

Lawrence A Bottomley

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

1,318
citations

331538

21
h-index

345118

36
g-index

52
all docs

52
docs citations

52
times ranked

1737
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Scanning Probe Microscopy. Analytical Chemistry, 1998, 70, 425-476. | 3.2 | 124 |
| 2 | Raman spectroscopic monitoring of carbon deposition on hydrocarbon-fed solid oxide fuel cell anodes. Energy and Environmental Science, 2012, 5, 7913. | 15.6 | 105 |
| 3 | Scanning Probe Microscopy. Analytical Chemistry, 1996, 68, 185-230. | 3.2 | 85 |
| 4 | Influence of π -Stacking on the Redox Properties of Oligothiophenes: α -((\pm -Alkyloligo-thienyl)para[2.2]cyclophanes. Organic Letters, 2002, 4, 3195-3198. | 2.4 | 77 |
| 5 | Measuring the Compression of a Carbon Nanospring. Nano Letters, 2004, 4, 1009-1016. | 4.5 | 71 |
| 6 | High-temperature surface enhanced Raman spectroscopy for in situ study of solid oxide fuel cell materials. Energy and Environmental Science, 2014, 7, 306-310. | 15.6 | 58 |
| 7 | Well-organized raspberry-like Ag@Cu bimetal nanoparticles for highly reliable and reproducible surface-enhanced Raman scattering. Nanoscale, 2013, 5, 11620. | 2.8 | 57 |
| 8 | The {Bis-2,6-[1-(2-imidazol-4-ylethylimino)ethyl]pyridine}copper(I) cation. A synthetic Cu I oxygen carrier in solution as a potential model for oxyhemocyanin. Journal of the Chemical Society Dalton Transactions, 1980, , 1827. | 1.1 | 56 |
| 9 | In Situ Probing of the Mechanisms of Coking Resistance on Catalyst-Modified Anodes for Solid Oxide Fuel Cells. Chemistry of Materials, 2015, 27, 822-828. | 3.2 | 54 |
| 10 | Scanning Probe Microscopy. Analytical Chemistry, 2000, 72, 189-196. | 3.2 | 50 |
| 11 | Measuring the Adhesion Forces between Alkanethiol-Modified AFM Cantilevers and Single Walled Carbon Nanotubes. Nano Letters, 2004, 4, 61-64. | 4.5 | 48 |
| 12 | Cyclic Square Wave Voltammetry of Single and Consecutive Reversible Electron Transfer Reactions. Analytical Chemistry, 2009, 81, 9041-9047. | 3.2 | 48 |
| 13 | Stereoelectronic Aspects of Inter-Metal Nitrogen Atom Transfer Reactions between Nitridomanganese(V) and Chromium(III) Porphyrins. Inorganic Chemistry, 1997, 36, 5435-5439. | 1.9 | 39 |
| 14 | Chemical Force Microscopy on Single-Walled Carbon Nanotube Paper. Chemistry of Materials, 2005, 17, 4289-4295. | 3.2 | 39 |
| 15 | Application of surface enhanced Raman spectroscopy to the study of SOFC electrode surfaces. Physical Chemistry Chemical Physics, 2012, 14, 5919. | 1.3 | 38 |
| 16 | Effect of water absorption on pollen adhesion. Journal of Colloid and Interface Science, 2015, 442, 133-139. | 5.0 | 38 |
| 17 | Scanning Probe Microscopy. Analytical Chemistry, 2002, 74, 2851-2862. | 3.2 | 37 |
| 18 | An operando surface enhanced Raman spectroscopy (SERS) study of carbon deposition on SOFC anodes. Physical Chemistry Chemical Physics, 2015, 17, 21112-21119. | 1.3 | 34 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Heterobimetallic $\frac{1}{4}$ -Nitrido Complexes Formed by Incomplete Nitrogen Atom Transfer Reactions between Nitridorhenium(V) and Chlorochromium(III) Porphyrins. <i>Inorganic Chemistry</i> , 1996, 35, 5108-5109. | 1.9 | 21 |
| 20 | Inter-Metal Nitrogen Atom Transfer Reactions between Nitridochromium(V) and Chromium(III) Porphyrins. <i>Inorganic Chemistry</i> , 1997, 36, 5432-5434. | 1.9 | 21 |
| 21 | Thermal Stability of Silver Nanorod Arrays. <i>Chemistry of Materials</i> , 2010, 22, 2184-2189. | 3.2 | 21 |
| 22 | Diagnostic Criteria for the Characterization of Quasireversible Electron Transfer Reactions by Cyclic Square Wave Voltammetry. <i>Analytical Chemistry</i> , 2014, 86, 8183-8191. | 3.2 | 21 |
| 23 | Cyclic Square Wave Voltammetry of Surface-Confined Quasireversible Electron Transfer Reactions. <i>Langmuir</i> , 2015, 31, 9511-9520. | 1.6 | 19 |
| 24 | Photoluminescence in the Earliest Stages of Porous Silicon Formation. <i>Journal of the Electrochemical Society</i> , 1996, 143, L164-L166. | 1.3 | 18 |
| 25 | Trends in the Interaction of the Strong Acids HCl, HBr, and HI with a Photoluminescing Porous Silicon Surface. <i>Journal of Physical Chemistry B</i> , 1997, 101, 8860-8864. | 1.2 | 15 |
| 26 | Redox Tuning of Iron Porphyrins. <i>Advances in Chemistry Series</i> , 1982, , 279-311. | 0.6 | 11 |
| 27 | Impact of Nano- and Mesoscale Particles on the Performance of Microcantilever-Based Sensors. <i>Analytical Chemistry</i> , 2004, 76, 5685-5689. | 3.2 | 11 |
| 28 | Diagnostic Criteria for Identifying an ECE Mechanism with Cyclic Square Wave Voltammetry. <i>Journal of the Electrochemical Society</i> , 2016, 163, H3101-H3109. | 1.3 | 11 |
| 29 | Diagnostic Criteria for the Characterization of Electrode Reactions with Chemical Reactions Following Electron Transfer by Cyclic Square Wave Voltammetry. <i>Electrochimica Acta</i> , 2016, 205, 20-28. | 2.6 | 9 |
| 30 | Diagnostic Criteria for the Characterization of Electrode Reactions with Chemically Coupled Reactions Preceding the Electron Transfer by Cyclic Square Wave Voltammetry. <i>ChemPhysChem</i> , 2016, 17, 2596-2606. | 1.0 | 9 |
| 31 | A new mechanism for spontaneous nanostructure formation on bottom-patterned compliant substrates. <i>Applied Physics Letters</i> , 1997, 71, 2773-2775. | 1.5 | 8 |
| 32 | Electrosynthesis of Sodium Hydrosulfite: III. Porous Cathode Materials and Process Model. <i>Journal of the Electrochemical Society</i> , 1998, 145, 4062-4066. | 1.3 | 7 |
| 33 | Supercapacitor Electrodes Based on Three-Dimensional Copper Structures with Precisely Controlled Dimensions. <i>ChemElectroChem</i> , 2015, 2, 236-245. | 1.7 | 7 |
| 34 | Dimers of Nineteen-Electron Sandwich Compounds: An Electrochemical Study of the Kinetics of Their Formation. <i>Organometallics</i> , 2015, 34, 3706-3712. | 1.1 | 7 |
| 35 | Coordinated Acylimido Complexes Formed by Reaction of Nitridorhenium and Nitridomolybdenum Porphyrins with Substituted Acetic Anhydrides. <i>Journal of Porphyrins and Phthalocyanines</i> , 1998, 02, 261-268. | 0.4 | 6 |
| 36 | Electrochemical Patterning of the Surface of Insulators with Electrically Conductive Polymers. <i>Journal of the Electrochemical Society</i> , 1995, 142, L226-L227. | 1.3 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Cationic Polyacrylamide Conformation on Mica Studied by Single Molecule "Pulling" with Scanning Probe Microscopy. <i>Macromolecules</i> , 2007, 40, 4561-4567. | 2.2 | 5 |
| 38 | Electrosynthesis of Sodium Hydrosulfite: II. The Effect of Cathode Material. <i>Journal of the Electrochemical Society</i> , 1998, 145, 4057-4061. | 1.3 | 4 |
| 39 | Salt Effect on Cationic Polyacrylamide Conformation on Mica Studied by Single Molecule "Pulling" with Scanning Probe Microscopy. <i>Journal of Physical Chemistry B</i> , 2008, 112, 12686-12691. | 1.2 | 4 |
| 40 | Empirical Correlation of the Morphology of Coiled Carbon Nanotubes with Their Response to Axial Compression. <i>Journal of Nanotechnology</i> , 2014, 2014, 1-12. | 1.5 | 4 |
| 41 | Kinetic and electrochemical study of nitrile adducts of tetrachloro-bis (1,2-bis(diphenylphosphine)methane)dirhenium(II). <i>Transition Metal Chemistry</i> , 1995, 20, 409-412. | 0.7 | 3 |
| 42 | Electrosynthesis of Sodium Hydrosulfite: I. Development of an Online Process Control Monitor. <i>Journal of the Electrochemical Society</i> , 1998, 145, 4052-4056. | 1.3 | 3 |
| 43 | Antraquinone compounds as redox mediators for enhanced continuous-flow anaerobic biotransformation of reactive dyes under hypersaline conditions. <i>Desalination and Water Treatment</i> , 2011, 33, 68-76. | 1.0 | 3 |
| 44 | Scanning tunneling microscopic imaging of electrostatically immobilized nucleic acids: the influence of self-assembled monolayer structure on the binding of plasmid DNA to gold surfaces. , 1993, 1891, 48. | | 2 |
| 45 | Peeling of Long, Straight Carbon Nanotubes from Surfaces. <i>Journal of Nanotechnology</i> , 2014, 2014, 1-11. | 1.5 | 2 |
| 46 | An Electrochemical Investigation of Several $\frac{1}{4}$ Nitrido Iron Porphyrin Dimers. <i>Journal of the Electrochemical Society</i> , 1980, 127, 307C-309C. | 1.3 | 1 |
| 47 | Molecular Design of Next-generation Single Walled Carbon Nanotubes-Polymer Composites. <i>Microscopy and Microanalysis</i> , 2004, 10, 134-135. | 0.2 | 1 |
| 48 | Adhesive and Mechanical Properties of Carbon Nanotube Probes Contacting Chemically-Treated Surfaces. , 2011, , . | | 1 |
| 49 | Structural characterization and nanometer-scale domain formation in phospholipid model membranes by infrared spectroscopy and scanning tunneling microscopy. , 1994, , . | | 0 |
| 50 | Preparation of atomically smooth Ge substrates for combined IR spectroscopy and scanning probe microscopy of organic monolayers. , 1994, , . | | 0 |
| 51 | Force Spectroscopy of Biopolymers:Correlating Molecular Structure with Single Molecule Elasticity. <i>Microscopy and Microanalysis</i> , 2004, 10, 204-205. | 0.2 | 0 |
| 52 | Single Molecule Mechanical Testing of Mimetic-Elastin Molecules. <i>Microscopy and Microanalysis</i> , 2004, 10, 1096-1097. | 0.2 | 0 |