Jay D Wadhawan

List of Publications by Year
in descending order

43	955	361296	434063
papers	citations	20 h-index	31 g-index

43	43	43	1030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electrochemistry of immobilised redox droplets: Concepts and applications. Physical Chemistry Chemical Physics, 2003, 5, 4053.	1.3	179
2	Ultrafast Voltammetry for Probing Interfacial Electron Transfer in Molecular Wires. ChemPhysChem, 2007, 8, 1321-1329.	1.0	78
3	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.	1.5	60
4	Biphasic sonoelectrosynthesis. A review. Pure and Applied Chemistry, 2001, 73, 1947-1955.	0.9	48
5	Synthesis and antibacterial effects of cobaltâ€“cellulose magnetic nanocomposites. RSC Advances, 2017, 7, 20020-20026.	1.7	47
6	Electrocatalytic Reactions Mediated byN,N,Nâ€˜,Nâ€˜-Tetraalkyl-1,4-phenylenediamine Redox Liquid Microdroplet-Modified Electrodes:Â Chemical and Photochemical Reactions In, and At the Surface of, Femtoliter Droplets. Journal of the American Chemical Society, 2003, 125, 11418-11429.	6.6	40
7	Study of Pyridineâ€Mediated Electrochemical Reduction of CO₂ to Methanol at High CO₂ Pressure. ChemSusChem, 2016, 9, 1660-1669.	3.6	34
8	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.	1.2	31
9	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.	1.3	31
10	Empowering the smart grid: can redox batteries be matched to renewable energy systems for energy storage?. Energy and Environmental Science, 2013, 6, 1026.	15.6	31
11	Photoelectrochemically driven processes at the N,N,Nâ€²,Nâ€²-tetrahexylphenylenediamine microdroplet|electrode|aqueous electrolyte triple interface. Journal of Solid State Electrochemistry, 2001, 5, 301-305.	1.2	30
12	Laminated Microelectrodes:Â A Simple Approach to the Construction of Inexpensive Microelectrodes with a Variety of Geometries. Analytical Chemistry, 2001, 73, 6088-6092.	3.2	28
13	Sono-emulsion electrosynthesis: electrode-insensitive Kolbe reactions. Chemical Communications, 2001, , 87-88.	2.2	27
14	A mechanistic study of the ECâ€² mechanism â€“ the split wave in cyclic voltammetry and square wave voltammetry. RSC Advances, 2016, 6, 70237-70242.	1.7	26
15	Synthesis and antimicrobial effects of highly dispersed, cellulose-stabilized silver/cellulose nanocomposites. RSC Advances, 2018, 8, 3646-3656.	1.7	25
16	Multiphase Methods in Organic Electrosynthesis. Accounts of Chemical Research, 2019, 52, 3325-3338.	7.6	25
17	Biphasic redox chemistry of Î±-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.	1.3	23
18	Surfactant-free emulsion electrosynthesis via power ultrasound: electrocatalytic formation of carbonâ€“carbon bonds. Green Chemistry, 2002, 4, 570-577.	4.6	21

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19	Immobilized anthraquinone for redox mediation of horseradish peroxidase for hydrogen peroxide sensing. Electrochemistry Communications, 2009, 11, 1976-1981.	2.3	21
20	Electrochemical Probing of Photochemical Reactions Inside Femtolitre Droplets Confined to Electrodes. ChemPhysChem, 2003, 4, 1211-1215.	1.0	20
21	Voltammetric Immunoassay for the Detection of Protein Biomarkers. Electroanalysis, 2012, 24, 264-272.	1.5	20
22	Photogalvanic cells based on lyotropic nanosystems: towards the use of liquid nanotechnology for personalised energy sources. Energy and Environmental Science, 2012, 5, 6541.	15.6	17
23	Electron hopping rate measurements in ITO junctions: Charge diffusion in a layer-by-layer deposited ruthenium(II)-bis(benzimidazolyl)pyridine-phosphonateâ€“TiO2 film. Journal of Electroanalytical Chemistry, 2011, 657, 196-201.	1.9	13
24	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.	1.4	9
25	Electrochemical Determination of Diffusion Anisotropy in Molecularly-Structured Materials. Journal of Physical Chemistry C, 2009, 113, 8901-8910.	1.5	8
26	Electrochemical Estimation of Diffusion Anisotropy ofN,N,Nâ€²,Nâ€²-Tetramethyl-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, 6509-6523.	1.2	8
27	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.	1.9	8
28	Electrochemical quantification of d-glucose during the production of bioethanol from thermo-mechanically pre-treated wheat straw. Electrochemistry Communications, 2021, 124, 106942.	2.3	8
29	Amperometric measurement of gaseous hydrogen sulfide via a Clark-type approach. Analytical Methods, 2010, 2, 1346.	1.3	7
30	Biphasic Voltammetry of N,N,Nâ€²,Nâ€²â€Tetraphenylâ€paraâ€phenylenediamine Microdroplets, Microparticles and Microparticle Suspensions. Electroanalysis, 2011, 23, 997-1006.	1.5	4
31	Concentration-dependent diffusion coefficients of tert-butylferrocene within dodecyltrimethylammonium chloride/brine liquid crystals. Electrochemistry Communications, 2012, 17, 41-44.	2.3	4
32	Regular Solution Theory for Polymer Permeation Transients: A Toolkit for Understanding Experimental Waveshapes. Langmuir, 2020, 36, 5003-5020.	1.6	4
33	Interaction of temperature, salinity and extracellular polymeric substances controls trace element incorporation into tufa calcite. Depositional Record, 2022, 8, 210-219.	0.8	4
34	A model for efficient, semiconductor-free solar cells via supersensitized electron transfer cascades in photogalvanic devices. Physical Chemistry Chemical Physics, 2013, 15, 3218.	1.3	3
35	Imaging immunoassay in negative: surface-catalysed chemiluminescence for the detection of pregnancy hormones in artificial saliva. New Journal of Chemistry, 2018, 42, 18641-18648.	1.4	3
36	Intraâ€•and Interâ€•molecular Sulfâ€•hydryl Hydrogen Bonding: Facilitating Proton Transfer Events for Determination of pH in Sea Water. Electroanalysis, 2021, 33, 559-562.	1.5	2

#	Article	IF	Citations
37	Unravelling the Occurrence of Mediatorâ€Blood Protein Interactions via the Redox Catalysis of the Physiological Gasotransmitter Hydrogen Sulfide. ChemistrySelect, 2021, 6, 10059-10062.	0.7	2
38	In situ recalibration of ion selective electrodes. Sensors & Diagnostics, 2022, 1, 134-138.	1.9	2
39	Synthesis and characterisation of organic-modified inorganic nanorods. Journal of Experimental Nanoscience, 2012, 7, 673-687.	1.3	1
40	Evaporative mass loss measurement as a quality control tool for quality assurance in the manufacture of inks suitable for high speed (â‰¥60ÂmÂminâ¯1) printing. Journal of Electroanalytical Chemistry, 2020, 872, 114328.	1.9	1
41	Electrochemically Induced Mesomorphism Switching in a Chlorpromazine Hydrochloride Lyotropic Liquid Crystal. ACS Omega, 2021, 6, 4630-4640.	1.6	1
42	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.	0.7	1
43	Electroanalytical Methods: Guide to Experiments and Applications. F. Scholz, Editor. Springer-Verlag: Berlin, 2002. 331 pp. 100 figures, 31 tables. ï¿½49.00 (?69.95 + VAT) ISBN: 3-540-42229-3 (hardcover). The Chemical Educator, 2002, 7, 321-322.	0.0	0