

Debbie S Silvester

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6070316/publications.pdf>

Version: 2024-02-01

97
papers

4,091
citations

147801

31
h-index

123424

61
g-index

100
all docs

100
docs citations

100
times ranked

4272
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanostructure, electrochemistry and potential-dependent lubricity of the catanionic surface-active ionic liquid [P6,6,6,14] [AOT]. Journal of Colloid and Interface Science, 2022, 608, 2120-2130.	9.4	8
2	Ionic liquid/poly(ionic liquid) membranes as non-flowing, conductive materials for electrochemical gas sensing. Analytica Chimica Acta, 2022, 1195, 339414.	5.4	6
3	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.	2.9	0
4	Ionic liquid gel polymer electrolytes for flexible supercapacitors: Challenges and prospects. Current Opinion in Electrochemistry, 2022, 35, 101046.	4.8	22
5	Examining the Electrochemical Nature of an Ionogel Based on the Ionic Liquid [P ₆₆₆₁₄][TFSI] and TiO ₂ : Synthesis, Characterization, and Quantum Chemical Calculations. Industrial & Engineering Chemistry Research, 2022, 61, 8763-8774.	3.7	5
6	Diverse morphologies of zinc oxide nanoparticles and their electrocatalytic performance in hydrogen production. Journal of Energy Chemistry, 2021, 56, 162-170.	12.9	18
7	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.	3.1	56
8	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.	5.2	3
9	Highly efficient re-cycle/generation of LiCoO ₂ cathode assisted by 2-naphthalenesulfonic acid. Journal of Hazardous Materials, 2021, 416, 126114.	12.4	16
10	Liquid Alloying Na ⁺ K for Sodium Metal Anodes. Journal of Physical Chemistry Letters, 2021, 12, 9321-9327.	4.6	9
11	Zinc Oxide Nanoparticles as Antifouling Materials for the Electrochemical Detection of Methylparaben. ChemElectroChem, 2021, 8, 187-194.	3.4	17
12	Emerging Ionic Polymers for CO. Australian Journal of Chemistry, 2021, 74, 767-777.	0.9	11
13	Experimental Evidence of Long-Lived Electric Fields of Ionic Liquid Bilayers. Journal of the American Chemical Society, 2021, 143, 17431-17440.	13.7	31
14	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.	3.1	31
15	A methodology to detect explosive residues using a gelled ionic liquid based field-deployable electrochemical device. Journal of Electroanalytical Chemistry, 2020, 872, 114046.	3.8	10
16	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.	3.5	17
17	Electrodeposited Metal Organic Framework toward Excellent Hydrogen Sensing in an Ionic Liquid. ACS Applied Nano Materials, 2020, 3, 4376-4385.	5.0	24
18	Phase-Controllable Cobalt Phosphides Induced through Hydrogel for Higher Lithium Storages. Inorganic Chemistry, 2020, 59, 6471-6480.	4.0	4

#	ARTICLE	IF	CITATIONS
19	Detection of sulfur dioxide at low parts-per-million concentrations using low-cost planar electrodes with ionic liquid electrolytes. <i>Analytica Chimica Acta</i> , 2020, 1124, 156-165.	5.4	11
20	Electrochemical Properties of a Verdazyl Radical in Room Temperature Ionic Liquids. <i>Australian Journal of Chemistry</i> , 2020, , .	0.9	3
21	Ionophore-Assisted Electrochemistry of Neutral Molecules: Oxidation of Hydrogen in an Ionic Liquid Electrolyte. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6910-6914.	4.6	1
22	Formation of 3-Dimensional Gold, Copper and Palladium Microelectrode Arrays for Enhanced Electrochemical Sensing Applications. <i>Nanomaterials</i> , 2019, 9, 1170.	4.1	9
23	Fast responding hydrogen gas sensors using platinum nanoparticle modified microchannels and ionic liquids. <i>Analytica Chimica Acta</i> , 2019, 1072, 35-45.	5.4	31
24	New innovations in ionic liquid-based miniaturised amperometric gas sensors. <i>Current Opinion in Electrochemistry</i> , 2019, 15, 7-17.	4.8	39
25	Effect of Ionic Liquid Structure on the Oxygen Reduction Reaction Under Humidified Conditions. <i>Journal of Physical Chemistry C</i> , 2019, 123, 10727-10737.	3.1	11
26	Molten metal <i>clo</i> -borate solvates. <i>Chemical Communications</i> , 2019, 55, 3410-3413.	4.1	12
27	Ionic Liquid-based Microchannels for Highly Sensitive and Fast Amperometric Detection of Toxic Gases. <i>Electroanalysis</i> , 2019, 31, 66-74.	2.9	10
28	Interrogation of the Effect of Polymorphism of a Metal-Organic Framework Host on the Structure of Embedded Pd Guest Nanoparticles. <i>ChemPhysChem</i> , 2019, 20, 745-751.	2.1	6
29	Electrochemical Detection of Explosive Compounds in an Ionic Liquid in Mixed Environments: Influence of Oxygen, Moisture, and Other Nitroaromatics on the Sensing Response. <i>Australian Journal of Chemistry</i> , 2019, 72, 122.	0.9	9
30	Preparation of platinum-based 'cauliflower microarrays'™ for enhanced ammonia gas sensing. <i>Analytica Chimica Acta</i> , 2019, 1048, 12-21.	5.4	16
31	Electrochemical Synthesis of Highly Ordered Porous Al Scaffolds Melt-Infiltrated with LiBH ₄ for Hydrogen Storage. <i>Journal of the Electrochemical Society</i> , 2018, 165, D37-D42.	2.9	9
32	Macroporous platinum electrodes for hydrogen oxidation in ionic liquids. <i>Electrochemistry Communications</i> , 2018, 86, 43-47.	4.7	11
33	Comparison of Voltammetric Techniques for Ammonia Sensing in Ionic Liquids. <i>Electroanalysis</i> , 2018, 30, 75-83.	2.9	31
34	Modification of Microelectrode Arrays with High Surface Area Dendritic Platinum 3D Structures: Enhanced Sensitivity for Oxygen Detection in Ionic Liquids. <i>Nanomaterials</i> , 2018, 8, 735.	4.1	10
35	Electrochemical Reduction of 2,4-Dinitrotoluene in Room Temperature Ionic Liquids: A Mechanistic Investigation. <i>Australian Journal of Chemistry</i> , 2018, 71, 818.	0.9	8
36	A lithium iron phosphate reference electrode for ionic liquid electrolytes. <i>Electrochemistry Communications</i> , 2018, 93, 148-151.	4.7	26

#	ARTICLE	IF	CITATIONS
37	Detection of 2,4,6-Trinitrotoluene Using a Miniaturized, Disposable Electrochemical Sensor with an Ionic Liquid Gel-Polymer Electrolyte Film. <i>Analytical Chemistry</i> , 2017, 89, 4729-4736.	6.5	45
38	Recent developments in the electrochemical detection of explosives: Towards field-deployable devices for forensic science. <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 97, 374-384.	11.4	65
39	Screen-Printed Graphite Electrodes as Low-Cost Devices for Oxygen Gas Detection in Room-Temperature Ionic Liquids. <i>Sensors</i> , 2017, 17, 2734.	3.8	15
40	Detection of sub-ppm Concentrations of Ammonia in an Ionic Liquid: Enhanced Current Density Using "Filled" Recessed Microarrays. <i>Analytical Chemistry</i> , 2016, 88, 12453-12460.	6.5	31
41	Electroreduction of 2,4,6-Trinitrotoluene in Room Temperature Ionic Liquids: Evidence of an EC ₂ Mechanism. <i>Journal of Physical Chemistry C</i> , 2016, 120, 10997-11005.	3.1	21
42	Low-cost microarray thin-film electrodes with ionic liquid gel-polymer electrolytes for miniaturised oxygen sensing. <i>Analyst, The</i> , 2016, 141, 3705-3713.	3.5	23
43	Achievement of Prolonged Oxygen Detection in Room-Temperature Ionic Liquids on Mechanically Polished Platinum Screen-Printed Electrodes. <i>Analytical Chemistry</i> , 2016, 88, 5104-5111.	6.5	29
44	Mechanical polishing as an improved surface treatment for platinum screen-printed electrodes. <i>Sensing and Bio-Sensing Research</i> , 2016, 9, 38-44.	4.2	37
45	Electrochemical studies of hydrogen chloride gas in several room temperature ionic liquids: mechanism and sensing. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 2488-2494.	2.8	11
46	Water-Assisted Ion-Paired Proton Transfer at Water-Ionic Liquid Interfaces. <i>Angewandte Chemie</i> , 2015, 127, 15116-15119.	2.0	1
47	Water-Assisted Ion-Paired Proton Transfer at Water-Ionic Liquid Interfaces. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14903-14906.	13.8	8
48	Sensors for Highly Toxic Gases: Methylamine and Hydrogen Chloride Detection at Low Concentrations in an Ionic Liquid on Pt Screen Printed Electrodes. <i>Sensors</i> , 2015, 15, 26866-26876.	3.8	24
49	Towards improving the robustness of electrochemical gas sensors: impact of PMMA addition on the sensing of oxygen in an ionic liquid. <i>Analytical Methods</i> , 2015, 7, 7327-7335.	2.7	32
50	Electrochemical Behavior of Chlorine on Platinum Microdisk and Screen-Printed Electrodes in a Room Temperature Ionic Liquid. <i>Journal of Physical Chemistry C</i> , 2015, 119, 23572-23579.	3.1	25
51	Electrochemical Detection Using Ionic Liquids. <i>RSC Detection Science</i> , 2015, , 341-386.	0.0	2
52	Electrochemical Oxidation and Sensing of Methylamine Gas in Room Temperature Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2014, 118, 19232-19237.	3.1	22
53	Electrochemical Characterization of an Oleyl-coated Magnetite Nanoparticle-Modified Electrode. <i>ChemElectroChem</i> , 2014, 1, 1211-1218.	3.4	22
54	One-step assembly of Re(i) tricarbonyl 2-pyridyltetrazolato metallacalix[3]arene with aqua emission and reversible three-electron oxidation. <i>Dalton Transactions</i> , 2013, 42, 8188.	3.3	19

#	ARTICLE	IF	CITATIONS
55	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?. <i>Electrochimica Acta</i> , 2013, 101, 158-168.	5.2	53
56	Chronoamperometric response at nanoscale liquid-liquid interface arrays. <i>Electrochimica Acta</i> , 2013, 101, 177-185.	5.2	21
57	Ligand-Induced Structural, Photophysical, and Electrochemical Variations in Tricarbonyl Rhenium(I) Tetrazolato Complexes. <i>Organometallics</i> , 2013, 32, 3728-3737.	2.3	29
58	Synthesis, Photophysical and Electrochemical Investigation of Dinuclear Tetrazolato-Bridged Rhenium Complexes. <i>Organometallics</i> , 2012, 31, 7566-7578.	2.3	31
59	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. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7327-7333.	3.1	23
60	Behavior of Lysozyme at the Electrified Water/Room Temperature Ionic Liquid Interface. <i>Chemistry - an Asian Journal</i> , 2012, 7, 2559-2561.	3.3	6
61	Comparative study of screen printed electrodes for ammonia gas sensing in ionic liquids. <i>Electrochemistry Communications</i> , 2011, 13, 1435-1438.	4.7	53
62	Recent advances in the use of ionic liquids for electrochemical sensing. <i>Analyst</i> , 2011, 136, 4871.	3.5	241
63	Array of water room temperature ionic liquid micro-interfaces. <i>Electrochemistry Communications</i> , 2011, 13, 477-479.	4.7	27
64	Voltammetry in Room Temperature Ionic Liquids: Comparisons and Contrasts with Conventional Electrochemical Solvents.. <i>Chemistry - an Asian Journal</i> , 2010, 5, 202-230.	3.3	280
65	Assessing ion-exchange properties and purity of lipophilic electrolytes by potentiometry and spectrophotometry. <i>Electrochemistry Communications</i> , 2010, 12, 110-113.	4.7	3
66	Potentiometric determination of coextraction constants of potassium salts in ion-selective electrodes utilizing a nitrobenzene liquid membrane phase. <i>Analytica Chimica Acta</i> , 2010, 683, 92-95.	5.4	3
67	Synchrotron Radiation/Fourier Transform-Infrared Microspectroscopy Study of Undesirable Water Inclusions in Solid-Contact Polymeric Ion-Selective Electrodes. <i>Analytical Chemistry</i> , 2010, 82, 6203-6207.	6.5	27
68	Measuring the solubility of benzoic acid in room temperature ionic liquids using chronoamperometric techniques. <i>Journal of Physical Organic Chemistry</i> , 2009, 22, 69-76.	1.9	11
69	The electrochemical oxidation of hydrogen at activated platinum electrodes in room temperature ionic liquids as solvents. <i>Journal of Electroanalytical Chemistry</i> , 2008, 618, 53-60.	3.8	82
70	Direct electrochemistry of horseradish peroxidase immobilized in a chitosan-[C4mim][BF4] film: Determination of electrode kinetic parameters. <i>Bioelectrochemistry</i> , 2008, 74, 183-187.	4.6	25
71	Voltammetric Characterization of the Ferrocene Ferrocenium and Cobaltocenium Cobaltocene Redox Couples in RTILs. <i>Journal of Physical Chemistry C</i> , 2008, 112, 2729-2735.	3.1	228
72	Effect of Water on the Electrochemical Window and Potential Limits of Room-Temperature Ionic Liquids. <i>Journal of Chemical & Engineering Data</i> , 2008, 53, 2884-2891.	1.9	486

#	ARTICLE	IF	CITATIONS
73	Electrooxidation of the Iodides [C ₄ mim], Lil, Nal, Kl, Rbl, and Csl in the Room Temperature Ionic Liquid [C ₄ mim][NTf ₂]. Journal of Physical Chemistry C, 2008, 112, 6551-6557.	3.1	50
74	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.	3.1	32
75	Electroreduction of Sulfur Dioxide in Some Room-Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 3398-3404.	3.1	47
76	The Electrochemical Reduction of Hydrogen Sulfide on Platinum in Several Room Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 7725-7730.	3.1	46
77	Electrochemical Reduction of Benzoic Acid and Substituted Benzoic Acids in Some Room Temperature Ionic Liquids. Journal of Physical Chemistry C, 2008, 112, 12966-12973.	3.1	38
78	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.	3.1	28
79	The electrochemistry of simple inorganic molecules in room temperature ionic liquids. Journal of the Brazilian Chemical Society, 2008, 19, 611-620.	0.6	34
80	Using XPS to determine solute solubility in room temperature ionic liquids. Analyst, The, 2007, 132, 196.	3.5	45
81	The electrochemical oxidation and reduction of nitrate ions in the room temperature ionic liquid [C ₂ mim][NTf ₂]; the latter behaves as a "melt" rather than an "organic solvent". New Journal of Chemistry, 2007, 31, 966-972.	2.8	25
82	Voltammetric Studies of Gold, Protons, and [HCl ₂]-in Ionic Liquids. Journal of Physical Chemistry C, 2007, 111, 8496-8503.	3.1	63
83	Mechanistic Studies of the Electro-oxidation Pathway of Ammonia in Several Room-Temperature Ionic Liquids. Journal of Physical Chemistry C, 2007, 111, 9562-9572.	3.1	39
84	Electrochemical Oxidation of Nitrite and the Oxidation and Reduction of NO ₂ in the Room Temperature Ionic Liquid [C ₂ mim][NTf ₂]. Journal of Physical Chemistry B, 2007, 111, 7778-7785.	2.6	72
85	Electrochemical Kinetics of Ag Ag ⁺ and TMPD TMPD+ in the Room-Temperature Ionic Liquid [C ₄ mpyr][NTf ₂]; toward Optimizing Reference Electrodes for Voltammetry in RTILs. Journal of Physical Chemistry C, 2007, 111, 13957-13966.	3.1	62
86	An Electrochemical Study of the Oxidation of Hydrogen at Platinum Electrodes in Several Room Temperature Ionic Liquids. Journal of Physical Chemistry B, 2007, 111, 5000-5007.	2.6	102
87	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.	3.1	57
88	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.	2.9	39
89	Electrochemical Ammonia Gas Sensing in Nonaqueous Systems: A Comparison of Propylene Carbonate with Room Temperature Ionic Liquids. Electroanalysis, 2007, 19, 2194-2201.	2.9	48
90	Electrochemistry in Room Temperature Ionic Liquids: A Review and Some Possible Applications. Zeitschrift Fur Physikalische Chemie, 2006, 220, 1247-1274.	2.8	286

#	ARTICLE	IF	CITATIONS
91	Electrochemical studies of gold and chloride in ionic liquids. <i>New Journal of Chemistry</i> , 2006, 30, 1576-1583.	2.8	103
92	An Electrochemical Study of PCl_3 and POCl_3 in the Room Temperature Ionic Liquid $[\text{C}_4\text{mpyrr}][\text{N}(\text{Tf})_2]$. <i>Journal of Physical Chemistry B</i> , 2006, 110, 22035-22042.	2.6	23
93	Dynamic and Static Quenching of Fluorescence by $1\text{--}4$ nm Diameter Gold Monolayer-Protected Clusters. <i>Journal of Physical Chemistry B</i> , 2006, 110, 4637-4644.	2.6	118
94	Electrochemical reduction of nitrobenzene and 4-nitrophenol in the room temperature ionic liquid $[\text{C}_4\text{dmim}][\text{N}(\text{Tf})_2]$. <i>Journal of Electroanalytical Chemistry</i> , 2006, 596, 131-140.	3.8	111
95	The Electrochemistry of Vitamin B12 in Ionic Liquids and Its Use in the Electrocatalytic Reduction of Vicinal Dibromoalkanes. <i>Electroanalysis</i> , 2006, 18, 2263-2268.	2.9	15
96	Technical Aspects. , 0, , 287-351.		3
97	Hydrogen-Bonding 2D Coordination Polymer for Enzyme-Free Electrochemical Glucose Sensing. <i>CrystEngComm</i> , 0, , .	2.6	3