Jay D Wadhawan

List of Publications by Citations

42 papers	824 citations	18 h-index	28 g-index
43 ext. papers	878 ext. citations	6.1 avg, IF	3.73 L-index

#	Paper	IF	Citations
42	Electrochemistry of immobilised redox droplets: Concepts and applications. *Physical Chemistry Chemical Physics*, **2003**, 5, 4053	3.6	164
41	Ultrafast voltammetry for probing interfacial electron transfer in molecular wires. *ChemPhysChem*, **2007**, 8, 1321-9	3.2	76
40	Voltammetry of Electroactive Oil Droplets. Part II: Comparison of Experimental and Simulation Data for Coupled Ion and Electron Insertion Processes and Evidence for Microscale Convection. *Electroanalysis*, **2000**, 12, 1017-1025	3	50
39	Biphasic sonoelectrosynthesis. A review. *Pure and Applied Chemistry*, **2001**, 73, 1947-1955	2.1	41
38	Electrocatalytic reactions mediated by N,N,N$,N$Tetraalkyl-1,4-phenylenediamine redox liquid microdroplet-modified electrodes: chemical and photochemical reactions In, and At the surface of, femtoliter droplets. *Journal of the American Chemical Society*, **2003**, 125, 11418-29	16.4	36
37	Synthesis and antibacterial effects of cobalt□ellulose magnetic nanocomposites. *RSC Advances*, **2017**, 7, 20020-20026	3.7	35
36	Empowering the smart grid: can redox batteries be matched to renewable energy systems for energy storage?. *Energy and Environmental Science*, **2013**, 6, 1026	35.4	30
35	Reactive chemistry via the redox switching of microdroplets of 4-nitrophenyl nonyl ether in the presence of aqueous electrolytes. *Physical Chemistry Chemical Physics*, **2003**, 5, 1867-1875	3.6	28
34	Voltammetry of electroactive liquid redox systems: anion insertion and chemical reactions in microdroplets of para-tetrakis(6-methoxyhexyl) phenylenediamine, para- and meta-tetrahexylphenylenediamine. *Journal of Solid State Electrochemistry*, **2001**, 5, 17-22	2.6	28
33	Laminated microelectrodes: a simple approach to the construction of inexpensive microelectrodes with a variety of geometries. *Analytical Chemistry*, **2001**, 73, 6088-92	7.8	28
32	Study of Pyridine-Mediated Electrochemical Reduction of CO2 to Methanol at High CO2 Pressure. *ChemSusChem*, **2016**, 9, 1660-9	8.3	27
31	Photoelectrochemically driven processes at the N,N,N?,N?-tetrahexylphenylenediamine microdroplet|electrode|aqueous electrolyte triple interface. *Journal of Solid State Electrochemistry*, **2001**, 5, 301-305	2.6	26
30	Sono-emulsion electrosynthesis: electrode-insensitive Kolbe reactions. *Chemical Communications*, **2001**, 87-88	5.8	24
29	A mechanistic study of the EC? mechanism □he split wave in cyclic voltammetry and square wave voltammetry. *RSC Advances*, **2016**, 6, 70237-70242	3.7	22
28	Immobilized anthraquinone for redox mediation of horseradish peroxidase for hydrogen peroxide sensing. *Electrochemistry Communications*, **2009**, 11, 1976-1981	5.1	21
27	Biphasic redox chemistry of □-tocopherol: Evidence for electrochemically induced hydrolysis and dimerization on the surface of and within femtolitre droplets immobilized onto graphite electrodes. *Physical Chemistry Chemical Physics*, **2004**, 6, 836-842	3.6	19
26	Electrochemical probing of photochemical reactions inside femtolitre droplets confined to electrodes. *ChemPhysChem*, **2003**, 4, 1211-5	3.2	19

25	Multiphase Methods in Organic Electrosynthesis. *Accounts of Chemical Research*, **2019**, 52, 3325-3338	24.3	19
24	Voltammetric Immunoassay for the Detection of Protein Biomarkers. *Electroanalysis*, **2012**, 24, 264-272	3	17
23	Synthesis and antimicrobial effects of highly dispersed, cellulose-stabilized silver/cellulose nanocomposites.. *RSC Advances*, **2018**, 8, 3646-3656	3.7	16
22	Surfactant-free emulsion electrosynthesis via power ultrasound: electrocatalytic formation of carbon□arbon bonds. *Green Chemistry*, **2002**, 4, 570-577	10	14
21	Photogalvanic cells based on lyotropic nanosystems: towards the use of liquid nanotechnology for personalised energy sources. *Energy and Environmental Science*, **2012**, 5, 6541	35.4	13
20	Electron hopping rate measurements in ITO junctions: Charge diffusion in a layer-by-layer deposited ruthenium(II)-bis(benzimidazolyl)pyridine-phosphonate□iO2 film. *Journal of Electroanalytical Chemistry*, **2011**, 657, 196-201	4.1	13
19	Electrochemical estimation of diffusion anisotropy of N,N,N$,N$Stetramethyl-para-phenylenediamine within the normal hexagonal lyotropic mesophase of Triton X 100/light water: when can the effects of cross-pseudophase electron transfer be neglected for partitioned reagents?. *Journal of Physical Chemistry B*, **2011**, 115, 6509-23	3.4	8
18	Electrochemical Determination of Diffusion Anisotropy in Molecularly-Structured Materials. *Journal of Physical Chemistry C*, **2009**, 113, 8901-8910	3.8	8
17	Electrogenerated chemiluminescence at droplet-modified electrodes: towards biphasic pKa measurement via proton-coupled electron transfer at liquid|liquid interfaces. *New Journal of Chemistry*, **2009**, 33, 749	3.6	8
16	Electrochemical measurement of antibody-antigen recognition biophysics: Thermodynamics and kinetics of human chorionic gonadotropin (hCG) binding to redox-tagged antibodies. *Journal of Electroanalytical Chemistry*, **2018**, 819, 533-541	4.1	7
15	Amperometric measurement of gaseous hydrogen sulfide via a Clark-type approach. *Analytical Methods*, **2010**, 2, 1346	3.2	6
14	Concentration-dependent diffusion coefficients of tert-butylferrocene within dodecyltrimethylammonium chloride/brine liquid crystals. *Electrochemistry Communications*, **2012**, 17, 41-44	5.1	4
13	Biphasic Voltammetry of N,N,N?,N?-Tetraphenyl-para-phenylenediamine Microdroplets, Microparticles and Microparticle Suspensions. *Electroanalysis*, **2011**, 23, 997-1006	3	4
12	A model for efficient, semiconductor-free solar cells via supersensitized electron transfer cascades in photogalvanic devices. *Physical Chemistry Chemical Physics*, **2013**, 15, 3218-26	3.6	3
11	Electrochemical quantification of d-glucose during the production of bioethanol from thermo-mechanically pre-treated wheat straw. *Electrochemistry Communications*, **2021**, 124, 106942	5.1	3
10	Regular Solution Theory for Polymer Permeation Transients: A Toolkit for Understanding Experimental Waveshapes. *Langmuir*, **2020**, 36, 5003-5020	4	2
9	Imaging immunoassay in negative: surface-catalysed chemiluminescence for the detection of pregnancy hormones in artificial saliva. *New Journal of Chemistry*, **2018**, 42, 18641-18648	3.6	2
8	Synthesis and characterisation of organic-modified inorganic nanorods. *Journal of Experimental Nanoscience*, **2012**, 7, 673-687	1.9	1

7	Unravelling the Occurrence of Mediator-Blood Protein Interactions via the Redox Catalysis of the Physiological Gasotransmitter Hydrogen Sulfide. *ChemistrySelect*, **2021**, 6, 10059-10062	1.8	1
6	Evaporative mass loss measurement as a quality control tool for quality assurance in the manufacture of inks suitable for high speed (30 m min−1) printing. *Journal of Electroanalytical Chemistry*, **2020**, 872, 114328	4.1	1
5	Intra- and Inter-molecular Sulf- hydryl Hydrogen Bonding: Facilitating Proton Transfer Events for Determination of pH in Sea Water. *Electroanalysis*, **2021**, 33, 559-562	3	0
4	Electrochemically Induced Mesomorphism Switching in a Chlorpromazine Hydrochloride Lyotropic Liquid Crystal. *ACS Omega*, **2021**, 6, 4630-4640	3.9	0
3	Asymmetric and Anharmonic Electrode Kinetics: Evaluation of a Model for Electron Transfer with Concerted Rupture of Weak, Inner Shell Interactions. *ChemistrySelect*, **2021**, 6, 13331-13335	1.8	0
2	Electroanalytical Methods: Guide to Experiments and Applications. F. Scholz, Editor. Springer-Verlag: Berlin, 2002. 331 pp. 100 figures, 31 tables. £49.00 (€89.95 + VAT) ISBN: 3-540-42229-3 (hardcover). *The Chemical Educator*, **2002**, 7, 321-322		
1	In situ recalibration of ion selective electrodes. *Sensors & Diagnostics*,		