

Mark T Mcdermott

List of Publications by Year in descending order

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67
papers

4,790
citations

101384

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69
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docs citations

69
times ranked

5395
citing authors

#	ARTICLE	IF	CITATIONS
1	Nucleation and Growth of Functionalized Aryl Films on Graphite Electrodes. <i>Langmuir</i> , 1999, 15, 6534-6540.	1.6	295
2	Formation of Multilayers on Glassy Carbon Electrodes via the Reduction of Diazonium Salts. <i>Langmuir</i> , 2001, 17, 5947-5951.	1.6	289
3	Anomalously Slow Electron Transfer at Ordered Graphite Electrodes: Influence of Electronic Factors and Reactive Sites. <i>The Journal of Physical Chemistry</i> , 1994, 98, 5314-5319.	2.9	246
4	Label-Free Reading of Microarray-Based Immunoassays with Surface Plasmon Resonance Imaging. <i>Analytical Chemistry</i> , 2004, 76, 7257-7262.	3.2	212
5	Characterization of electrochemically deposited gold nanocrystals on glassy carbon electrodes. <i>Journal of Electroanalytical Chemistry</i> , 1999, 466, 234-241.	1.9	202
6	Suspension viscosities and shape parameter of cellulose nanocrystals (CNC). <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 377, 297-303.	2.3	191
7	Diazonium-Derived Aryl Films on Gold Nanoparticles: Evidence for a Carbon-Gold Covalent Bond. <i>ACS Nano</i> , 2011, 5, 4219-4227.	7.3	189
8	Nanometer-Scale Mapping of Chemically Distinct Domains at Well-Defined Organic Interfaces Using Frictional Force Microscopy. <i>The Journal of Physical Chemistry</i> , 1995, 99, 10960-10965.	2.9	186
9	Scanning Force Microscopic Exploration of the Lubrication Capabilities of n-Alkanethiolate Monolayers Chemisorbed at Gold: Structural Basis of Microscopic Friction and Wear. <i>Langmuir</i> , 1997, 13, 2504-2510.	1.6	167
10	Antraquinonedisulfonate adsorption, electron-transfer kinetics, and capacitance on ordered graphite electrodes: the important role of surface defects. <i>The Journal of Physical Chemistry</i> , 1992, 96, 3124-3130.	2.9	164
11	Observation of the doubly charged, gas-phase fullerene anions C ₆₀ ²⁻ and C ₇₀ ²⁻ . <i>Journal of the American Chemical Society</i> , 1991, 113, 6795-6798.	6.6	157
12	Chemically immobilized T4-bacteriophage for specific Escherichia coli detection using surface plasmon resonance. <i>Analyst</i> , 2011, 136, 486-492.	1.7	141
13	Title is missing!. <i>Tribology Letters</i> , 2002, 12, 155-162.	1.2	136
14	Scanning Tunneling Microscopy of Ordered Graphite and Glassy Carbon Surfaces: Electronic Control of Quinone Adsorption. <i>Langmuir</i> , 1994, 10, 4307-4314.	1.6	131
15	Comment on Electrochemical Kinetics at Ordered Graphite Electrodes. <i>Analytical Chemistry</i> , 2012, 84, 2602-2605.	3.2	129
16	Structural Origins of the Surface Depressions at Alkanethiolate Monolayers on Au(111): A Scanning Tunneling and Atomic Force Microscopic Investigation. <i>The Journal of Physical Chemistry</i> , 1995, 99, 13257-13267.	2.9	125
17	Comparison of Diazonium Salt Derived and Thiol Derived Nitrobenzene Layers on Gold. <i>Langmuir</i> , 2009, 25, 4556-4563.	1.6	119
18	Scanning tunneling microscopy of carbon surfaces: relationships between electrode kinetics, capacitance, and morphology for glassy carbon electrodes. <i>Analytical Chemistry</i> , 1993, 65, 937-944.	3.2	100

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19	Characterization of Surfactant Coatings in Capillary Electrophoresis by Atomic Force Microscopy. <i>Analytical Chemistry</i> , 2001, 73, 4558-4565.	3.2	88
20	Control of reactivity at carbon electrode surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1994, 93, 211-219.	2.3	86
21	Fungal Isolate Optimized for Biogenesis of Silver Nanoparticles with Enhanced Colloidal Stability. <i>Langmuir</i> , 2016, 32, 8688-8697.	1.6	85
22	Specific detection of <i>Campylobacter jejuni</i> using the bacteriophage NCTC 12673 receptor binding protein as a probe. <i>Analyst, The</i> , 2011, 136, 4780.	1.7	83
23	Real-Time Observation of Plasma Protein Film Formation on Well-Defined Surfaces with Scanning Force Microscopy. <i>Langmuir</i> , 1998, 14, 2435-2443.	1.6	79
24	Morphology and Electrochemical Effects of Defects on Highly Oriented Pyrolytic Graphite. <i>Journal of the Electrochemical Society</i> , 1991, 138, 2412-2418.	1.3	73
25	Localized Surface Plasmon Resonance Biosensor Using Silver Nanostructures Fabricated by Glancing Angle Deposition. <i>Analytical Chemistry</i> , 2007, 79, 4228-4232.	3.2	65
26	Preparation of reproducible glassy carbon electrodes by removal of polishing impurities. <i>Journal of Electroanalytical Chemistry</i> , 2003, 540, 7-15.	1.9	64
27	High-Resolution Chemical Mapping of Surface Bound Functional Groups with Tapping-Mode Scanning Force Microscopy. <i>Journal of the American Chemical Society</i> , 1997, 119, 8564-8565.	6.6	56
28	Mapping Interfacial Chemistry Induced Variations in Protein Adsorption with Scanning Force Microscopy. <i>Analytical Chemistry</i> , 2000, 72, 2627-2634.	3.2	55
29	Ultraflat Carbon Film Electrodes Prepared by Electron Beam Evaporation. <i>Analytical Chemistry</i> , 2004, 76, 2544-2552.	3.2	54
30	Characterization of n-alkanethiolate monolayers adsorbed to electrochemically deposited gold nanocrystals on glassy carbon electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2000, 488, 125-132.	1.9	51
31	Hydroxylated naphthoquinones as substrates for <i>Escherichia coli</i> anaerobic reductases. <i>Biochemical Journal</i> , 1998, 332, 35-41.	1.7	50
32	Morphological evolution of films formed from thermooxidative decomposition of ZDDP. <i>Wear</i> , 2001, 247, 172-179.	1.5	47
33	Real Time Monitoring of the Electrochemical Transformation of a Ferrocene-Terminated Alkanethiolate Monolayer at Gold via an Adhesion-Based Atomic Force Microscopic Characterization. <i>The Journal of Physical Chemistry</i> , 1996, 100, 13342-13345.	2.9	46
34	Surface Plasmon Resonance Imaging Measurements of the Inhibition of Shiga-like Toxin by Synthetic Multivalent Inhibitors. <i>Analytical Chemistry</i> , 2005, 77, 7497-7504.	3.2	46
35	An enzyme-linked assay for the rapid quantification of microRNAs based on the viral suppressor of RNA silencing protein p19. <i>Analytical Biochemistry</i> , 2011, 412, 165-172.	1.1	46
36	Stretchable, tough, self-recoverable, and cytocompatible chitosan/cellulose nanocrystals/polyacrylamide hybrid hydrogels. <i>Carbohydrate Polymers</i> , 2019, 222, 114977.	5.1	44

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37	Functionalized gold nanoparticle-enhanced competitive assay for sensitive small-molecule metabolite detection using surface plasmon resonance. <i>Analyst, The</i> , 2018, 143, 289-296.	1.7	36
38	Specific detection of proteins using nanomechanical resonators. <i>Sensors and Actuators B: Chemical</i> , 2008, 134, 613-617.	4.0	35
39	SFM Tip-Assisted Hydrolysis of a Dithiobis(succinimido undecanoate) Monolayer Chemisorbed on a Au(111) Surface. <i>Journal of the American Chemical Society</i> , 1997, 119, 12796-12799.	6.6	34
40	Optimization of Immobilized Bacterial Disaccharides for Surface Plasmon Resonance Imaging Measurements of Antibody Binding. <i>Langmuir</i> , 2008, 24, 14125-14132.	1.6	34
41	Probing Morphological and Compositional Variations of Anodized Carbon Electrodes with Tapping-Mode Scanning Force Microscopy. <i>Analytical Chemistry</i> , 1999, 71, 4306-4312.	3.2	32
42	Fabrication and Characterization of Graphitic Carbon Nanostructures with Controllable Size, Shape, and Position. <i>Small</i> , 2009, 5, 1162-1168.	5.2	29
43	A Glassy Carbon Microfluidic Device for Electrospray Mass Spectrometry. <i>Analytical Chemistry</i> , 2004, 76, 2393-2397.	3.2	28
44	Gold nanostars as a colloidal substrate for in-solution SERS measurements using a handheld Raman spectrometer. <i>Analyst, The</i> , 2020, 145, 1396-1407.	1.7	28
45	Surface-Directed Deposition of Platinum Nanostructures on Graphite by Chemical Vapor Deposition. <i>Langmuir</i> , 2000, 16, 5837-5840.	1.6	19
46	Voltammetric and Scanning Force Microscopic Investigation of Anthraquinone Films Spontaneously Adsorbed on Ordered Graphite. <i>Journal of Physical Chemistry B</i> , 1999, 103, 1295-1302.	1.2	18
47	Plasmonic Cellulose Nanofibers as Water-Dispersible Surface-Enhanced Raman Scattering Substrates. <i>ACS Applied Nano Materials</i> , 2020, 3, 6584-6597.	2.4	18
48	Cellulose Nanocrystals Influence Polyamide 6 Crystal Structure, Spherulite Uniformity, and Mechanical Performance of Nanocomposite Films. <i>ACS Applied Polymer Materials</i> , 2021, 3, 4673-4684.	2.0	17
49	Microfabrication of Glassy Carbon by Electrochemical Etching. <i>Journal of the Electrochemical Society</i> , 2004, 151, C142.	1.3	16
50	Adhesive surface interactions of cellulose nanocrystals from different sources. <i>Journal of Materials Science</i> , 2012, 47, 3961-3970.	1.7	15
51	Immuno-impedimetric Biosensor for Onsite Monitoring of Ascospores and Forecasting of Sclerotinia Stem Rot of Canola. <i>Scientific Reports</i> , 2018, 8, 12396.	1.6	14
52	Covalently modified graphitic carbon-based stationary phases for anion chromatography. <i>Analyst, The</i> , 2009, 134, 2273.	1.7	13
53	Humidity affects the morphology of particles emitted from beclomethasone dipropionate pressurized metered dose inhalers. <i>International Journal of Pharmaceutics</i> , 2017, 520, 207-215.	2.6	13
54	A surface plasmon resonance based inhibition immunoassay for measurement of steroid hormones. <i>Analytical Biochemistry</i> , 2018, 557, 7-12.	1.1	13

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55	Direct Tip Shape Determination of a Berkovich Indenter: Effect on Nanomechanical Property Measurement and Description of a Worn Indenter. <i>IEEE Nanotechnology Magazine</i> , 2010, 9, 487-493.	1.1	11
56	Aryl Diazonium Chemistry for the Surface Functionalization of Glassy Biosensors. <i>Biosensors</i> , 2016, 6, 8.	2.3	9
57	Cellulose nanocrystal-derived hollow mesoporous carbon spheres and their application as a metal-free catalyst. <i>Nanotechnology</i> , 2017, 28, 505606.	1.3	9
58	Study of Nitroazobenzene Films Covalently Attached at the Surface of Carbon that Exhibit Conductance Switching. <i>E-Journal of Surface Science and Nanotechnology</i> , 2006, 4, 419-425.	0.1	8
59	Application of Surface-Enhanced Raman Spectroscopy to Guide Therapy for Advanced Prostate Cancer Patients. <i>ACS Sensors</i> , 2022, 7, 827-838.	4.0	7
60	A review of fabrication processes for vertical comb drives. <i>Microsystem Technologies</i> , 2012, 18, 381-397.	1.2	5
61	Diazonium Chemistry for the Bio-Functionalization of Glassy Nanostring Resonator Arrays. <i>Sensors</i> , 2015, 15, 18724-18741.	2.1	5
62	Fabrication of oriented electrospun cellulose nanocrystals/polystyrene composite fibers on a rotating drum. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48942.	1.3	5
63	Investigation of dual component protein films on graphite with scanning force microscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2003, 32, 191-202.	2.5	4
64	Fabrication of arrays of carbon micro- and nanostructures via electrochemical etching. <i>Micro and Nano Letters</i> , 2009, 4, 22-26.	0.6	4
65	On the Counterintuitive Heterogeneous Electron Transfer Barrier Properties of Alkanethiolate Monolayers on Gold: Smooth versus Rough Surfaces. <i>Electroanalysis</i> , 2022, 34, 1936-1952.	1.5	3
66	Morphology and Nanoindentation Profiles of Automotive Engine Components. <i>Surface Engineering</i> , 2002, 18, 70-74.	1.1	2
67	Evaluation of the electroanalytical performance of carbon-on-gold films prepared by electron-beam evaporation. <i>Analyst, The</i> , 2020, 145, 5041-5052.	1.7	1