Gregory George Wildgoose

List of Publications by Citations

98 papers	6,538 citations	39 h-index	80 g-index
102 ext. papers	6,877 ext. citations	6.2 avg, IF	5.72 L-index

#	Paper	IF	Citations
98	Metal nanoparticles and related materials supported on carbon nanotubes: methods and applications. *Small*, **2006**, 2, 182-93	11	885
97	Electrocatalysis at graphite and carbon nanotube modified electrodes: edge-plane sites and tube ends are the reactive sites. *Chemical Communications*, **2005**, 829-41	5.8	853
96	Cyclic voltammetry on electrode surfaces covered with porous layers: An analysis of electron transfer kinetics at single-walled carbon nanotube modified electrodes. *Sensors and Actuators B: Chemical*, **2008**, 133, 462-466	8.5	352
95	Chemically Modified Carbon Nanotubes for Use in Electroanalysis. *Mikrochimica Acta*, **2006**, 152, 187-214	5.8	295
94	Sensitive adsorptive stripping voltammetric determination of paracetamol at multiwalled carbon nanotube modified basal plane pyrolytic graphite electrode. *Analytica Chimica Acta*, **2008**, 618, 54-60	6.6	224
93	The use of copper(II) oxide nanorod bundles for the non-enzymatic voltammetric sensing of carbohydrates and hydrogen peroxide. *Sensors and Actuators B: Chemical*, **2008**, 135, 230-235	8.5	167
92	Sensitive electrochemical detection of arsenic (III) using gold nanoparticle modified carbon nanotubes via anodic stripping voltammetry. *Analytica Chimica Acta*, **2008**, 620, 44-9	6.6	167
91	Electroanalysis using macro-, micro-, and nanochemical architectures on electrode surfaces. Bulk surface modification of glassy carbon microspheres with gold nanoparticles and their electrical wiring using carbon nanotubes. *Analytical Chemistry*, **2006**, 78, 6102-8	7.8	165
90	Copper oxide nanoparticle impurities are responsible for the electroanalytical detection of glucose seen using multiwalled carbon nanotubes. *Sensors and Actuators B: Chemical*, **2008**, 132, 356-360	8.5	146
89	Nickel(II) tetra-aminophthalocyanine modified MWCNTs as potential nanocomposite materials for the development of supercapacitors. *Energy and Environmental Science*, **2010**, 3, 228-236	35.4	131
88	Apparent 'electrocatalytic' activity of multiwalled carbon nanotubes in the detection of the anaesthetic halothane: occluded copper nanoparticles. *Analyst, The*, **2006**, 131, 901-6	5	130
87	Carbon nanotube-based electrochemical sensors for quantifying the 'heat' of chilli peppers: the adsorptive stripping voltammetric determination of capsaicin. *Analyst, The*, **2008**, 133, 888-95	5	126
86	Separating electrophilicity and Lewis acidity: the synthesis, characterization, and electrochemistry of the electron deficient tris(aryl)boranes B(C6F5)(3-n)(C6Cl5)n (n = 1-3). *Journal of the American Chemical Society*, **2011**, 133, 14727-40	16.4	125
85	Design, fabrication, characterisation and application of nanoelectrode arrays. *Chemical Physics Letters*, **2008**, 459, 1-17	2.5	107
84	The influence of edge-plane defects and oxygen-containing surface groups on the voltammetry of acid-treated, annealed and 'super-annealed' multiwalled carbon nanotubes. *Journal of Solid State Electrochemistry*, **2008**, 12, 1337-1348	2.6	95
83	Anthraquinone-derivatised carbon powder: reagentless voltammetric pH electrodes. *Talanta*, **2003**, 60, 887-93	6.2	93
82	Facile Protocol for Water-Tolerant "Frustrated Lewis Pair"-Catalyzed Hydrogenation. *ACS Catalysis*, **2015**, 5, 5540-5544	13.1	87

81	The formazanate ligand as an electron reservoir: bis(formazanate) zinc complexes isolated in three redox states. *Angewandte Chemie - International Edition*, **2014**, 53, 4118-22	16.4	83
80	Derivatised carbon powder electrodes: reagentless pH sensors. *Talanta*, **2004**, 63, 1039-51	6.2	83
79	Homoleptic permethylpentalene complexes: "double metallocenes" of the first-row transition metals. *Journal of the American Chemical Society*, **2008**, 130, 15662-77	16.4	80
78	Chemical derivatisation of multiwalled carbon nanotubes using diazonium salts. *ChemPhysChem*, **2004**, 5, 1794-9	3.2	79
77	Unusual Voltammetry of the Reduction of O2 in [C4dmim][N(Tf)2] Reveals a Strong Interaction of O2 with the [C4dmim]+ Cation. *Journal of Physical Chemistry C*, **2008**, 112, 13709-13715	3.8	77
76	The physicochemical aspects of DNA sensing using electrochemical methods. *Biosensors and Bioelectronics*, **2009**, 24, 3183-90	11.8	76
75	Characterising chemical functionality on carbon surfaces. *Journal of Materials Chemistry*, **2009**, 19, 4875		71
74	Electrochemical ESR and voltammetric studies of lithium ion pairing with electrogenerated 9,10-anthraquinone radical anions either free in acetonitrile solution or covalently bound to multiwalled carbon nanotubes. *Journal of Physical Chemistry B*, **2005**, 109, 3971-8	3.4	70
73	Exploring the origins of the apparent electrocatalysis observed at C60 film-modified electrodes. *Sensors and Actuators B: Chemical*, **2009**, 138, 524-531	8.5	65
72	Voltammetric and X-ray photoelectron spectroscopic fingerprinting of carboxylic acid groups on the surface of carbon nanotubes via derivatisation with arylnitro labels. *Journal of Materials Chemistry*, **2007**, 17, 3515		59
71	A mechanistic investigation into the covalent chemical derivatisation of graphite and glassy carbon surfaces using aryldiazonium salts. *Journal of Physical Organic Chemistry*, **2008**, 21, 433-439	2.1	56
70	Exploring the fate of the tris(pentafluorophenyl)borane radical anion in weakly coordinating solvents. *Dalton Transactions*, **2013**, 42, 782-9	4.3	52
69	Investigating the thermodynamic causes behind the anomalously large shifts in pKa values of benzoic acid-modified graphite and glassy carbon surfaces. *Langmuir*, **2007**, 23, 7847-52	4	50
68	Using multiwalled carbon nanotube modified electrodes for the adsorptive striping voltammetric determination of hesperidin. *Electrochimica Acta*, **2009**, 54, 5030-5034	6.7	49
67	Graphite powder derivatised with poly-L-cysteine using building-block chemistry: a novel material for the extraction of heavy metal ions. *Journal of Materials Chemistry*, **2005**, 15, 2375		49
66	Graphite powder and multiwalled carbon nanotubes chemically modified with 4-nitrobenzylamine. *ChemPhysChem*, **2005**, 6, 352-62	3.2	49
65	Differentiating between ortho- and para-Quinone Surface Groups on Graphite, Glassy Carbon, and Carbon Nanotubes Using Organic and Inorganic Voltammetric and X-ray Photoelectron Spectroscopy Labels. *Chemistry of Materials*, **2007**, 19, 4964-4974	9.6	48
64	An electrochemical study of frustrated Lewis pairs: a metal-free route to hydrogen oxidation. *Journal of the American Chemical Society*, **2014**, 136, 6031-6	16.4	47

63	Electrochemical Opening of Single-Walled Carbon Nanotubes Filled with Metal Halides and with Closed Ends. *Journal of Physical Chemistry C*, **2008**, 112, 10389-10397	3.8	46
62	Investigating the reactive sites and the anomalously large changes in surface pKa values of chemically modified carbon nanotubes of different morphologies. *Journal of Materials Chemistry*, **2007**, 17, 2616		44
61	Identifying quinone-like species on the surface of graphitic carbon and multi-walled carbon nanotubes using reactions with 2,4-dinitrophenylhydrazine to provide a voltammetric fingerprint. *New Journal of Chemistry*, **2007**, 31, 958	3.6	40
60	An electrochemical comparison of manganese dioxide microparticles versus α and β manganese dioxide nanorods: mechanistic and electrocatalytic behaviour. *New Journal of Chemistry*, **2008**, 32, 1195	3.6	40
59	Cysteine methyl ester modified glassy carbon spheres for removal of toxic heavy metals from aqueous media. *Chemical Communications*, **2005**, 3694-6	5.8	39
58	Designer electrode interfaces simultaneously comprising three different metal nanoparticle (Au, Ag, Pd)/carbon microsphere/carbon nanotube composites: progress towards combinatorial electrochemistry. *Analyst, The*, **2006**, 131, 1241-7	5	39
57	A facile method of modifying graphite powder with aminophenyl groups in bulk quantities. *Journal of Materials Chemistry*, **2007**, 17, 3008		38
56	Abrasively immobilised multiwalled carbon nanotube agglomerates: a novel electrode material approach for the analytical sensing of pH. *ChemPhysChem*, **2004**, 5, 669-77	3.2	38
55	A sensitive reagentless pH probe with a ca. 120 mV/pH unit response. *Journal of Solid State Electrochemistry*, **2004**, 8, 718	2.6	37
54	Teaching old compounds new tricks: efficient N2 fixation by simple Fe(N2)(diphosphine)2 complexes. *Dalton Transactions*, **2016**, 45, 7550-4	4.3	35
53	Novel B(Ar')2(Ar'') hetero-tri(aryl)boranes: a systematic study of Lewis acidity. *Dalton Transactions*, **2016**, 45, 6032-43	4.3	34
52	The electroreduction of C60 films in aqueous electrolyte does not lead to alkali metal ion insertion Evidence for the involvement of adventitious poly-epoxidated C60 (C60On). *Sensors and Actuators B: Chemical*, **2009**, 138, 397-401	8.5	32
51	X-Ray photoelectron spectroscopy studies of graphite powder and multiwalled carbon nanotubes covalently modified with Fast Black K: evidence for a chemical release mechanism via electrochemical reduction. *Journal of Materials Chemistry*, **2005**, 15, 953		32
50	3-Aryl-3-(trifluoromethyl)diazirines as Versatile Photoactivated Linker Molecules for the Improved Covalent Modification of Graphitic and Carbon Nanotube Surfaces. *Chemistry of Materials* , **2011**, 23, 3740-3751	9.6	30
49	Exploring structural and electronic effects in three isomers of tris{bis(trifluoromethyl)phenyl}borane: towards the combined electrochemical-frustrated Lewis pair activation of H2. *Dalton Transactions*, **2016**, 45, 6023-31	4.3	29
48	The thermodynamics of sequestration of toxic copper(II) metal ion pollutants from aqueous media by L-cysteine methyl ester modified glassy carbon spheres. *Journal of Materials Chemistry*, **2006**, 16, 970		27
47	Multiwalled carbon nanotubes with molybdenum dioxide nanoplugs--new chemical nanoarchitectures by electrochemical modification. *Small*, **2006**, 2, 95-8	11	27
46	Metal-free dihydrogen oxidation by a borenium cation: a combined electrochemical/frustrated Lewis pair approach. *Angewandte Chemie - International Edition*, **2014**, 53, 9922-5	16.4	26

45	Electrochemistry of Au(II) and Au(III) pincer complexes: determination of the Au(II)-Au(II) bond energy. *Chemical Communications*, **2013**, 49, 10169-71	5.8	26
44	The expansion/contraction of gold microparticles during voltammetrically induced amalgamation leads to mechanical instability. *New Journal of Chemistry*, **2007**, 31, 2071	3.6	24
43	Fabricating random arrays of boron doped diamond nano-disc electrodes: Towards achieving maximum Faradaic current with minimum capacitive charging. *Sensors and Actuators B: Chemical*, **2008**, 133, 118-127	8.5	23
42	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
41	Removal of toxic metal-ion pollutants from water by using chemically modified carbon powders. *Chemistry - an Asian Journal*, **2006**, 1, 614-22	4.5	23
40	Synthesis, Photochemical, and Redox Properties of Gold(I) and Gold(III) Pincer Complexes Incorporating a 2,2':6',2"-Terpyridine Ligand Framework. *Inorganic Chemistry*, **2015**, 54, 10667-77	5.1	22
39	4-Nitrobenzylamine partially intercalated into graphite powder and multiwalled carbon nanotubes: characterization using X-ray photoelectron spectroscopy and in situ atomic force microscopy. *Langmuir*, **2005**, 21, 4584-91	4	22
38	Metal-free electrocatalytic hydrogen oxidation using frustrated Lewis pairs and carbon-based Lewis acids. *Chemical Science*, **2016**, 7, 2537-2543	9.4	21
37	The Formazanate Ligand as an Electron Reservoir: Bis(Formazanate) Zinc Complexes Isolated in Three Redox States. *Angewandte Chemie*, **2014**, 126, 4202-4206	3.6	21
36	Bis(permethylpentalene)uranium. *Dalton Transactions*, **2010**, 39, 6789-93	4.3	21
35	Investigating the voltammetric reduction of methylviologen at gold and carbon based electrode materials. Evidence for a surface bound adsorption mechanism leading to electrode protection using multi-walled carbon nanotubes. *New Journal of Chemistry*, **2008**, 32, 1628	3.6	20
34	Contrasting pKa of protonated bis(3-aminopropyl)-terminated polyethylene glycol "Jeffamine" and the associated thermodynamic parameters in solution and covalently attached to graphite surfaces. *Chemistry - A European Journal*, **2007**, 13, 9663-7	4.8	20
33	"Janus" Calixarenes: Double-Sided Molecular Linkers for Facile, Multianchor Point, Multifunctional, Surface Modification. *Langmuir*, **2016**, 32, 7806-13	4	18
32	Gold Nanoparticle-Modified Carbon Nanotubes-Modified Electrodes. Using Voltammetry to Measure the Total Length of the Nanotubes. *Journal of Physical Chemistry C*, **2008**, 112, 1933-1937	3.8	18
31	The theory of non-Cottrellian diffusion on the surface of a sphere or truncated sphere. *ChemPhysChem*, **2006**, 7, 1328-36	3.2	18
30	Multiwalled carbon nanotubes covalently modified with fast black K. *ChemPhysChem*, **2005**, 6, 590-5	3.2	18
29	Evaluation of a novel pad printing technique for the fabrication of disposable electrode assemblies. *Sensors and Actuators B: Chemical*, **2005**, 107, 491-496	8.5	18
28	Metallic nanoparticles deposited on carbon microspheres: novel materials for combinatorial electrochemistry and electroanalysis. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 2274-82	1.3	16

27	The contrasting behaviour of polycrystalline bulk gold and gold nanoparticle modified electrodes towards the underpotential deposition of thallium. *New Journal of Chemistry*, **2008**, 32, 941	3.6	16
26	Cymantrene–Triazole "Click" Products: Structural Characterization and Electrochemical Properties. *Organometallics*, **2014**, 33, 4687-4696	3.8	15
25	Generator/Collector Experiments with a Single Electrode: Introduction and Application to Exploring the Oxidation Mechanism of Serotonin. *Journal of Physical Chemistry C*, **2009**, 113, 14285-14289	3.8	15
24	Building block syntheses of gallic acid monomers and tris-(O-gallyl)-gallic acid dendrimers chemically attached to graphite powder: a comparative study of their uptake of Al(III) ions. *Langmuir*, **2010**, 26, 1776-85	4	15
23	Developing Random Network Theory for Carbon Nanotube Modified Electrode Voltammetry: Introduction and Application to Estimating the Potential Drop between MWCNT–MWCNT Contacts. *Journal of Physical Chemistry C*, **2008**, 112, 13729-13738	3.8	15
22	The influence of substrate effects when investigating new nanoparticle modified electrodes exemplified by the electroanalytical determination of aspirin on NiO nanoparticles supported on graphite. *Electrochemistry Communications*, **2008**, 10, 1129-1131	5.1	15
21	Synthesis and characterization of carbon nanotubes covalently functionalized with amphiphilic polymer coated superparamagnetic nanocrystals. *Journal of Colloid and Interface Science*, **2012**, 383, 110-7	9.3	13
20	A combined "electrochemical-frustrated lewis pair" approach to hydrogen activation: surface catalytic effects at platinum electrodes. *Chemistry - A European Journal*, **2015**, 21, 900-6	4.8	12
19	Generator-collector experiments at a single electrode: exploring the general applicability of this approach by comparing the performance of surface immobilized versus solution phase sensing molecules. *Langmuir*, **2010**, 26, 1340-6	4	12
18	Removal of palladium ions from aqueous systems by chemically modified cysteine carbon powder. *Journal of Materials Chemistry*, **2008**, 18, 3948		12
17	A New Mode of Chemical Reactivity for Metal-Free Hydrogen Activation by Lewis Acidic Boranes. *Angewandte Chemie - International Edition*, **2019**, 58, 8362-8366	16.4	11
16	A New Method of Studying Ion Transfer at Liquid|Liquid Phase Boundaries Using a Carbon Nanotube Paste Electrode with a Redox Active Binder. *Journal of Physical Chemistry C*, **2007**, 111, 18353-18360	3.8	11
15	H2 activation using the first 1 : 1 : 1 hetero-tri(aryl)borane. *RSC Advances*, **2016**, 6, 42421-42427	3.7	10
14	Metal-Free Dihydrogen Oxidation by a Borenium Cation: A Combined Electrochemical/Frustrated Lewis Pair Approach. *Angewandte Chemie*, **2014**, 126, 10080-10083	3.6	9
13	Enabling electrochemical studies of chemically-modified carbon nanotubes in non-aqueous electrolytes using superparamagnetic nanoparticle-nanotube composites co-modified by diazirine molecular "tethers" *Electrochemistry Communications*, **2011**, 13, 1139-1142	5.1	9
12	The voltammetric determination of peroxynitrite at a mercury film electrode. *New Journal of Chemistry*, **2007**, 31, 394	3.6	9
11	Adsorption of bismuth ions on graphite chemically modified with gallic acid. *Physical Chemistry Chemical Physics*, **2012**, 14, 10027-31	3.6	7
10	Synthesis and characterization of redox active cyrhetrene–triazole click products. *Journal of Organometallic Chemistry*, **2014**, 770, 29-34	2.3	6

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8	Mathematical modelling and simulation of adsorption processes at spherical microparticles. *ChemPhysChem*, **2006**, 7, 697-703	3.2	5
7	Designer interfaces: diffusional protection of electrodes using chemical architectures. *Journal of Materials Chemistry*, **2006**, 16, 4103		5
6	Characterisation and application of a novel cell for mechanistic electrochemistry at elevated temperatures. *Physical Chemistry Chemical Physics*, **2003**, 5, 4219	3.6	5
5	A G Stromberg First Class Scientist, Second Class Citizen **2011**,		5
4	Electrocatalysis at Graphite and Carbon Nanotube Modified Electrodes: Edge-Plane Sites and Tube Ends Are the Reactive Sites. *ChemInform*, **2005**, 36, no		4
3	A New Mode of Chemical Reactivity for Metal-Free Hydrogen Activation by Lewis Acidic Boranes. *Angewandte Chemie*, **2019**, 131, 8450	3.6	
2	Innenrücktitelbild: The Formazanate Ligand as an Electron Reservoir: Bis(Formazanate) Zinc Complexes Isolated in Three Redox States (Angew. Chem. 16/2014). *Angewandte Chemie*, **2014**, 126, 4335-4335	3.6	
1	Carbon Nanotube Based Sensors and Biosensors1-37		