Debbie S Silvester

List of Publications by Year in Descending Order

94 papers	3,391 citations	28 h-index	56 g-index
100 ext. papers	3,722 ext. citations	4.8 avg, IF	5.62 L-index

#	Paper	IF	Citations
94	Ionic liquid/poly(ionic liquid) membranes as non-flowing, conductive materials for electrochemical gas sensing.. *Analytica Chimica Acta*, **2022**, 1195, 339414	6.6	2
93	Comparison of Hydrothermally-Grown vs Electrodeposited Cobalt Sulfide Nanostructures as Modified Electrodes for Oxygen Evolution and Electrochemical Sensing Applications. *Journal of the Electrochemical Society*, **2022**, 169, 056505	3.9	
92	Ionic liquid Gel Polymer Electrolytes for Flexible Supercapacitors: Challenges and Prospects. *Current Opinion in Electrochemistry*, **2022**, 101046	7.2	1
91	Emerging Ionic Polymers for CO2 Conversion to Cyclic Carbonates: An Overview of Recent Developments*. *Australian Journal of Chemistry*, **2021**,	1.2	3
90	Experimental Evidence of Long-Lived Electric Fields of Ionic Liquid Bilayers. *Journal of the American Chemical Society*, **2021**, 143, 17431-17440	16.4	7
89	Nanostructure, electrochemistry and potential-dependent lubricity of the catanionic surface-active ionic liquid [P] [AOT]. *Journal of Colloid and Interface Science*, **2021**, 608, 2120-2130	9.3	0
88	Electrical Double Layer Structure in Ionic Liquids and Its Importance for Supercapacitor, Battery, Sensing, and Lubrication Applications. *Journal of Physical Chemistry C*, **2021**, 125, 13707-13720	3.8	13
87	Effect of microelectrode array spacing on the growth of platinum electrodeposits and its implications for oxygen sensing in ionic liquids. *Electrochimica Acta*, **2021**, 384, 138412	6.7	1
86	Diverse morphologies of zinc oxide nanoparticles and their electrocatalytic performance in hydrogen production. *Journal of Energy Chemistry*, **2021**, 56, 162-170	12	7
85	Highly efficient re-cycle/generation of LiCoO cathode assisted by 2-naphthalenesulfonic acid. *Journal of Hazardous Materials*, **2021**, 416, 126114	12.8	7
84	Liquid Alloying Na-K for Sodium Metal Anodes. *Journal of Physical Chemistry Letters*, **2021**, 12, 9321-9327	6.4	2
83	Zinc Oxide Nanoparticles as Antifouling Materials for the Electrochemical Detection of Methylparaben. *ChemElectroChem*, **2021**, 8, 187-194	4.3	4
82	A methodology to detect explosive residues using a gelled ionic liquid based field-deployable electrochemical device. *Journal of Electroanalytical Chemistry*, **2020**, 872, 114046	4.1	6
81	Thin films of poly(vinylidene fluoride-co-hexafluoropropylene)-ionic liquid mixtures as amperometric gas sensing materials for oxygen and ammonia. *Analyst, The*, **2020**, 145, 1915-1924	5	9
80	Electrodeposited Metal Organic Framework toward Excellent Hydrogen Sensing in an Ionic Liquid. *ACS Applied Nano Materials*, **2020**, 3, 4376-4385	5.6	11
79	Detection of sulfur dioxide at low parts-per-million concentrations using low-cost planar electrodes with ionic liquid electrolytes. *Analytica Chimica Acta*, **2020**, 1124, 156-165	6.6	5
78	Effect of Humidity and Impurities on the Electrochemical Window of Ionic Liquids and Its Implications for Electroanalysis. *Journal of Physical Chemistry C*, **2020**, 124, 20309-20319	3.8	10

77	Phase-Controllable Cobalt Phosphides Induced through Hydrogel for Higher Lithium Storages. *Inorganic Chemistry*, **2020**, 59, 6471-6480	5.1	2
76	Formation of 3-Dimensional Gold, Copper and Palladium Microelectrode Arrays for Enhanced Electrochemical Sensing Applications. *Nanomaterials*, **2019**, 9,	5.4	7
75	Fast responding hydrogen gas sensors using platinum nanoparticle modified microchannels and ionic liquids. *Analytica Chimica Acta*, **2019**, 1072, 35-45	6.6	23
74	New innovations in ionic liquid based miniaturised amperometric gas sensors. *Current Opinion in Electrochemistry*, **2019**, 15, 7-17	7.2	22
73	Effect of Ionic Liquid Structure on the Oxygen Reduction Reaction Under Humidified Conditions. *Journal of Physical Chemistry C*, **2019**, 123, 10727-10737	3.8	7
72	Molten metal closo-borate solvates. *Chemical Communications*, **2019**, 55, 3410-3413	5.8	7
71	Ionophore-Assisted Electrochemistry of Neutral Molecules: Oxidation of Hydrogen in an Ionic Liquid Electrolyte. *Journal of Physical Chemistry Letters*, **2019**, 10, 6910-6914	6.4	1
70	Ionic Liquid-based Microchannels for Highly Sensitive and Fast Amperometric Detection of Toxic Gases. *Electroanalysis*, **2019**, 31, 66-74	3	7
69	Interrogation of the Effect of Polymorphism of a Metal-Organic Framework Host on the Structure of Embedded Pd Guest Nanoparticles. *ChemPhysChem*, **2019**, 20, 745-751	3.2	3
68	Electrochemical Detection of Explosive Compounds in an Ionic Liquid in Mixed Environments: Influence of Oxygen, Moisture, and Other Nitroaromatics on the Sensing Response. *Australian Journal of Chemistry*, **2019**, 72, 122	1.2	6
67	Preparation of platinum-based 'cauliflower microarrays' for enhanced ammonia gas sensing. *Analytica Chimica Acta*, **2019**, 1048, 12-21	6.6	11
66	Electrochemical Synthesis of Highly Ordered Porous Al Scaffolds Melt-Infiltrated with LiBH4for Hydrogen Storage. *Journal of the Electrochemical Society*, **2018**, 165, D37-D42	3.9	8
65	A lithium iron phosphate reference electrode for ionic liquid electrolytes. *Electrochemistry Communications*, **2018**, 93, 148-151	5.1	19
64	Macroporous platinum electrodes for hydrogen oxidation in ionic liquids. *Electrochemistry Communications*, **2018**, 86, 43-47	5.1	9
63	Comparison of Voltammetric Techniques for Ammonia Sensing in Ionic Liquids. *Electroanalysis*, **2018**, 30, 75-83	3	19
62	Modification of Microelectrode Arrays with High Surface Area Dendritic Platinum 3D Structures: Enhanced Sensitivity for Oxygen Detection in Ionic Liquids. *Nanomaterials*, **2018**, 8,	5.4	8
61	Electrochemical Reduction of 2,4-Dinitrotoluene in Room Temperature Ionic Liquids: A Mechanistic Investigation. *Australian Journal of Chemistry*, **2018**, 71, 818	1.2	7
60	Detection of 2,4,6-Trinitrotoluene Using a Miniaturized, Disposable Electrochemical Sensor with an Ionic Liquid Gel-Polymer Electrolyte Film. *Analytical Chemistry*, **2017**, 89, 4729-4736	7.8	36

59	Recent developments in the electrochemical detection of explosives: Towards field-deployable devices for forensic science. *TrAC - Trends in Analytical Chemistry*, **2017**, 97, 374-384	14.6	45
58	Screen-Printed Graphite Electrodes as Low-Cost Devices for Oxygen Gas Detection in Room-Temperature Ionic Liquids. *Sensors*, **2017**, 17,	3.8	12
57	Mechanical polishing as an improved surface treatment for platinum screen-printed electrodes. *Sensing and Bio-Sensing Research*, **2016**, 9, 38-44	3.3	28
56	Electrochemical studies of hydrogen chloride gas in several room temperature ionic liquids: mechanism and sensing. *Physical Chemistry Chemical Physics*, **2016**, 18, 2488-94	3.6	11
55	Detection of sub-ppm Concentrations of Ammonia in an Ionic Liquid: Enhanced Current Density Using "Filled" Recessed Microarrays. *Analytical Chemistry*, **2016**, 88, 12453-12460	7.8	21
54	Electroreduction of 2,4,6-Trinitrotoluene in Room Temperature Ionic Liquids: Evidence of an EC2 Mechanism. *Journal of Physical Chemistry C*, **2016**, 120, 10997-11005	3.8	16
53	Low-cost microarray thin-film electrodes with ionic liquid gel-polymer electrolytes for miniaturised oxygen sensing. *Analyst, The*, **2016**, 141, 3705-13	5	19
52	Achievement of Prolonged Oxygen Detection in Room-Temperature Ionic Liquids on Mechanically Polished Platinum Screen-Printed Electrodes. *Analytical Chemistry*, **2016**, 88, 5104-11	7.8	25
51	Electrochemical Behavior of Chlorine on Platinum Microdisk and Screen-Printed Electrodes in a Room Temperature Ionic Liquid. *Journal of Physical Chemistry C*, **2015**, 119, 23572-23579	3.8	19
50	Void-Assisted Ion-Paired Proton Transfer at Water□onic Liquid Interfaces. *Angewandte Chemie*, **2015**, 127, 15116-15119	3.6	1
49	Void-Assisted Ion-Paired Proton Transfer at Water-Ionic Liquid Interfaces. *Angewandte Chemie - International Edition*, **2015**, 54, 14903-6	16.4	7
48	Sensors for highly toxic gases: methylamine and hydrogen chloride detection at low concentrations in an ionic liquid on Pt screen printed electrodes. *Sensors*, **2015**, 15, 26866-76	3.8	16
47	Towards improving the robustness of electrochemical gas sensors: impact of PMMA addition on the sensing of oxygen in an ionic liquid. *Analytical Methods*, **2015**, 7, 7327-7335	3.2	28
46	Chapter 10:Electrochemical Detection Using Ionic Liquids. *RSC Detection Science*, **2015**, 341-386	0.4	2
45	Electrochemical Oxidation and Sensing of Methylamine Gas in Room Temperature Ionic Liquids. *Journal of Physical Chemistry C*, **2014**, 118, 19232-19237	3.8	19
44	Electrochemical Characterization of an Oleyl-coated Magnetite Nanoparticle-Modified Electrode. *ChemElectroChem*, **2014**, 1, 1211-1218	4.3	19
43	One-step assembly of Re(I) tricarbonyl 2-pyridyltetrazolato metallacalix[3]arene with aqua emission and reversible three-electron oxidation. *Dalton Transactions*, **2013**, 42, 8188-91	4.3	17
42	Oxygen reduction voltammetry on platinum macrodisk and screen-printed electrodes in ionic liquids: Reaction of the electrogenerated superoxide species with compounds used in the paste of Pt screen-printed electrodes?. *Electrochimica Acta*, **2013**, 101, 158-168	6.7	47

41	Chronoamperometric response at nanoscale liquid|liquid interface arrays. *Electrochimica Acta*, **2013**, 101, 177-185	6.7	20
40	Ligand-Induced Structural, Photophysical, and Electrochemical Variations in Tricarbonyl Rhenium(I) Tetrazolato Complexes. *Organometallics*, **2013**, 32, 3728-3737	3.8	26
39	Synthesis, Photophysical and Electrochemical Investigation of Dinuclear Tetrazolato-Bridged Rhenium Complexes. *Organometallics*, **2012**, 31, 7566-7578	3.8	28
38	Redox Properties of a Rhenium Tetrazolato Complex in Room Temperature Ionic Liquids: Assessing the Applicability of the Stokes–Einstein Equation for a Metal Complex in Ionic Liquids. *Journal of Physical Chemistry C*, **2012**, 116, 7327-7333	3.8	19
37	Behavior of lysozyme at the electrified water/room temperature ionic liquid interface. *Chemistry - an Asian Journal*, **2012**, 7, 2559-61	4.5	6
36	Comparative study of screen printed electrodes for ammonia gas sensing in ionic liquids. *Electrochemistry Communications*, **2011**, 13, 1435-1438	5.1	44
35	Recent advances in the use of ionic liquids for electrochemical sensing. *Analyst, The*, **2011**, 136, 4871-82	5	199
34	Array of water|room temperature ionic liquid micro-interfaces. *Electrochemistry Communications*, **2011**, 13, 477-479	5.1	25
33	Synchrotron radiation/Fourier transform-infrared microspectroscopy study of undesirable water inclusions in solid-contact polymeric ion-selective electrodes. *Analytical Chemistry*, **2010**, 82, 6203-7	7.8	27
32	Voltammetry in room temperature ionic liquids: comparisons and contrasts with conventional electrochemical solvents. *Chemistry - an Asian Journal*, **2010**, 5, 202-30	4.5	259
31	Assessing ion-exchange properties and purity of lipophilic electrolytes by potentiometry and spectrophotometry. *Electrochemistry Communications*, **2010**, 12, 110-113	5.1	3
30	Potentiometric determination of coextraction constants of potassium salts in ion-selective electrodes utilizing a nitrobenzene liquid membrane phase. *Analytica Chimica Acta*, **2010**, 683, 92-5	6.6	2
29	Measuring the solubility of benzoic acid in room temperature ionic liquids using chronoamperometric techniques. *Journal of Physical Organic Chemistry*, **2009**, 22, 69-76	2.1	10
28	Voltammetric Characterization of the Ferrocene|Ferrocenium and Cobaltocenium|Cobaltocene Redox Couples in RTILs. *Journal of Physical Chemistry C*, **2008**, 112, 2729-2735	3.8	210
27	Effect of Water on the Electrochemical Window and Potential Limits of Room-Temperature Ionic Liquids. *Journal of Chemical & Engineering Data*, **2008**, 53, 2884-2891	2.8	421
26	Electrooxidation of the Iodides [C4mim]I, LiI, NaI, KI, RbI, and CsI in the Room Temperature Ionic Liquid [C4mim][NTf2]. *Journal of Physical Chemistry C*, **2008**, 112, 6551-6557	3.8	45
25	Oxidation of Several p-Phenylenediamines in Room Temperature Ionic Liquids: Estimation of Transport and Electrode Kinetic Parameters. *Journal of Physical Chemistry C*, **2008**, 112, 6993-7000	3.8	29
24	Electroreduction of Sulfur Dioxide in Some Room-Temperature Ionic Liquids. *Journal of Physical Chemistry C*, **2008**, 112, 3398-3404	3.8	42

23	The Electrochemical Reduction of Hydrogen Sulfide on Platinum in Several Room Temperature Ionic Liquids. *Journal of Physical Chemistry C*, **2008**, 112, 7725-7730	3.8	40
22	Electrochemical Reduction of Benzoic Acid and Substituted Benzoic Acids in Some Room Temperature Ionic Liquids. *Journal of Physical Chemistry C*, **2008**, 112, 12966-12973	3.8	34
21	Electroreduction of Chlorine Gas at Platinum Electrodes in Several Room Temperature Ionic Liquids: Evidence of Strong Adsorption on the Electrode Surface Revealed by Unusual Voltammetry in Which Currents Decrease with Increasing Voltage Scan Rates. *Journal of Physical Chemistry C*, **2008**, 112, 19477-19483	3.8	23
20	The electrochemistry of simple inorganic molecules in room temperature ionic liquids. *Journal of the Brazilian Chemical Society*, **2008**, 19, 611-620	1.5	30
19	The electrochemical oxidation of hydrogen at activated platinum electrodes in room temperature ionic liquids as solvents. *Journal of Electroanalytical Chemistry*, **2008**, 618, 53-60	4.1	73
18	Direct electrochemistry of horseradish peroxidase immobilized in a chitosan-[C4mim][BF4] film: determination of electrode kinetic parameters. *Bioelectrochemistry*, **2008**, 74, 183-7	5.6	23
17	Using XPS to determine solute solubility in room temperature ionic liquids. *Analyst, The*, **2007**, 132, 196-8	3	42
16	The electrochemical oxidation and reduction of nitrate ions in the room temperature ionic liquid [C2mim][NTf2]; the latter behaves as a 'melt' rather than an 'organic solvent' *New Journal of Chemistry*, **2007**, 31, 966-972	3.6	19
15	Voltammetric Studies of Gold, Protons, and [HCl2]- in Ionic Liquids. *Journal of Physical Chemistry C*, **2007**, 111, 8496-8503	3.8	59
14	Mechanistic Studies of the Electro-oxidation Pathway of Ammonia in Several Room-Temperature Ionic Liquids. *Journal of Physical Chemistry C*, **2007**, 111, 9562-9572	3.8	38
13	Electrochemical oxidation of nitrite and the oxidation and reduction of NO2 in the room temperature ionic liquid [C2mim][NTf2]. *Journal of Physical Chemistry B*, **2007**, 111, 7778-85	3.4	63
12	Electrochemical Kinetics of Ag|Ag+ and TMPD|TMPD+ in the Room-Temperature Ionic Liquid [C4mpyrr][NTf2]; toward Optimizing Reference Electrodes for Voltammetry in RTILs. *Journal of Physical Chemistry C*, **2007**, 111, 13957-13966	3.8	59
11	An electrochemical study of the oxidation of hydrogen at platinum electrodes in several room temperature ionic liquids. *Journal of Physical Chemistry B*, **2007**, 111, 5000-7	3.4	95
10	Electrode Kinetic Studies of the Hydroquinone–Benzoquinone System and the Reaction between Hydroquinone and Ammonia in Propylene Carbonate: Application to the Indirect Electroanalytical Sensing of Ammonia. *Journal of Physical Chemistry C*, **2007**, 111, 1496-1504	3.8	50
9	Coulometry on the Voltammetric Timescale: Microdisk Potential-Step Chronoamperometry in Aprotic Solvents Reliably Measures the Number of Electrons Transferred in an Electrode Process Simultaneously with the Diffusion Coefficients of the Electroactive Species. *Electroanalysis*, **2007**, 19, 11-22	3	39
8	Electrochemical Ammonia Gas Sensing in Nonaqueous Systems: A Comparison of Propylene Carbonate with Room Temperature Ionic Liquids. *Electroanalysis*, **2007**, 19, 2194-2201	3	40
7	The Electrochemistry of Vitamin B12 in Ionic Liquids and Its Use in the Electrocatalytic Reduction of Vicinal Dibromoalkanes. *Electroanalysis*, **2006**, 18, 2263-2268	3	13
6	Electrochemistry in Room Temperature Ionic Liquids: A Review and Some Possible Applications. *Zeitschrift Fur Physikalische Chemie*, **2006**, 220, 1247-1274	3.1	261

5	Electrochemical studies of gold and chloride in ionic liquids. *New Journal of Chemistry*, **2006**, 30, 1576-1582	3.3	91
4	An electrochemical study of PCl3 and POCl3 in the room temperature ionic liquid [C4mpyrr][N(Tf)2]. *Journal of Physical Chemistry B*, **2006**, 110, 22035-42	3.4	22
3	Dynamic and static quenching of fluorescence by 1-4 nm diameter gold monolayer-protected clusters. *Journal of Physical Chemistry B*, **2006**, 110, 4637-44	3.4	116
2	Electrochemical reduction of nitrobenzene and 4-nitrophenol in the room temperature ionic liquid [C4dmim][N(Tf)2]. *Journal of Electroanalytical Chemistry*, **2006**, 596, 131-140	4.1	100
1	Technical Aspects287-351		3