of an Electrochemical Quartz Crystal Microbalance to a Study of Pure and Bismuth-Doped Beta-Lead Dioxide Film Electrodes. <i>Journal of the Electrochemical Society</i> , 1990, 137, 3071-3078.	1.3	30
47	Comparison of V ₂ O ₅ Xerogels Prepared by the Vanadate and Alkoxide Routes Using X-Ray Absorption and other Methods. <i>Journal of the Electrochemical Society</i> , 2003, 150, A721.	1.3	30
48	Electrochemical Polymerization and Depolymerization of 2,5-Dimercapto-1,3,4-thiadiazole. QCM and Spectroscopic Analysis. <i>Journal of Physical Chemistry B</i> , 1997, 101, 7556-7562.	1.2	28
49	Spectroscopic identification of 2,5-dimercapto-1,3,4-thiadiazole and its lithium salt and dimer forms. <i>Journal of Power Sources</i> , 1997, 68, 739-742.	4.0	27
50	Electrochemical Synthesis of Yttrium Oxide Nanotubes. <i>Chemistry of Materials</i> , 2006, 18, 4541-4543.	3.2	26
51	Electrochemical/Piezoelectric Dual-Response Biosensor for Heme Ligands. <i>Analytical Chemistry</i> , 1997, 69, 887-893.	3.2	25
52	Electrochemical Detection of DNA Hybridization via Bis-Intercalation of a Naphthylimide-Functionalized Viologen Dimer. <i>Analytical Chemistry</i> , 2007, 79, 6922-6926.	3.2	23
53	A Mechanistic Study of the Influence of Proton Transfer Processes on the Behavior of Thiol/Disulfide Redox Couples. <i>Journal of Physical Chemistry B</i> , 1999, 103, 2239-2247.	1.2	22
54	Measurement of electric fields at rough metal surfaces by electrochromism of fluorescent probe molecules embedded in self-assembled monolayers. <i>Journal of the American Chemical Society</i> , 1992, 114, 10085-10086.	6.6	20

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55	Development and evaluation of surface treatments to enhance the fiber-matrix adhesion in PAN-based carbon fiber/liquid crystal polymer composites. Part I: Coupling agent and amine surface treatments. <i>Polymer Composites</i> , 1993, 14, 292-300.	2.3	19
56	Visualization of Cathode Activity for Fe-Rich and Cu-Rich Intermetallic Particles via Cathodic Corrosion from Dioxygen Reduction at Aluminum Alloy 2024-T3. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, B1.	2.2	19
57	Characterization of Mismatched DNA Hybridization via a Redox-Active Diviologen Bound in the PNA ⁺ DNA Minor Groove. <i>Langmuir</i> , 2009, 25, 3839-3844.	1.6	19
58	Size-Dependent Anodic Dissolution of Water-Soluble Palladium Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2013, 117, 26783-26789.	1.5	19
59	Control of access to surfaces with self-assembling surfactants bearing fluorocarbon chains. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1994, 84, 129-140.	2.3	18
60	Mixed Cation and Anion Transport during Redox Cycling of a Self-Doped Polyaniline Derivative in Nonaqueous Media. <i>Journal of the Electrochemical Society</i> , 2000, 147, 4217.	1.3	18
61	Minor Groove Binding of a Novel Tetracationic Diviologen. <i>Langmuir</i> , 2006, 22, 10821-10829.	1.6	18
62	Sensors Based on Biomolecules Immobilized on the Piezoelectric Quartz Crystal Microbalance. <i>ACS Symposium Series</i> , 1989, , 237-246.	0.5	13
63	Anodic oxidation of pitch-precursor carbon fibers in ammonium sulfate solutions: Batch screening treatment results. <i>Composites Science and Technology</i> , 1992, 44, 351-359.	3.8	10
64	Characterization of Zr(IV)-Phosphonate Thin Films Which Inhibit O ₂ Reduction on AA2024-T3. <i>Journal of the Electrochemical Society</i> , 2009, 156, C322.	1.3	9
65	Repassivation behaviour of stressed aluminium electrodes in aqueous chloride solutions. <i>Corrosion Science</i> , 2012, 54, 10-16.	3.0	9
66	Influence of Halide Ions on Anodic Oxidation of Ethanol on Palladium. <i>Electrocatalysis</i> , 2016, 7, 201-206.	1.5	8
67	Improving Seebeck coefficient of thermoelectrochemical cells by controlling ligand complexation at metal redox centers. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	7
68	Dioxygen Reduction Affects Surface Oxide Growth and Dissolution on AA2024-T3. <i>Journal of the Electrochemical Society</i> , 2007, 154, C458.	1.3	6
69	Experimental, Simulation, and Computational Study of the Interaction of Reduced Forms of N ⁺ -Methyl-4,4'-Bipyridinium with CO ₂ . <i>ChemElectroChem</i> , 2020, 7, 469-475.	1.7	6
70	An Electrochemical and Fourier Transform Infrared Spectroscopic Study of the Aqueous Oxidation of Quadricyclane and Nortricyclanol. <i>Journal of the Electrochemical Society</i> , 2000, 147, 266.	1.3	5
71	Direct evidence of redox mediation between a poly(aniline-co-N-propanesulfonic acid aniline) and 2,5-dimercapto-1,3,4-thiadiazole by UV-visible reflectance spectroscopy. <i>Journal of the Brazilian Chemical Society</i> , 2002, 13, 449.	0.6	5
72	Electrochemistry of ATP-capped silver nanoparticles in layer-by-layer multilayer films. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	0.8	5

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73	Electrochemical Cycling of Polycrystalline Silver Nanoparticles Produces Single-Crystal Silver Nanocrystals. <i>Langmuir</i> , 2017, 33, 13490-13495.	1.6	4
74	High Surface Area Silica Particles as a New Vehicle for Ligand Immobilization on the Quartz Crystal Microbalance. <i>ACS Symposium Series</i> , 1994, , 71-77.	0.5	3
75	Transient modeling of electrochemically assisted CO2 capture and release. <i>Journal of Electroanalytical Chemistry</i> , 2017, 799, 156-166.	1.9	3
76	INHIBITION OF O2 REDUCTION ON INTERMETALLIC PARTICLES AT THE SURFACE OF AA2024 BY ADSORBED PHOSPHONATES. <i>Corrosion Reviews</i> , 2007, 25, 545-554.	1.0	1
77	<i>Response</i> : Acoustic Chemical Sensors. <i>Science</i> , 1991, 251, 1372-1372.	6.0	0