

Publication List - R. L. McCreery

(* denotes invited publication, all items refereed except those indicated by a +)

1. R.L. McCreery and D.T. Sawyer, "Gas Solid Chromatography Using Various Salt-modified Activated Aluminas and Magnesium Silicates," *J. Chromatog. Sci.*, **1970**, 8, 122.
2. D.T. Sawyer, R.Y. Komai and R.L. McCreery, "Electrochemical Studies of Flavins and of Metal-flavin Interaction in Aprotic Solvents," *Experientia, Suppl.*, **1971**, 18, 563.
3. D.T. Sawyer and R.L. McCreery, "Electrochemical Studies of the Interactions of Riboflavin and its Reduction Products with Metal Ions in Dimethylsulfoxide," *Inorg. Chem.*, **1972**, 11, 779.
4. R.N. Adams, E. Murrill, R.L. McCreery, L. Blank and M. Karolczak, "6-Hydroxydopamine, a New Oxidation Mechanism," *Eur. J. Pharmacol.*, **1972**, 17, 287.
5. A.W. Sternson, R.L. McCreery, B. Feinberg and R.N. Adams, "Electrochemical Studies of Adrenergic Neurotransmitters and Related Compounds," *J. Electroanal. Chem.*, **1973**, 46, 313.
6. R.L. McCreery, R. Dreiling and R.N. Adams, "Voltammetry in Brain Tissue, Quantitative Studies of Drug Interactions," *Brain Research*, **1974**, 73, 23.
7. R.L. McCreery, R. Dreiling and R.N. Adams, "Voltammetry in Brain Tissue, the Fate of 6-hydroxydopamine," *Brain Research*, **1974**, 73, 15.
8. D. C.S. Tse, R.L. McCreery, and R.N. Adams, "Potential Oxidative Pathways of Brain Catecholamines," *J. Med. Chem.*, **1976**, 19, 37.
9. C.L. Blank, R.L. McCreery, R.M. Wightman, W. Chey, R.N. Adams, J.R. Reid, and E.E. Smissman, "Intracyclization Rates of 6-hydroxydopamine and 6-aminodopamine Analogs under Physiological Conditions," *J. Med. Chem.*, **1976**, 19, 178.
10. R.R. Ruffalo, Jr., R.L. McCreery, and P.N. Patil, "A Kinetic Analysis of a Catechol Specific Binding Site in the Microsomal Fraction from the Rabbit Aorta," *Eur. J. Pharmacol.*, **1976**, 38, 221.
11. R.L. McCreery, "Oxidation Reactions of Hydroxylated Chlorpromazine Metabolites," *J. Pharm. Sci.*, **1977**, 66, 367.
12. R.L. McCreery, "Thin Layer Technique for Monitoring Electrogenerated Reactive Intermediates," *Anal. Chem.*, **1977**, 49, 206.
13. H.Y. Cheng and R.L. McCreery, "Potential Dependent Chronoamperometry;

- Experimental Verification,” *J. Electroanal. Chem.*, **1977**, 85, 361.
- 14.* R.L. McCreery, “Bioelectrochemistry: An Examination of Some Examples”, *CRC critical reviews in Analytical Chemistry*, **1978**, 7, 89.
 15. H.Y. Cheng, P.H. Sackett, and R.L. McCreery, “Kinetics of Chlorpromazine Cation Radical Decomposition in Aqueous Buffers,” *J. Am. Chem. Soc.*, **1978**, 100, 962.
 16. H.Y. Cheng and R.L. McCreery, “Simultaneous Determination of Reversible Potential and Rate Constant for a First-order Ec Reaction by Potential Dependent Chronoamperometry,” *Anal. Chem.*, **1978**, 50, 645.
 17. M. Neptune and R.L. McCreery, “Chemical and Electrochemical oxidation of 7-hydroxychlorpromazine,” *J. Med. Chem.*, **1978**, 21, 362.
 18. H.Y. Cheng, P. Sackett, and R.L. McCreery, “Reactions of Chlorpromazine Cation Radical with Physiologically Occurring Nucleophiles,” *J. Med. Chem.*, **1978**, 21, 948.
 19. M. Neptune and R.L. McCreery, “Characteristics and Reactions of Quinoneimines and Cation Radicals Derived from Hydroxylated Chlorpromazine Derivatives,” *J. Org. Chem.*, **1978**, 43, 5006.
 20. M. Neptune, A.A. Manian, and R.L. McCreery, “Electrochemical Oxidation of Hydroxylated Phenothiazine and Imipramine Derivatives,” *J. Med. Chem.*, **1979**, 22, 196.
 21. R.L. McCreery, R. Pruiksma, and R. Fagan, “Optical Monitoring of Electrogenenerated Species via Specular Reflection at Glancing Incidence”, *Anal. Chem.*, **1979**, 51, 748.
 22. P. Sackett and R.L. McCreery, “Effect of Structure on Phenothiazine Cation Radical Reactions in Aqueous Buffers,” *J. Med. Chem.*, **1979**, 22, 1447.
 23. R. Pruiksma and R.L. McCreery, “Observation of Electrochemical Concentration Profiles Using Absorption Spectroelectrochemistry,” *Anal. Chem.*, **1979**, 51, 2253.
 24. D.R. Henton, R.L. McCreery, and J.S. Swenton, “Anodic Oxidation of 1,4 Dimethoxy Aromatic Compounds. A Facile Route to Functionalized Quinone Bisketals,” *J. Org. Chem.*, **1980**, 45, 369.
 25. J. Skully and R.L. McCreery, “Glancing Incidence External Reflection Spectroelectrochemistry Using a Continuum Source,” *Anal. Chem.*, **1980**, 52, 1885.
 26. P. Rossi, C.W. McCurdy, and R.L. McCreery, “Diffractive Spectroelectrochemistry: Use of Diffracted Light for Monitoring Electrogenenerated Chromophores,” *J. Am. Chem. Soc.*, **1981**, 103, 2524.
 27. R. Pruiksma and R.L. McCreery, “Spectroelectrochemical Observation of Diffusion Profiles by the Parallel Absorption Method,” *Anal. Chem.*, **1981**, 53, 202.

28. R.S. Robinson and R.L. McCreery, "Absorption Spectroelectrochemistry with Microelectrodes." *Anal. Chem.*, **1981**, 53, 997.
29. P.H. Sackett, J.S. Mayausky, T. Smith, S. Kalus, and R.L. McCreery, "Side Chain Effects on Phenothiazine Cation Radical Reactions," *J. Med. Chem.*, **1981**, 24, 1342.
- 30.* J.S. Mayausky, H.Y. Cheng, P.H. Sackett, and R.L. McCreery, "Spectro-electrochemical Examination of the Reactions of Chlorpromazine Cation Radical with Physiological Nucleophiles," *ACS Advances in Chemistry*, **1982**, Series 201, Chap. 19.
- 31.* R.L. McCreery, "Optical Diffraction by Electrodes: Use of Fourier Transforms in Spectroelectrochemistry," in Fourier, Hadamard and Hilbert Transforms in Chemistry, A.G. Marshall (Ed.), Plenum, **1982**, pp. 527-548.
32. R.S. Robinson, C.W. McCurdy, and R.L. McCreery, "Microsecond Spectroelectrochemistry by External Reflection from Cylindrical Microelectrodes," *Anal. Chem.*, **1982**, 54, 2356.
33. J. Mayausky and R.L. McCreery, "On the Mechanism of Chlorpromazine Cation Radical Decay in Aqueous Solution," *Act. Chem. Scand. B.* **1982**, 36, 713.
- 34.+ R.L. McCreery, C.W. McCurdy, and P. Rossi, "Diffractive Spectroelectrochemistry," **1983**, U.S. Patent #4,395,312.
35. R.L. McCreery, P.H. Hendra, and M. Fleischmann, "Fiber Optic Probe for Remote Raman Spectroscopy," *Anal. Chem.*, **1983**, 55, 146.
36. J.S. Mayausky and R.L. McCreery, "Spectroelectrochemical Examination of the Reactions of Chlorpromazine Cation Radical with Mono- and Bifunctional Nucleophiles," *J. Electroanal. Chem.*, **1983**, 145, 117.
37. J. Mayausky and R.L. McCreery, "Spectroelectrochemical Examination of Charge Transfer Between Chlorpromazine Cation Radical and Catecholamines," *Anal. Chem.*, **1983**, 55, 308.
38. P. Rossi and R.L. McCreery, "Diffractive Spectroelectrochemistry: A Sensitive Probe of the Diffusion Layer," *J. Electroanal. Chem.*, **1983**, 151, 47.
39. E. Hershenhart, R. D. Knight, and R. L. McCreery, "In Situ Cleaning and Activation of Solid Electrode Surfaces by Pulsed Laser Light," *Anal. Chem.*, **1984**, 56, 2256.
40. S.D. Schwab and R. L. McCreery, "Versatile, Efficient Raman Sampling with Fiber Optics," *Anal. Chem.*, **1984**, 56, 2199.
41. R.S. Robinson and R.L. McCreery, "Submicrosecond Spectroelectrochemistry by

- External Reflection at Microdisk Electrodes,” *J. Electroanal. Chem.*, **1985**, 182, 61.
42. C.C. Jan, B.K. Lavine, and R.L. McCreery, “High Sensitivity Spectroelectrochemistry Based on Electrochemical Modulation with Synchronous Detection,” *Anal. Chem.*, **1985**, 57, 752.
 43. C.C. Jan, F.T. Gamble, and R.L. McCreery, “Diffusion Layer Imaging: Spatial Resolution of the Electrochemical Diffusion Layer,” *Anal. Chem.*, **1985**, 57, 1763.
 44. S. Schwab, K.C. Cummings, and R.L. McCreery, “The Effect of Surface Chemistry on the Morphology, Resistance, and Colloidal Properties of Small Silver Particles,” *J. Appl. Phys.*, **1985**, 58, 355.
 45. S.A. Schuette and R.L. McCreery, “Square Wave Voltammetry on Platinum Microdisk Electrodes Using Synchronous Demodulation,” *J. Electroanal. Chem.*, **1985**, 57, 1763.
 46. * + R.L. McCreery, "Spectroelectrochemistry," in Physical Methods in Chemistry, Vol. 2, B. Rossiter (Ed.), John Wiley, **1986**, pp. 591-662.
 47. S.A. Schuette and R.L. McCreery, “Efficient Hydrodynamic Modulation at Microcylinder Electrodes,” *Anal. Chem.*, **1986**, 58, 1778.
 48. S.D. Schwab, R. L. McCreery, and F.T. Gamble, “Normal and Resonance Raman Spectroelectrochemistry with Fiber Optics Collection,” *Anal. Chem.*, **1986**, 58, 2486.
 49. M. Poon and R.L. McCreery, “*In-situ* Laser Activation of Glassy Carbon Electrodes,” *Anal. Chem.*, **1986**, 58, 2745. (Reprinted as "Milestone in Analytical Chemistry," American Chemical Society, 1994).
 50. C.-C. Jan and R.L. McCreery, “High Resolution Spatially Resolved Visible Spectrometry of the Electrochemical Diffusion Layer,” *Anal. Chem.*, **1986**, 58, 2771.
 51. S.D. Schwab and R.L. McCreery, “Remote, Long Path Cell for High Sensitivity Raman Spectroscopy,” *Appl. Spectros.*, **1987**, 41, 126.
 52. C.C. Jan and R.L. McCreery, “Spectroelectrochemical Analysis of Trace Materials by Diffusion Layer Imaging,” *J. Electronanal. Chem.*, **1987**, 220, 41.
 53. M. Poon and R.L. McCreery, “Repetitive *In-situ* Renewal and Activation of Carbon and Platinum Electrodes: Applications to Pulse Voltammetry,” *Anal. Chem.*, **1987**, 59, 1615.
 54. R.T. Packard and R.L. McCreery, “High Sensitivity Normal and Resonance Raman Spectroscopy: Applications to Transient Electrochemistry,” *Anal. Chem.*, **1987**, 59, 2631.
 55. S.A. Schuette and R.L. McCreery, “Hydrodynamically Modulated Alternating Current Voltammetry,” *Anal. Chem.*, **1987**, 59, 2692.

56. R. Bowling and R. L. McCreery, "Diagnosis of Adsorption with Semi-Integral Voltammetry," *Anal. Chem.*, **1988**, 60, 605.
- 57.* R. L. McCreery, "Electronic and Vibrational Spectroscopy of Electrode Surfaces," *Prog. in Anal. Spectros.*, **1988**, 11, 141.
58. M. Poon and R.L. McCreery, "Laser Activation of Carbon Electrodes: Relationship Between Laser Induced Surface Effects and Electron Transfer Activation," *Anal. Chem.*, **1988**, 60, 1725.
59. R.T. Packard and R.L. McCreery, "Raman Monitoring of Reactive Electrogenerated Species: Kinetics of Halide Addition to Orthoquinones," *J. Phys. Chem.*, **1988**, 92, 6345.
60. R. Bowling, R.T. Packard, and R.L. McCreery, "Raman Spectroscopy of Carbon Electrodes: Correlation Between Defect Density and Heterogeneous Electron Transfer Rate," *J. Electrochem. Soc.*, **1988**, 135, 1605.
61. D.T. Witiak, S.K. Kim, A.K. Tehim, K.D. Sternitzke, R.L. McCreery, S.U. Kim, D.R. Feller, K.J. Romstedt, V.S. Kamanna, and H.A. Newman, "Synthetic aci-reductones: 3,4-Dihydroxy-2H-1-benzopyran-2-ones and their cis- and trans-4a,5,6,7,8,8a-Hexahydro Diastereomers. Antiaggregatory, Antilipidemic, and Redox Properties Compared to Those of the 4-Substituted 2-Hydroxytetronic Acids," *J. Med. Chem.*, **1988**, 31 1437.
62. A.L. Deputy and R.L. McCreery, "Spatially Resolved Spectroelectro-Chemistry for Examining an Electrochemically Initiated Homogeneous Electron Transfer Reaction," *J. Electroanal. Chem.*, **1988**, 257, 57.
63. R. Bowling, R. Packard, and R.L. McCreery, "Activation of Highly Ordered Pyrolytic Graphite for Heterogeneous Electron Transfer: Relationship between Electrochemical Performance and Carbon Microstructure," *J. Am. Chem. Soc.*, **1989**, 111, 1217.
64. H-P. Wu and R.L. McCreery, "Spatially Resolved Absorption Spectro-electrochemistry: Spectra and Concentration Profiles of Species Generated and Consumed at Single and Twin Electrodes," *J. Electrochem. Soc.*, **1989**, 136, 1375.
65. J. Williamson, R. Bowling, and R.L. McCreery, "Near Infrared Raman Spectroscopy with a 783 nm Diode Laser and CCD Array Detector," *Appl. Spectros.*, **1989**, 43, 372.
66. R. Bowling, R.T. Packard, and R.L. McCreery, "Mechanism of Electrochemical Activation of Carbon Electrodes: Role of Graphite Lattice Defects," *Langmuir*, **1989**, 5, 683.
67. R. Rice, C. Allred, and R.L. McCreery, "Fast Heterogeneous Electron Transfer Rates for Glassy Carbon Electrodes without Polishing or Activation Procedures," *J. Electroanal. Chem.*, **1989**, 263, 163.

- 68.* R.L. McCreery and R.T. Packard, "Raman Monitoring of Dynamic Electrochemical Events," *Anal. Chem.*, **1989**, 61, 775A.
69. R. J. Rice and R.L. McCreery, "Quantitative Relationship between Electron Transfer Rate and Surface Microstructure of Laser-Modified Graphite Electrodes," *Anal. Chem.*, **1989**, 61, 1637.
70. K. Sternitzke, R.L. McCreery, C. Bruntlett, and P.T. Kissinger, "*In Situ* Laser Activation of Glassy Carbon Electrochemical Detectors for Liquid Chromatography: Demonstration of Improved Reversibility and Detection Limits," *Anal. Chem.*, **1989**, 61, 1989.
71. H-P. Wu and R.L. McCreery, "Observation of Concentration Profiles at Cylindrical Microelectrodes by a Combination of Spatially Resolved Absorption Spectroscopy and the Abel Inversion," *Anal. Chem.*, **1989**, 61, 2347.
72. Y. Wang and R. L. McCreery, "Evaluation of a Diode Laser/Charge Coupled Device Spectrometer for Near-Infrared Raman Spectroscopy," *Anal. Chem.*, **1989**, 61, 2647.
73. R. Bowling, R.L. McCreery, C.M. Pharr, and R.C. Engstrom, "Observation of Kinetic Heterogeneity on Highly Ordered Pyrolytic Graphite Using Electrogenerated Chemiluminescence," *Anal. Chem.* **1989**, 61, 2763.
74. M. Callstrom, R.L. McCreery, D. Alsmeyer, and T. Neenan, "Doped Glassy Carbon Materials: Their Synthesis and Investigation of Their Properties," *Polym. Mater. Sci. Eng.*, **1989**, 61, 921.
75. A. Deputy and R.L. McCreery, "Spatially Resolved Absorption Examination of the Redox Catalysis Mechanism: Equilibrium and Near-Equilibrium Cases," *J. Electroanal. Chem.*, **1990**, 285, 1.
76. A. Deputy, H-P. Wu, and R.L. McCreery, "Spatially Resolved Spectro-electrochemical Examination of the Oxidation of Dopamine by Chlorpromazine Cation Radical," *J. Phys. Chem.*, **1990**, 94, 3620.
77. R.J. Rice, N. Pontikos, and R.L. McCreery, "Quantitative Correlations of Heterogeneous Electron Transfer Kinetics with Surface Properties of Glassy Carbon Electrodes," *J. Am. Chem. Soc.* **1990**, 112, 4617.
78. M.R. Callstrom, T.X. Neenan, R.L. McCreery, and D.C. Alsmeyer, "Doped Glassy Carbon Materials (DGC): Low Temperature Synthesis, Structure and Catalytic Behavior," *J. Am. Chem. Soc.* **1990**, 112, 4954.
79. C. D. Allred and R.L. McCreery, "Near Infra-red Raman Spectroscopy of Liquids and Solids with a Fiber-Optic Sampler, Diode Laser, and CCD Detector," *Appl. Spectros.* **1990**, 44, 1229.

80. K.D. Sternitzke and R.L. McCreery, "Laser Microfabrication and Activation of Graphite and Glassy Carbon Electrodes," *Anal. Chem.*, **1990**, 62, 1339.
81. P.J. Treado, A. Govil, M.D. Morris, K. Sternitzke, and R.L. McCreery, "Hadamard Transform Raman Microscopy of Laser Modified Graphite Electrodes," *Appl. Spectros.*, **1990**, 44, 1270.
82. Y. Wang, D. Alsmeyer, and R.L. McCreery, "Raman Spectroscopy of Carbon Materials: Structural Basis of Observed Spectra," *Chem. Mater.*, **1990**, 2, 557.
- 83.* R.L. McCreery, "Carbon Electrodes: Structural Effects on Electron Transfer Kinetics," in Electroanalytical Chemistry, A.J. Bard (Ed.), Dekker, NY, **1991**, Vol. 17, pp. 221-374.
84. Y.W. Alsmeyer and R.L. McCreery, "Surface Enhanced Raman Spectroscopy of Carbon Electrodes following Silver Electrodeposition," *Anal. Chem.*, **1991**, 63, 1289.
85. R.S. Robinson, K. Sternitzke, and R.L. McCreery, "Scanning Tunneling Microscopy of Laser Activated Carbon Electrodes Used in Studies of Electrochemical Charge Transfer Reactions," *J. Vac. Sci. Technol. B*, **1991**, 9, 960.
86. R.S. Robinson, K. Sternitzke, M.T. McDermott, and R.L. McCreery, "Morphology and Electrochemical Effects of Defects on Highly Ordered Pyrolytic Graphite," *J. Electrochem. Soc.*, **1991**, 138, 2412.
87. R.J. Rice and R.L. McCreery, "Effects of Wavelength, Pulse Duration, And Power Density on Laser Activation of Glassy Carbon Electrodes," *J. Electroanal. Chem.*, **1991**, 310, 127.
88. Y.W. Alsmeyer and R.L. McCreery, "Surface Enhanced Raman Examination of Carbon Electrodes: Effects of Laser Activation and Electrochemical Pretreatment," *Langmuir*, **1991**, 7, 2370.
89. N.L. Pocard, D.C. Alsmeyer, R.L. McCreery, T.X. Neenan, and M.R. Callstrom, "Nanoscale Platinum(0) Clusters in Glassy Carbon: Synthesis, Characterization, and Uncommon Catalytic Activity," *J. Am. Chem. Soc.*, **1992**, 114, 769.
90. C.D. Allred and R.L. McCreery, "Adsorption of Catechols on Fractured Glassy Carbon Electrode Surfaces," *Anal. Chem.* **1992**, 64, 444.
91. C.D. Newman, G.G. Bret, and R.L. McCreery, "Fiber Optic Sampling Combined with an Imaging Spectrograph for Routine Raman Spectroscopy," *Appl. Spectros.*, **1992**, 46, 262.
92. M.T. McDermott, K. Kneten, and R.L. McCreery, "Anthraquinonedisulfonate Adsorption, Electron-Transfer Kinetics, and Capacitance on Ordered Graphite Electrodes: The Important Role of Surface Defects," *J. Phys. Chem.* **1992**, 96, 3124.

93. N.M. Pontikos and R.L. McCreery, "Microstructural and Morphological Changes Induced in Glassy Carbon Electrodes by Laser Irradiation," *J. Electroanal. Chem.*, **1992**, 324, 229.
94. D.C. Alsmeyer and R.L. McCreery, "*In Situ* Raman Monitoring of Electrochemical Graphite Intercalation and Lattice Damage in Mild Aqueous Acids," *Anal. Chem.* **1992**, 64, 1528.
95. K.R. Kneten and R.L. McCreery, "Effects of Redox System Structure on Electron-Transfer Kinetics at Ordered Graphite and Glassy Carbon Electrodes," *Anal. Chem.*, **1992**, 64, 2518.
96. N.L. Pocard, D.C. Alsmeyer, R.L. McCreery, T.X. Neenan, and M.R. Callstrom, "Doped Glassy Carbon: A New Material for Electrocatalysis," *J. Mater. Chem.*, **1992**, 2, 771.
- 97.+ R.L. McCreery, "NIR/CCD Raman Spectroscopy: Second Battle of a Revolution?," *Proc. SPIE-Int. Soc. Opt. Eng.*, **1992**, 1439, 25.
98. R.L. McCreery, M.R. Callstrom, D.C. Alsmeyer, M.T. McDermott, and K.R. Kneten, "Application of Raman Spectroscopy to the Study of Carbon Surfaces Including Platinum-Modified Doped Glassy Carbon," *Proc. Electrochem. Soc.*, **1992**, 92, 324.
99. H.D. Hutton, D.C. Alsmeyer, R.L. McCreery, T.X. Neenan, and M.R. Callstrom, "Synthesis, Characterization and Electrochemical Activity of Halogen-Doped Glassy Carbon," *Polym. Mater. Sci. Eng.*, **1992**, 67, 237.
100. W. Huang and R.L. McCreery, "Electron Transfer Kinetics of $\text{Fe}(\text{CN})_6^{-3/4}$ on Laser-Activated and CN⁻-modified Pt Electrodes," *J. Electroanal. Chem.*, **1992**, 326, 1.
101. M.T. McDermott, C.A. McDermott, and R.L. McCreery, "Scanning Tunneling Microscopy of Carbon Surfaces: Relationships between Electrode Kinetics, Capacitance, and Morphology for Glassy Carbon Electrodes," *Anal. Chem.*, **1993**, 65, 937.
102. C.J. Frank, R.L. McCreery, D.C.B. Redd, and T.S. Gansler, "Detection of Silicone in Lymph Node Biopsy Specimens by Near-Infrared Raman Spectroscopy," *Appl. Spectros.*, **1993**, 47, 387.
103. R.K. Jaworski and R.L. McCreery, "Laser-Induced Transient Currents on Glassy Carbon Electrodes," *J. Electrochem. Soc.*, **1993**, 140, 1360.
104. H.D. Hutton, W. Huang, D.C. Alsmeyer, J. Kometani, R.L. McCreery, T.X. Neenan, and M.R. Callstrom, "Synthesis, Characterization, and Electrochemical Activity of Halogen-Doped Glassy Carbon," *Chem. Mater.*, **1993**, 5, 1110.

105. C.A. McDermott, K.R. Kneten, and R.L. McCreery, "Electron Transfer Kinetics of Aqueated $\text{Fe}^{+3/+2}$, $\text{Eu}^{+3/+2}$ and $\text{V}^{+3/+2}$ at Carbon Electrodes: Inner Sphere Catalysis by Surface Oxides," *J. Electrochem. Soc.*, **1993**, 140, 2593.
106. H.D. Howard, H.L. Pocard, D.C. Alsmeyer, O.J.A Schueller, R.J. Spontak, M.E. Huston, W. Huang, R.L. McCreery, T.X. Neenan, and M.R. Callstrom, "Preparation of Nanoscale Platinum(0) Clusters in Glassy Carbon and Their Catalytic Activity," *Chem. Mater.*, **1993**, 5, 1727.
107. M. Fryling, C.J. Frank, and R.L. McCreery, "Intensity Calibration and Sensitivity Comparisons for CCD/Raman Spectrometers," *Appl. Spectro.*, **1993**, 47, 1965 (feature article).
108. C.J. Frank, D.C.B. Redd, T.S. Gansler, and R.L. McCreery, "Characterization of Human Breast Biopsy Specimens with Near-IR Raman Spectroscopy," *Anal. Chem.*, **1994**, 66, 319.
109. R.L. McCreery, "CCD Array Detectors for Multichannel Raman Spectroscopy," in Charge Transfer Devices in Spectroscopy, J. Sweedler, K. Ratzlaff, and M. Denton, (Eds.), VCH, NY, **1994**, pp 227-279.
110. K.K. Cline, M.T. McDermott, and R.L. McCreery, "Anomalously Slow Electron Transfer at Ordered Graphite Electrodes: Influence of Electronic Factors and Reactive Sites," *J. Phys. Chem.*, **1994**, 98, 5314.
111. R.K. Jaworski and R.L. McCreery, "Laser Activation of Carbon Microdisk Electrodes: Surface Oxide Effects on $\text{Ru}(\text{NH}_3)_6^{2+/3+}$ Kinetics," *J. Electroanal. Chem.*, **1994**, 369, 175.
112. M.T. McDermott and R.L. McCreery, "Scanning Tunneling Microscopy of Ordered Graphite and Glassy Carbon Surfaces: Electronic Control of Quinone Adsorption," *Langmuir*, **1994**, 10, 4307.
113. M.R. Kagan and R.L. McCreery, "Reduction of Fluorescence Interference in Raman Spectroscopy via Analyte Adsorption on Graphitic Carbon," *Anal. Chem.*, **1994**, 66, 4159.
114. R.L. McCreery, K.K. Cline, C.A. McDermott, and M.T. McDermott, "Control of Reactivity at Carbon Electrode Surfaces," *Colloids & Surf.*, **1994**, 93, 211.
115. C.J. Frank, R.L. McCreery, and D.C.B. Redd, "Raman Spectroscopy of Normal and Diseased Human Breast Tissues," *Anal. Chem.*, **1995**, 67, 777.
116. M.A. Fryling, J. Zhao, and R.L. McCreery, "Resonance Raman Observation of Surface Carbonyl Groups on Carbon Electrodes Following Dinitrophenylhydrazine Derivatization," *Anal. Chem.*, **1995**, 67, 967.

- 117.+ R.L. McCreery, "Carbon Electrode Surface Chemistry: Optimization of Bioanalytical Performance," in Voltammetric Methods in Brain Systems, A.A. Boulton, G.B. Baker, R.N. Adams (Eds.), Humana Press, Totowa, NJ, **1995**, pp 1-26.
118. P. Chen, M.A. Fryling, R.L. McCreery, "Electron Transfer Kinetics at Modified Carbon Electrode Surfaces: The Role of Specific Surface Sites," *Anal. Chem.*, **1995**, 67, 3115.
- 119.+ M.R. Callstrom and R.L. McCreery, "Glassy Carbon Containing Metal Particles and Its Use on an Electrode in an Electrochemical Cell Where the Particles are Less than 10 nm," U.S. Patent #5,453,169; September 26, 1995.
120. Y-C. Liu and R.L. McCreery, "Reactions of Organic Monolayers on Carbon Surfaces Observed with Unenhanced Raman Spectroscopy," *J. Am. Chem. Soc.*, **1995**, 117, 11254.
121. J. Zhao and R.L. McCreery, "Polarized Raman Spectroscopy of Metallophthalocyanine Monolayers on Carbon Surfaces," *Langmuir*, **1995**, 11, 4036.
122. M.R. Kagan and R.L. McCreery, "Quantitative Surface Raman Spectroscopy of Physisorbed Monolayers on Glassy Carbon," *Langmuir*, **1995**, 11, 4041.
123. R.D. Herrick II, A.S. Kaplan, B.K. Chinh, M.J. Shane, M.J. Sailor, K.L. Kavanagh, R.L. McCreery, and J. Zhao, "Room-Temperature Electrosynthesis of Carbonaceous Fibers," *Adv. Mater.*, **1995**, 7, 398.
- 124.+ R.L. McCreery and K.K. Cline, "Carbon Electrodes," in Laboratory Techniques in Electroanalytical Chemistry, P.T. Kissinger and W.R. Heineman (Eds.), Dekker, NY, **1996**, pp. 293-332.
- 125.+ R.L. McCreery, "Analytical Raman Spectroscopy: an Emerging Technology for Practical Applications," *Amer. Lab.*, Feb. **1996**, p. 34x.
126. R.L. McCreery, "Modern Techniques in Raman Spectroscopy," in Instrumentation for Dispersive Raman Spectroscopy, J.J. Laserna (Ed.), John Wiley & Sons, NY, **1996**, pp. 41-72.
127. J. Xu, W. Huang, and R.L. McCreery, "Isotope and Surface Preparation Effects on Alkaline Dioxygen Reduction at Carbon Electrodes," *J. Electroanal. Chem.*, **1996**, 410, 235-242.
128. J. Zhao and R.L. McCreery, "Multichannel Fourier Transform Raman Spectroscopy: Combining the Advantages of CCD with Interferometry," *Appl. Spectros.*, **1996**, 50, 1209-1214.
129. P. Chen and R.L. McCreery, "Control of Electron Transfer Kinetics at Glassy Carbon Electrodes by Specific Surface Modification," *Anal. Chem.*, **1996**, 68, 3958.

130. K.G. Ray and R.L. McCreery, "Simplified Calibration of Instrument Response Function for Raman Spectrometers Based on Luminescent Intensity Standards," *Appl. Spectros.*, **1997**, 51, 108-116.
131. Y-C Liu and R.L. McCreery, "Raman Spectroscopic Determination of the Structure and Orientation of Organic Monolayers Chemisorbed on Carbon Electrode Surfaces," *Anal. Chem.*, **1997**, 69, 2091.
132. K.G. Ray and R.L. McCreery, "Spatially Resolved Raman Spectroscopy of Carbon Electrode Surfaces: Observations of Structural and Chemical Heterogeneity," *Anal. Chem.*, **1997**, 69, 4680-4687.
133. J. Zhao and R.L. McCreery, "Multichannel FT-Raman Spectroscopy: Noise Analysis and Performance Assessment," *Appl. Spectros.*, **1997**, 51, 1687-1697.
134. R.L. McCreery, A.J. Horn, J. Spencer, and E. Jefferson, "Noninvasive Identification of Materials inside USP Vials with Raman Spectroscopy and a Raman Spectral Library," *J. Pharm. Sci.*, **1998**, 87, 1-8.
135. J. Zhao, G. Frankel and R.L. McCreery, "Corrosion Protection of Untreated AA-2024-T3 in Chloride Solution by a Chromate Conversion Coating Monitored with Raman Spectroscopy," *J. Electrochem. Soc.*, **1998**, 145, 2258-2264.
136. L. Xia and R.L. McCreery, "Chemistry of a Chromate Conversion Coating on Aluminum Alloy AA2024-T3 Probed by Vibrational Spectroscopy," *J. Electrochem. Soc.*, **1998**, 145, 3083-3089.
137. K.J. Frost and R.L. McCreery, "Calibration of Raman Spectrometer Instrument Response Function with Luminescence Standards: An Update," *Appl. Spectros.*, **1998**, 52, 1614-1618.
138. T.-C. Kuo and R.L. McCreery, "Surface Chemistry and Electron-Transfer Kinetics of Hydrogen-Modified Glassy Carbon Electrodes," *Anal. Chem.*, **1999** 71, 1553-1560.
139. T.-C. Kuo, R.L. McCreery, and G.M. Swain, "Electrochemical Modification of Boron-Doped Chemical Vapor Deposited Diamond Surfaces with Covalently Bonded Monolayers," *Electrochem. Solid State Letters*, **1999**, 2, 288-291.
140. R.L. McCreery, "Electrochemical Properties of Carbon Surfaces," In: Interfacial Electrochemistry, A. Wieckowski, (Ed.), Dekker: NY, **1999**, Chapter 35, pp. 631-647.
- 141.+ S. DuVall, H-H. Yang, and R.L. McCreery, "Control of Electron Transfer Kinetics of Organic Redox Systems on Carbon Electrodes," In: New Directions in Electroanalytical Chemistry II, J. Leddy, P. Vanysek, M.D. Porter, *Proc. Electrochem. Soc.*, **1999**, 99, 33-36.

142. K. Ray and R.L. McCreery, "Characterization of the Surface Carbonyl and Hydroxyl Coverage on Glassy Carbon Electrodes Using Raman Spectroscopy," *J. Electroanal. Chem.*, **1999**, 469, 150-158.
143. S. Ranganathan, T-C. Kuo, and R.L. McCreery, "Facile Preparation of Active Glassy Carbon Electrodes with Activated Carbon and Organic Solvents," *Anal. Chem.*, **1999**, 71, 3574-3580.
144. J.D. Ramsey and R.L. McCreery, "In-situ Raman Microscopy of Chromate Effects on Corrosion Pits in Aluminum Alloy," *J. Electrochem Soc.*, **1999**, 146, 4076-4081.
145. L. Xia and R.L. McCreery, "Structure and Function of Ferricyanide in the Formation of Chromate Conversion Coatings on Aluminum Aircraft Alloy," *J. Electrochem Soc.*, **1999**, 146, 3696-3701.
146. H-H. Yang and R.L. McCreery, "Effects of Surface Monolayers on the Electron Transfer Kinetics and Adsorption of Methyl Viologen and Phenothiazine Derivatives on Glassy Carbon Electrodes," *Anal. Chem.*, **1999**, 71, 4081-4087.
147. S.H. DuVall and R.L. McCreery, "Control of Catechol and Hydroquinone Electron Transfer Kinetics on Native and Modified Glassy Carbon Electrodes," *Anal. Chem.*, **1999**, 71, 4594-4602.
148. R.L. McCreery, "Raman Spectroscopy for Chemical Analysis," in Wiley Chemical Analysis Series, Vol. 157, J. Winefordner, Ed., 420 + xxiv pages, John Wiley, N.Y., **2000**, ISBN 0-471-25287-5.
149. S. Ranganathan, R. McCreery, S.M. Majji, and M. Madou, "Photoresist-Derived Carbon for Microelectrochemical Applications," *J. Electrochem. Soc.*, **2000**, 147, 277-282.
150. S. DuVall and R.L. McCreery, "Self-catalysis by Catechols and Quinones During Heterogeneous Electron Transfer at Carbon Electrodes," *J. Am. Chem. Soc.*, **2000**, 122, 6759-6764.
151. L. Xia, E. Akiyama, G. Frankel, and R.L. McCreery, "Storage and Release of Soluble Hexavalent Chromium from Chromate Conversion Coatings," *J. Electrochem. Soc.*, **2000**, 147, 2556-2562.
152. H.-H. Yang and R.L. McCreery, "Elucidation of the Mechanism of Dioxygen reduction on Metal-Free Carbon Electrodes," *J. Electrochem. Soc.*, **2000**, 147, 3420-3428.
153. W.R. McGovern, P. Schmutz, R.G. Buchheit, and R.L. McCreery, "Formation of Chromate Conversion Coatings on Al-Cu-Mg Intermetallic Compounds and Alloys," *J. Electrochem Soc.*, **2000**, 147, 4494-4501.

154. S. Ranganathan and R.L. McCreery, "Electroanalytical Performance of Carbon Films with Near-Atomic Flatness," *Anal. Chem.*, **2001**, 73, 893-900.
155. R.L. McCreery, "Chemical Monolayer Construction and Devices Containing Same," U. S. Patent submitted 2001, awarded as U. S. Patent # 7,112,366 in **2006**
156. J.D. Ramsey, L. Xia, M.W. Kendig, and R.L. McCreery, "Raman Spectroscopic Analysis of the Speciation of Dilute Chromate Solutions," *Corros. Sci.*, **2001**, 43(8), 1557-1572.
157. J. Zhao, L. Xia, A. Sehgal, D. Lu, R.L. McCreery, and G.S. Frankel, "Effects of Chromate Conversion Coatings on Corrosion of Aluminum Alloy 2024-T3," *Surf. Coat. Technol.*, **2001**, 140, 51-57.
158. J. Ramsey, S. Ranganathan, R.L. McCreery, and J. Zhao, "Performance Comparisons of Conventional and Line-Focused Surface Raman Spectrometers," *Appl. Spectros.*, **2001**, 55(6), 767-773.
159. S. Ranganathan, I. Steidel, F. Anariba, and R.L. McCreery, "Covalently Bonded Organic Monolayers on a Carbon Substrate: A New Paradigm for Molecular Electronics," *Nano. Lett.*, **2001**, 1(9), 491- 494.
160. R. L. McCreery, "Photometric Standards for Raman Spectroscopy," In: Handbook of Vibrational Spectroscopy, J.M. Chalmers and P.R. Griffiths (Eds.), John Wiley & Sons, Ltd., Vol. 1, pp. 920-932 (**2002**).
161. W.J. Clark, J.D. Ramsey, R.L. McCreery, and G.S. Frankel, "A Galvanic Corrosion Approach to Investigating Chromate Effects on Aluminum Alloy 2024-T3," *J. Electrochem. Soc.*, **2002**, 149(5), B179-B185.
162. A.O. Solak, S. Ranganathan, T. Itoh, and R.L. McCreery, "Mechanism for Conductance Switching in Carbon-based Molecular Electronic Junctions," *Electrochem. Solid State Lett.*, **2002**, 5, E43- E46.
163. W. Clark and R.L. McCreery, "Inhibition of Corrosion-related Reduction processes via Chromium monolayer formation," *J. Electrochem. Soc.*, **2002**, 149(5), B379-B386.
164. T. Itoh and R.L. McCreery, "In Situ Raman Spectroelectrochemistry of Electron Transfer between Glassy Carbon and a Chemisorbed Nitroazobenzene Monolayer," *J. Am. Chem. Soc.*, **2002**, 124, 10894-10902.
165. F. Anariba and R.L. McCreery, "Electronic Conductance Behavior of Carbon-Based Molecular Junctions with Conjugated Structures," *J. Phys. Chem. B*, **2002**, 106, 10355-10362.

166. E. Akiyama, A.J. Markworth, J.K. McCoy, G.S. Frankel, L. Xia, and R.L. McCreery, "Storage and Release of Soluble Hexavalent Chromium from Chromate Conversion Coatings on Al Alloys: Kinetics of Release," *J. Electrochem. Soc.*, **2003**, 150, B83-B91.
167. A.O. Solak, L.R. Eichorst, W.J. Clark, and R.L. McCreery, "Modified Carbon Surfaces as 'Organic Electrodes' that Exhibit Conductance Switching," *Anal. Chem.*, **2003**, 75, 296-305. (Cover article)
168. B.L. Hurley and R.L. McCreery, "Raman Spectroscopy of Monolayers Formed from Chromate Corrosion Inhibitor on Copper Surfaces," *J. Electrochem. Soc.*, **2003**, 150, B367-B373.
169. F.A. Anariba, S.H. DuVall, and R.L. McCreery, "Mono- and Multilayer Formation by Diazonium Reduction on Carbon Surfaces Monitored with Atomic Force Microscopy 'Scratching'," *Anal. Chem.*, **2003**, 75, 3837-3844.
170. N.E. Hebert, B. Snyder, R.L. McCreery, W.G. Kuhr., and S.A. Brazill, "Performance of Pyrolyzed Photoresist Carbon Films in a Microchip Capillary Electrophoresis Device with Sinusoidal Voltammetric Detection," *Anal. Chem.*, **2003**, 75, 4562-4271.
171. R. McCreery, J. Dieringer, A.O. Solak, B. Snyder, A.M. Nowak, W.R. McGovern, and S. DuVall, "Molecular Rectification and Conductance Switching in Carbon-Based Molecular Junctions by Structural Rearrangement Accompanying Electron Injection," *J. Am. Chem. Soc.*, **2003**, 125, 10748-10758. Correction: *J. Am. Chem. Soc.* **2004**, 126, 6200.
172. Y. Koide, D.E. Walker, Jr., B.D. White, L.J. Brillson, T. Itoh, R.L. McCreery, M. Murakami, S. Kamiyama, H. Amano, and I. Akasaki, "Influence of Oxygen on Luminescence and Vibrational Spectra of Mg-Doped GaN," *Phys. Stat. Sol (b)*, **2003**, 240(2), 356-359.
173. A.M. Nowak and R.L. McCreery, "Characterization of Carbon/Nitroazobenzene/Titanium Molecular Electronic Junctions with Photoelectron and Raman Spectroscopy," *Anal. Chem.*, **2004**, 76, 1089-1097.
174. R. McCreery, "Special Issue: Molecular Electronics," *Interface (The Electrochemical Society)*, **2004**, 13(1), 25. Article entitled "Carbon Based Molecular Electronic Junctions", pp 46-51. (Cover article)
175. B.L. Hurley and R.L. McCreery, "Covalent Bonding of Organic Molecules to Cu and Al Alloy 2024 T3 Surfaces via Diazonium Ion Reduction," *J. Electrochem. Soc.*, **2004**, 151(5), B252-B259.
176. J.J. Blackstock, A. A. Rostami, A.M. Nowak, R.L. McCreery, M. Freeman, M. T. McDermott, "Ultraflat Carbon Film Electrodes Prepared by Electron Beam Evaporation," *Anal. Chem.*, **2004**, 76, 2544-2552.

177. J.D. Ramsey and R.L. McCreery, "Raman Microscopy of Chromate Interactions with Corroding Aluminum Alloy 2024-T3," *Corrosion Sci.*, **2004**, 46(7), 1729-1739.
178. R.L. McCreery, "Molecular Electronic Junctions" *Chemistry of Materials*, **2004**, 16, 4477-4496
179. A.M. Nowak, R.L. McCreery "In-Situ Raman Spectroscopy of Bias-Induced Structural Changes in Nitroazobenzene Molecular Electronic Junctions". *J. Am. Chem. Soc.* **2004**, 126, 16621-16631
180. R.L. McCreery, "Chemical Monolayer Memory Device," **2005**, U.S. Patent #6,855,417.
181. R.L. McCreery, "Method for Conductance Switching in Molecular Electronic Junctions," **2005**, U.S. Patent #6,855,950.
182. W.R. McGovern, F. Anariba, R.L. McCreery, "Importance of oxides in carbon/molecule/metal molecular junctions with titanium and copper top contacts", *J. Electrochem. Soc.* **2005**, 152, E176-E183
183. F. Anariba, J. Steach, R.L. McCreery, "Strong effects of Molecular Structure on Electron Transport in Carbon/Molecule/Copper Electronic Junctions. *J. Phys. Chem. B.* **2005**, 109, 11163-11172
184. R.L. McCreery, "Pixel Array," **2005**, U.S. Patent #6,919,128 B2.
185. R. P. Kalakodimi, Aletha Nowak, R. L. McCreery, Carbon/Molecule/Metal and Carbon/Molecule/Metal Oxide Molecular Electronic Junctions, *Chem. Mater.* **2005**, 17, 4939-4948
186. S. Ssenyange, F. Anariba, D. F. Bocian, R. L. McCreery, "Covalent Bonding of Alkene and Alkyne Reagents to Graphitic Carbon Surfaces" *Langmuir*, **2005**, 21, 11105-11112
187. R L. McCreery, U. Viswanathan, R. P. Kalakodimi, A. M. Nowak, Carbon/molecule/metal molecular electronic junctions: the importance of "contacts" *Faraday Discuss.*, **2006**, 131, 33-43
188. R L. McCreery, "Chemical Monolayer Field Emitter Device," U.S. Patent #7,019,449 B2, **2006**
189. R.L. McCreery, "Micro-electronic junctions and devices containing same", U.S. Patent # 7,042,006 B2, **2006**
190. F. Anariba, U. Viswanathan, D. Bocian, and R.L. McCreery, "Determination of the Structure and Orientation of Organic Molecules Tethered to Flat Graphitic Carbon by ATR-FT-IR and Raman Spectroscopy" *Anal. Chem.*, **2006**, 78, 3104-3112

191. R. L. McCreery, J. Wu and R. P. Kalakodimi, "Electron Transport and Redox Reactions in Carbon Based Molecular Electronic Junctions" *Phys. Chem. Chem. Phys.*, **2006**, 8, 2572 – 2590
192. R.L. McCreery, "Electronic Junction Devices Featuring Redox Electrodes", U.S. Patent No. 7,141,299, **2006**
193. Solomon Ssenyange, Haijun Yan, and R. L. McCreery, "Redox-Driven Conductance Switching via Filament Formation and Dissolution in Carbon/Molecule/TiO₂/Ag Molecular Electronic Junctions", *Langmuir*, **2006**, 22, 10689-10696
194. R.L. McCreery, "Analytical Challenges in Molecular Electronics", *Analyt. Chem.* **2006**, 78, 3490-3497 (Feature article)
195. Jing Wu, Ken Mobley, R.L. McCreery, "Electronic characteristics of fluorene/TiO₂ molecular heterojunctions" *J. Chem. Phys.* **2007**, 126, 024704
196. Takashi Itoh, R. L. McCreery, "In situ Raman spectroelectrochemistry of azobenzene monolayers on glassy carbon", *Analytical and Bioanalytical Chemistry*, **2007**, 388, 131-134
197. Haihe Liang, Hong Tian, R.L. McCreery, "Normal and Surface Enhanced Raman Spectroscopy of Nitroazobenzene Submonolayers and Multilayers on Carbon and Silver Surfaces"; *Appl. Spectros.* **2007**, 61, 613.
198. Hong Tian, Adam Johan Bergren, R.L. McCreery, "Ultraviolet-visible spectroelectrochemistry of chemisorbed molecular layers on optically transparent carbon electrodes"; *Appl. Spectros.* **2007**, 61, 1246-1253
199. Andrew Bonifas, R.L. McCreery, "In-Situ Optical Absorbance Spectroscopy of Molecular Layers in Carbon Based Molecular Electronic Devices", *Chemistry of Materials*, **2008**, 20, 3849-3856
200. R.L. McCreery, "Advanced Carbon Electrode Materials for Molecular Electrochemistry" *Chemical Reviews*, **2008**, 108, 2646-2687 (invited)
201. Adam Bergren, Kenneth Harris, Fengjun Deng, and R. L. McCreery, "Molecular Electronics using Diazonium-Derived Adlayers on Carbon with Cu Top Contacts: Critical Analysis of Metal Oxides and Filaments", *J. Phys. Cond. Mat.* **2008**, 20, 374117 (invited)
202. Sudip Barman, Fengjun Deng, R.L. McCreery, "Conducting Polymer Memory Devices Based on Dynamic Doping", *J. Am. Chem. Soc.*, **2008**, 130, 11073-11081

203. Jing Wu, R.L. McCreery, "Solid-State Electrochemistry in Molecule/TiO₂ Molecular Heterojunctions as the Basis of the TiO₂ 'Memristor'", *J. Electrochem. Soc.*, **2009**, 156, 29-37
204. Lian Shoute, Adam Bergren, Amr Mahmoud, Ken Harris, R.L. McCreery, "Optical Interference Effects in the Design of Substrates for Surface-Enhanced Raman Spectroscopy" *Applied Spectros.* **2009**, 63, 133-140 (accelerated paper, cover article)
205. Haijun Yan, R.L. McCreery. "Anomalous Tunneling in Carbon/Alkane/TiO₂/Gold Molecular Electronic Junctions: Energy Level Alignment at the Metal/Semiconductor Interface" *ACS Applied Materials & Interfaces* **2009**, 1, 443.
206. R.L. McCreery, A.J. Bergren, "Progress with Molecular Electronic Junctions: Meeting Experimental Challenges in Design and Fabrication" *Advanced Materials* 2009, 9999, NA.
207. A.M. Mahmoud, A.J. Bergren, R.L. McCreery, "Derivatization of Optically Transparent Materials with Diazonium Reagents for Spectroscopy of Buried Interfaces" *Analytical Chemistry* 2009, 81, 6972.
208. R.L. McCreery, "Electron Transport and Redox Reactions in Molecular Electronic Junctions" *ChemPhysChem* **2009**, 10, 2387-2391. (invited)
209. R.L. McCreery, "Electrochemical Concepts in Functional Materials" *Electrochemistry - The Electrochemical Society of Japan* **2010**, 78 (2), 103 (invited introduction).
210. A.P. Bonifas, R.L. McCreery, "'Soft' Au, Pt and Cu Contacts for Molecular Junctions through Surface-Diffusion-Mediated Deposition" *Nature Nanotechnology* **2010**, 5, 612-617.
211. A. J. Bergren, R.L. McCreery, S. R. Stoyanov, S. Gusarov, A. Kovalenko, "Electronic Characteristics and Charge Transport Mechanisms for Large Area Aromatic Molecular Junctions" *J. Phys. Chem. C* **2010**, 114 (37), 15806.
212. Jie Ru, Bryan Szeto, Andrew Bonifas, R.L. McCreery, "Microfabrication and Integration of Diazonium-Based Aromatic Molecular Junctions" *ACS Applied Materials & Interfaces* **2010**, 2, 3693-3701 (highlighted in Chemical and Engineering News, April 4, 2011, pp 41-42)
213. Peng Li, J. Chen, M. Malac, H. Yan, A. Bonifas, R.L. McCreery; "HRTEM and Nano-Beam Diffraction Analysis of Metal-Molecule Interface" *Microscopy and Microanalysis* **2010**, 16, 1896-1897
214. Lian C.T. Shoute, Nikola Pekas, Yiliang Wu, R.L. McCreery; "Redox Driven Conductance Changes for Resistive Memory" *Appl. Phys. A* **2011**, 102, 841-850.

215. A.J. Bergren and R. L. McCreery; "Analytical Chemistry in Molecular Electronics" *Annual Review of Analytical Chemistry* **2011**, 4(1), 173-195. Book chapter.
216. A.M. Mahmoud, A. J. Bergren, Nikola Pekas, R.L. McCreery; "Toward Integrated Molecular Electronic Devices: Characterization of Molecular Layer Integrity During Fabrication Processes" *Adv. Functional Materials* **2011**, 21(12), 2273-2281.
217. R.H. Kumar, H. Yan, R.L. McCreery and A. J. Bergren; "Electron-beam evaporated silicon as a top contact for molecular electronic device fabrication" *Physical Chemistry Chemical Physics* **2011**, 13 (32), 14318-14324.
218. A.P. Bonifas, R. L. McCreery, Ken Harris; "Thermal oxidation as a simple method to increase resolution in nanoimprint lithography" *Microelectronic Engineering* **2011**, 88 (11), 3256-3260.
219. A.P. Bonifas and R.L. McCreery; "Assembling Molecular Electronic Junctions One Molecule at a Time" *Nano Letters* **2011**, 11, 4725-4729.
220. Haijun Yan, A. J. Bergren and R.L. McCreery; "All-Carbon Molecular Tunnel Junctions" *Journal of the American Chemical Society* **2011**, 133, 19168-19177.
221. R.L. McCreery and A.J. Bergren, "Surface Functionalization in the Nanoscale Domain," in Nanofabrication: Techniques and Principles, Maria Stepanova and Steven Dew (Eds.), Springer, NY, **2012**, pp. 163-190.
222. R.L. McCreery; "The merger of electrochemistry and molecular electronics" *The Chemical Record* **2012**, 12, 149-163 (invited)
223. R.L. McCreery and M.T. McDermott; "Comment on Electrochemical Kinetics at Ordered Graphite Electrodes" *Analytical Chemistry* **2012**, 84, 2602-2605.
224. A.P. Bonifas and R.L. McCreery; "Solid State Spectroelectrochemistry of Redox Reactions in Polypyrrole/Oxide Molecular Heterojunctions" *Analytical Chemistry* **2012**, 84, 2459-2465.
225. R.L. McCreery, K.J. Mobley and J. Wu; "Electronic Junction Devices Featuring Redox Electrodes," **2010**, U.S. Patent #7,737,433 B2.
226. R.L. McCreery, A.J. Bergren, "Diazonium reagents in molecular electronics", chapter in "Aryl Diazonium Salts", ed. Mohamed Chehimi, Wiley-VCH, 2012, Chapter 10
227. S. Y. Sayed, J. A. Fereiro, H. Yan, R. L. McCreery and A.J. Bergren; "Charge transport in molecular electronic junctions: Compression of the molecular tunnel barrier in the strong coupling regime" *Proc. Nat. Acad. Sciences* **2012**, 109, 11498 (invited)
228. R. Kumar, R.G. Pillai, N. Pekas, Y. Wu and R.L. McCreery; "Spatially Resolved Raman

Spectroelectrochemistry of Solid-State Polythiophene/Viologen Memory Devices”
Journal of the American Chemical Society **2012**, 134, 14869-14876.