# John Newman

## List of Publications by Citations



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|---|---|---|---|
| 334 papers | 25,578 citations | 76 h-index | 154 g-index |
| 358 ext. papers | 28,286 ext. citations | 4.3 avg, IF | 7.18 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 334 | Modeling of Galvanostatic Charge and Discharge of the Lithium/Polymer/Insertion Cell. *Journal of the Electrochemical Society*, **1993**, 140, 1526-1533 | 3.9 | 2031 |
| 333 | Simulation and Optimization of the Dual Lithium Ion Insertion Cell. *Journal of the Electrochemical Society*, **1994**, 141, 1-10 | 3.9 | 1167 |
| 332 | Comparison of Modeling Predictions with Experimental Data from Plastic Lithium Ion Cells. *Journal of the Electrochemical Society*, **1996**, 143, 1890-1903 | 3.9 | 972 |
| 331 | The Impact of Elastic Deformation on Deposition Kinetics at Lithium/Polymer Interfaces. *Journal of the Electrochemical Society*, **2005**, 152, A396 | 3.9 | 924 |
| 330 | Porous-electrode theory with battery applications. *AICHE Journal*, **1975**, 21, 25-41 | 3.6 | 749 |
| 329 | Vapor-liquid equilibria in multicomponent aqueous solutions of volatile weak electrolytes. *AICHE Journal*, **1978**, 24, 966-976 | 3.6 | 577 |
| 328 | Discharge Model for the Lithium Iron-Phosphate Electrode. *Journal of the Electrochemical Society*, **2004**, 151, A1517 | 3.9 | 565 |
| 327 | Modeling transport in polymer-electrolyte fuel cells. *Chemical Reviews*, **2004**, 104, 4679-726 | 68.1 | 544 |
| 326 | Resistance for Flow of Current to a Disk. *Journal of the Electrochemical Society*, **1966**, 113, 501 | 3.9 | 529 |
| 325 | Water and Thermal Management in Solid-Polymer-Electrolyte Fuel Cells. *Journal of the Electrochemical Society*, **1993**, 140, 1218-1225 | 3.9 | 515 |
| 324 | Dendrite Growth in Lithium/Polymer Systems. *Journal of the Electrochemical Society*, **2003**, 150, A1377 | 3.9 | 501 |
| 323 | Stress generation and fracture in lithium insertion materials. *Journal of Solid State Electrochemistry*, **2006**, 10, 293-319 | 2.6 | 479 |
| 322 | The importance of the lithium ion transference number in lithium/polymer cells. *Electrochimica Acta*, **1994**, 39, 2073-2081 | 6.7 | 359 |
| 321 | Effects of Microporous Layers in Polymer Electrolyte Fuel Cells. *Journal of the Electrochemical Society*, **2005**, 152, A677 | 3.9 | 343 |
| 320 | Electrochemical removal of copper ions from very dilute solutions. *Journal of Applied Electrochemistry*, **1972**, 2, 113-122 | 2.6 | 318 |
| 319 | Design of an Electrochemical Cell Making Syngas (CO+H[sub 2]) from CO[sub 2] and H[sub 2]O Reduction at Room Temperature. *Journal of the Electrochemical Society*, **2008**, 155, B42 | 3.9 | 308 |
| 318 | Transport in Polymer-Electrolyte Membranes. *Journal of the Electrochemical Society*, **2004**, 151, A311 | 3.9 | 308 |

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| 317 | A Mathematical Model of Stress Generation and Fracture in Lithium Manganese Oxide. *Journal of the Electrochemical Society*, **2006**, 153, A1019 | 3.9 | 301 |
| 316 | Relaxation Phenomena in Lithium-Ion-Insertion Cells. *Journal of the Electrochemical Society*, **1994**, 141, 982-990 | 3.9 | 301 |
| 315 | The Impedance Response of a Porous Electrode Composed of Intercalation Particles. *Journal of the Electrochemical Society*, **2000**, 147, 2930 | 3.9 | 290 |
| 314 | Mass Transport in Gas-Diffusion Electrodes: A Diagnostic Tool for Fuel-Cell Cathodes. *Journal of the Electrochemical Society*, **1998**, 145, 5-15 | 3.9 | 273 |
| 313 | Desalting by Means of Porous Carbon Electrodes. *Journal of the Electrochemical Society*, **1971**, 118, 510 | 3.9 | 257 |
| 312 | Heat-Generation Rate and General Energy Balance for Insertion Battery Systems. *Journal of the Electrochemical Society*, **1997**, 144, 2697-2704 | 3.9 | 232 |
| 311 | Transport in Polymer-Electrolyte Membranes. *Journal of the Electrochemical Society*, **2003**, 150, A1008 | 3.9 | 231 |
| 310 | The Effect of Interfacial Deformation on Electrodeposition Kinetics. *Journal of the Electrochemical Society*, **2004**, 151, A880 | 3.9 | 228 |
| 309 | The use of mathematical modeling in the design of lithium/polymer battery systems. *Electrochimica Acta*, **1995**, 40, 2191-2196 | 6.7 | 227 |
| 308 | Modeling Two-Phase Behavior in PEFCs. *Journal of the Electrochemical Society*, **2004**, 151, A1715 | 3.9 | 216 |
| 307 | Thermal Modeling of the Lithium/Polymer Battery: I . Discharge Behavior of a Single Cell. *Journal of the Electrochemical Society*, **1995**, 142, 3274-3281 | 3.9 | 216 |
| 306 | A Mathematical Model for the Lithium-Ion Negative Electrode Solid Electrolyte Interphase. *Journal of the Electrochemical Society*, **2004**, 151, A1977 | 3.9 | 214 |
| 305 | Thermal Modeling of Porous Insertion Electrodes. *Journal of the Electrochemical Society*, **2003**, 150, A176 | 3.9 | 209 |
| 304 | Experimental Determination of the Transport Number of Water in Nafion 117 Membrane. *Journal of the Electrochemical Society*, **1992**, 139, 1332-1337 | 3.9 | 203 |
| 303 | Comparison between computer simulations and experimental data for high-rate discharges of plastic lithium-ion batteries. *Journal of Power Sources*, **2000**, 88, 219-231 | 8.9 | 202 |
| 302 | The Measurement of a Complete Set of Transport Properties for a Concentrated Solid Polymer Electrolyte Solution. *Journal of the Electrochemical Society*, **1995**, 142, 1859-1868 | 3.9 | 199 |
| 301 | Modeling of lithium-ion batteries. *Journal of Power Sources*, **2003**, 119-121, 838-843 | 8.9 | 194 |
| 300 | Coupled Thermal and Water Management in Polymer Electrolyte Fuel Cells. *Journal of the Electrochemical Society*, **2006**, 153, A2205 | 3.9 | 174 |

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| 299 | Schmidt Number Correction for the Rotating Disk. *The Journal of Physical Chemistry*, **1966**, 70, 1327-1328 | | 171 |
| 298 | Current Distribution on a Rotating Disk below the Limiting Current. *Journal of the Electrochemical Society*, **1966**, 113, 1235 | 3.9 | 170 |
| 297 | Existence of Path-Dependence in the LiFePO[sub 4] Electrode. *Electrochemical and Solid-State Letters*, **2006**, 9, A110 | | 160 |
| 296 | Two-Dimensional Modeling of Lithium Deposition during Cell Charging. *Journal of the Electrochemical Society*, **2009**, 156, A390 | 3.9 | 158 |
| 295 | Design and Optimization of a Natural Graphite/Iron Phosphate Lithium-Ion Cell. *Journal of the Electrochemical Society*, **2004**, 151, A1530 | 3.9 | 154 |
| 294 | Computer Simulations of the Impedance Response of Lithium Rechargeable Batteries. *Journal of the Electrochemical Society*, **2000**, 147, 99 | 3.9 | 152 |
| 293 | Physicochemical properties and toxicities of hydrophobic piperidinium and pyrrolidinium ionic liquids. *Fluid Phase Equilibria*, **2007**, 261, 421-426 | 2.5 | 149 |
| 292 | Cyclable Lithium and Capacity Loss in Li-Ion Cells. *Journal of the Electrochemical Society*, **2005**, 152, A818 | 3.9 | 145 |
| 291 | Heats of mixing and of entropy in porous insertion electrodes. *Journal of Power Sources*, **2003**, 119-121, 844-849 | 8.9 | 140 |
| 290 | Water-Nafion equilibria. absence of Schroeder's paradox. *Journal of Physical Chemistry B*, **2007**, 111, 10166-73 | | 139 |
| 289 | Simulation of the Direct Methanol Fuel Cell. *Journal of the Electrochemical Society*, **2002**, 149, A718 | 3.9 | 139 |
| 288 | Thermal Modeling of the Lithium/Polymer Battery: II . Temperature Profiles in a Cell Stack. *Journal of the Electrochemical Society*, **1995**, 142, 3282-3288 | 3.9 | 137 |
| 287 | Experiments on and Modeling of Positive Electrodes with Multiple Active Materials for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2009**, 156, A606 | 3.9 | 136 |
| 286 | Negative Transference Numbers in Poly(ethylene oxide)-Based Electrolytes. *Journal of the Electrochemical Society*, **2017**, 164, E3569-E3575 | 3.9 | 135 |
| 285 | Comparison of lithium-polymer cell performance with unity and nonunity transference numbers. *Journal of Power Sources*, **2000**, 89, 132-138 | 8.9 | 134 |
| 284 | Modeling Side Reactions in Composite Li y Mn2 O 4 Electrodes. *Journal of the Electrochemical Society*, **1998**, 145, 990-998 | 3.9 | 122 |
| 283 | Thermodynamics of aqueous solutions containing volatile weak electrolytes. *AICHE Journal*, **1975**, 21, 248-259 | 3.6 | 108 |
| 282 | Optimization of Porosity and Thickness of a Battery Electrode by Means of a Reaction-Zone Model. *Journal of the Electrochemical Society*, **1995**, 142, 97-101 | 3.9 | 107 |

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| 281 | Frequency Dispersion in Capacity Measurements at a Disk Electrode. *Journal of the Electrochemical Society*, **1970**, 117, 198 | 3.9 | 107 |
| 280 | Double-Layer Capacitance in a Dual Lithium Ion Insertion Cell. *Journal of the Electrochemical Society*, **1999**, 146, 4360-4365 | 3.9 | 103 |
| 279 | Modeling a Porous Intercalation Electrode with Two Characteristic Particle Sizes. *Journal of the Electrochemical Society*, **1997**, 144, 4201-4208 | 3.9 | 101 |
| 278 | Measurement of the Entropy of Reaction as a Function of State of Charge in Doped and Undoped Lithium Manganese Oxide. *Journal of the Electrochemical Society*, **2001**, 148, A570 | 3.9 | 100 |
| 277 | The Influence of Side Reactions on the Performance of Electrochemical Double-Layer Capacitors. *Journal of the Electrochemical Society*, **1996**, 143, 1806-1814 | 3.9 | 91 |
| 276 | Potential and Current Distribution in Electrochemical Cells: Interpretation of the Half-Cell Voltage Measurements as a Function of Reference-Electrode Location. *Journal of the Electrochemical Society*, **1993**, 140, 1961-1968 | 3.9 | 91 |
| 275 | Modeling the performance of rechargeable lithium-based cells: design correlations for limiting cases. *Journal of Power Sources*, **1995**, 54, 46-51 | 8.9 | 89 |
| 274 | A Flow-Through Porous Electrode Model: Application to Metal-Ion Removal from Dilute Streams. *Journal of the Electrochemical Society*, **1977**, 124, 1528-1540 | 3.9 | 88 |
| 273 | Transport in Polymer-Electrolyte Membranes. *Journal of the Electrochemical Society*, **2004**, 151, A326 | 3.9 | 87 |
| 272 | The Modulated Flow at a Rotating Disk Electrode. *Journal of the Electrochemical Society*, **1983**, 130, 2016-2026 | 3.9 | 85 |
| 271 | Modeling the Performance of Lithium-Ion Batteries and Capacitors during Hybrid-Electric-Vehicle Operation. *Journal of the Electrochemical Society*, **2008**, 155, A664 | 3.9 | 83 |
| 270 | Mathematical Modeling of Lithium Batteries **2002**, 345-392 | | 83 |
| 269 | Restricted diffusion in binary solutions. *AICHE Journal*, **1973**, 19, 343-348 | 3.6 | 83 |
| 268 | Numerical Solution of Coupled, Ordinary Differential Equations. *Industrial & Engineering Chemistry Fundamentals*, **1968**, 7, 514-517 | | 82 |
| 267 | Optimization of Lithium Titanate Electrodes for High-Power Cells. *Journal of the Electrochemical Society*, **2006**, 153, A560 | 3.9 | 81 |
| 266 | Molecular Dynamics Simulations of Multicomponent Diffusion. 1. Equilibrium Method. *Journal of Physical Chemistry B*, **2004**, 108, 18353-18361 | 3.4 | 81 |
| 265 | The effect of surfactant on the terminal and interfacial velocities of a bubble or drop. *AICHE Journal*, **1976**, 22, 695-701 | 3.6 | 81 |
| 264 | Comparison of LiFePO[sub 4] from Different Sources. *Journal of the Electrochemical Society*, **2005**, 152, A664 | 3.9 | 80 |

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| 263 | Analysis of Transference Number Measurements Based on the Potentiostatic Polarization of Solid Polymer Electrolytes. *Journal of the Electrochemical Society*, **1995**, 142, 3465-3468 | 3.9 | 80 |
| 262 | Review: An Economic Perspective on Liquid Solar Fuels. *Journal of the Electrochemical Society*, **2012**, 159, A1722-A1729 | 3.9 | 78 |
| 261 | Modeling of Nickel/Metal Hydride Batteries. *Journal of the Electrochemical Society*, **1997**, 144, 3818-3831 | 3.9 | 78 |
| 260 | The Use of UV/vis Absorption to Measure Diffusion Coefficients in LiPF[sub 6] Electrolytic Solutions. *Journal of the Electrochemical Society*, **2008**, 155, F13 | 3.9 | 78 |
| 259 | ENGINEERING DESIGN OF ELECTROCHEMICAL SYSTEMS. *Industrial and Engineering Chemistry*, **1968**, 60, 12-27 | | 76 |
| 258 | A theoretical study of membrane constraint in polymer-electrolyte fuel cells. *AICHE Journal*, **2004**, 50, 3215-3226 | 3.6 | 74 |
| 257 | Anodic Dissolution of Iron in Acidic Sulfate Electrolytes: II . Mathematical Model of Current Oscillations Observed under Potentiostatic Conditions. *Journal of the Electrochemical Society*, **1987**, 134, 1051-1059 | 3.9 | 74 |
| 256 | Free-Convection Mass Transfer with a Supporting Electrolyte. *Journal of the Electrochemical Society* , **1971**, 118, 1070 | 3.9 | 72 |
| 255 | Mechanical Deformation of a Lithium-Metal Anode Due to a Very Stiff Separator. *Journal of the Electrochemical Society*, **2014**, 161, A1350-A1359 | 3.9 | 71 |
| 254 | Relationship between Steady-State Current in Symmetric Cells and Transference Number of Electrolytes Comprising Univalent and Multivalent Ions. *Journal of the Electrochemical Society*, **2015** , 162, A2720-A2722 | 3.9 | 71 |
| 253 | Analysis of Electrochemical Lithiation and Delithiation Kinetics in Silicon. *Journal of the Electrochemical Society*, **2013**, 160, A394-A403 | 3.9 | 71 |
| 252 | A quick method of measuring the capacity versus discharge rate for a dual lithium-ion insertion cell undergoing cycling. *Journal of Power Sources*, **1994**, 52, 211-216 | 8.9 | 69 |
| 251 | Simulation of the Direct Methanol Fuel Cell. *Journal of the Electrochemical Society*, **2002**, 149, A710 | 3.9 | 67 |
| 250 | Equilibrium and diffusion of methanol and water in a nafion 117 membrane. *AICHE Journal*, **2000**, 46, 2076-2085 | 3.6 | 67 |
| 249 | Double layer structure at the limiting current. *Transactions of the Faraday Society*, **1967**, 63, 207 | | 67 |
| 248 | Hysteresis during Cycling of Nickel Hydroxide Active Material. *Journal of the Electrochemical Society* , **2001**, 148, A969 | 3.9 | 66 |
| 247 | High-power batteries for use in hybrid vehicles. *Journal of Power Sources*, **2000**, 85, 229-236 | 8.9 | 65 |
| 246 | Silicon Deposition on a Rotating Disk. *Journal of the Electrochemical Society*, **1980**, 127, 744-752 | 3.9 | 64 |

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| 245 | Simulation of the Direct Methanol Fuel Cell. *Journal of the Electrochemical Society*, **2002**, 149, A729 | 3.9 | 62 |
| 244 | Equilibrium Force Isotherms of a Deformable Bubble/Drop Interacting with a Solid Particle across a Thin Liquid Film. *Langmuir*, **2001**, 17, 116-130 | 4 | 61 |
| 243 | Experimental Investigation of a Porous Carbon Electrode for the Removal of Mercury from Contaminated Brine. *Journal of the Electrochemical Society*, **1986**, 133, 1850-1859 | 3.9 | 61 |
| 242 | Mathematical Modeling of CO[sub 2] Reduction to CO in Aqueous Electrolytes. *Journal of the Electrochemical Society*, **2010**, 157, B1902 | 3.9 | 60 |
| 241 | Measuring the Salt Activity Coefficient in Lithium-Battery Electrolytes. *Journal of the Electrochemical Society*, **2008**, 155, A458 | 3.9 | 59 |
| 240 | Simulation of Recombinant Lead-Acid Batteries. *Journal of the Electrochemical Society*, **1997**, 144, 3081-3091 | 3.9 | 58 |
| 239 | Predictions of Specific Energies and Specific Powers of Double-Layer Capacitors Using a Simplified Model. *Journal of the Electrochemical Society*, **2000**, 147, 820 | 3.9 | 56 |
| 238 | Current Distributions on Plane, Parallel Electrodes in Channel Flow. *Journal of the Electrochemical Society*, **1970**, 117, 43 | 3.9 | 56 |
| 237 | Experimental and Theoretical Investigation of Solid-Electrolyte-Interphase Formation Mechanisms on Glassy Carbon. *Journal of the Electrochemical Society*, **2012**, 159, A1775-A1785 | 3.9 | 55 |
| 236 | Periodic Behavior in the Iron/Sulfuric Acid System. *Journal of the Electrochemical Society*, **1995**, 142, 3770-3779 | 3.9 | 54 |
| 235 | Negative Stefan-Maxwell Diffusion Coefficients and Complete Electrochemical Transport Characterization of Homopolymer and Block Copolymer Electrolytes. *Journal of the Electrochemical Society*, **2018**, 165, A2766-A2773 | 3.9 | 54 |
| 234 | A transformation for the treatment of diffusion and migration. Application to stationary disk and hemisphere electrodes. *Journal of Electroanalytical Chemistry and Interfacial Electrochemistry*, **1991**, 314, 23-44 | | 53 |
| 233 | On the Short-Time Behavior of Porous Intercalation Electrodes. *Journal of the Electrochemical Society*, **1997**, 144, 3057-3063 | 3.9 | 51 |
| 232 | Optimizing the Performance of Lithium Titanate Spinel Paired with Activated Carbon or Iron Phosphate. *Journal of the Electrochemical Society*, **2008**, 155, A253 | 3.9 | 51 |
| 231 | Electrochemical Characterization of SEI-Type Passivating Films Using Redox Shuttles. *Journal of the Electrochemical Society*, **2011**, 158, A530 | 3.9 | 50 |
| 230 | Extension of the Le□veque Solution. *Journal of Heat Transfer*, **1969**, 91, 177-178 | 1.8 | 50 |
| 229 | Harvesting Waste Heat in Unipolar Ion Conducting Polymers. *ACS Macro Letters*, **2016**, 5, 94-98 | 6.6 | 49 |
| 228 | Molecular Dynamics Simulations of Surface Tensions of Aqueous Electrolytic Solutions. *Journal of Physical Chemistry B*, **2004**, 108, 9077-9084 | 3.4 | 49 |

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| 227 | Proton Intercalation Hysteresis in Charging and Discharging Nickel Hydroxide Electrodes. *Journal of the Electrochemical Society*, **1999**, 146, 2769-2779 | 3.9 | 48 |
| 226 | Maximum Effective Capacity in an Ohmically Limited Porous Electrode. *Journal of the Electrochemical Society*, **1975**, 122, 1482-1485 | 3.9 | 48 |
| 225 | Dynamic Monte Carlo Simulations of Diffusion in Li y Mn2 O 4. *Journal of the Electrochemical Society* , **1999**, 146, 3765-3772 | 3.9 | 47 |
| 224 | Engineering Analysis of Shape Change in Zinc Secondary Electrodes: I . Theoretical. *Journal of the Electrochemical Society*, **1976**, 123, 1616-1627 | 3.9 | 47 |
| 223 | Mass transfer at high Pčlet numbers for creeping flow in a packed-bed reactor. *AICHE Journal*, **1977**, 23, 255-263 | 3.6 | 47 |
| 222 | Effect of Ionic Migration on Limiting Currents. *Industrial & Engineering Chemistry Fundamentals*, **1966**, 5, 525-529 | | 47 |
| 221 | Equilibrium configurations of liquid droplets on solid surfaces under the influence of thin-film forces. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **1999**, 156, 137-144 | 5.1 | 46 |
| 220 | Modeling of a Growing Oxide Film: The Iron/Iron Oxide System. *Journal of the Electrochemical Society*, **1995**, 142, 1423-1430 | 3.9 | 46 |
| 219 | Current Oscillations Observed within the Limiting Current Plateau for Iron in Sulfuric Acid. *Journal of the Electrochemical Society*, **1986**, 133, 2093-2097 | 3.9 | 46 |
| 218 | Mathematical Modeling of the Lithium-Aluminum, Iron Sulfide Battery: I . Galvanostatic Discharge Behavior. *Journal of the Electrochemical Society*, **1981**, 128, 491-502 | 3.9 | 46 |
| 217 | The polarized diffuse double layer. *Transactions of the Faraday Society*, **1965**, 61, 2229 | | 46 |
| 216 | Verification and Analysis of Transference Number Measurements by the Galvanostatic Polarization Method. *Journal of the Electrochemical Society*, **2000**, 147, 3036 | 3.9 | 45 |
| 215 | Molecular Simulation of Disjoining-Pressure Isotherms for Free Liquid, Lennard-Jones Thin Films. *Journal of Physical Chemistry B*, **2002**, 106, 6529-6537 | 3.4 | 44 |
| 214 | Mass Transfer in Concentrated Binary Electrolytes. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1965**, 69, 608-612 | | 44 |
| 213 | Molecular Dynamics Simulations of Multicomponent Diffusion. 2. Nonequilibrium Method. *Journal of Physical Chemistry B*, **2004**, 108, 18362-18367 | 3.4 | 43 |
| 212 | Simulation of temperature rise in Li-ion cells at very high currents. *Journal of Power Sources*, **2014**, 271, 444-454 | 8.9 | 42 |
| 211 | Effect of Graphite Orientation and Lithium Salt on Electronic Passivation of Highly Oriented Pyrolytic Graphite. *Journal of the Electrochemical Society*, **2012**, 159, A634-A641 | 3.9 | 42 |
| 210 | Anodic Dissolution of Iron in Acidic Sulfate Electrolytes: I . Formation and Growth of a Porous Salt Film. *Journal of the Electrochemical Society*, **1986**, 133, 59-69 | 3.9 | 42 |

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| 209 | Ohmic Potential Measured by Interrupter Techniques. *Journal of the Electrochemical Society*, **1970**, 117, 507 | 3.9 | 42 |
| 208 | Whither solar fuels?. *Current Opinion in Chemical Engineering*, **2012**, 1, 204-210 | 5.4 | 41 |
| 207 | Temperature Rise in a Battery Module with Constant Heat Generation. *Journal of the Electrochemical Society*, **1995**, 142, 1054-1057 | 3.9 | 41 |
| 206 | Theoretical Analysis of the Discharge Performance of a NiOOH / H 2 Cell. *Journal of the Electrochemical Society*, **1994**, 141, 54-64 | 3.9 | 41 |
| 205 | Experimental Determination of the Passive-Active Transition for Iron in 1M Sulfuric Acid. *Journal of the Electrochemical Society*, **1983**, 130, 547-553 | 3.9 | 41 |
| 204 | Mathematical Modeling of CO[sub 2] Reduction to CO in Aqueous Electrolytes. *Journal of the Electrochemical Society*, **2010**, 157, B1911 | 3.9 | 40 |
| 203 | Mass Transfer and Kinetic Phenomena at the Nickel Hydroxide Electrode. *Journal of the Electrochemical Society*, **1998**, 145, 3860-3874 | 3.9 | 39 |
| 202 | Thermoelectric effects in electrochemical systems. *Industrial & Engineering Chemistry Research*, **1995**, 34, 3208-3216 | 3.9 | 38 |
| 201 | Cold Start of a Polymer-Electrolyte Fuel Cell I. Development of a Two-Dimensional Model. *Journal of the Electrochemical Society*, **2011**, 158, B927 | 3.9 | 37 |
| 200 | Variable Diffusivity in Intercalation Materials: A Theoretical Approach. *Journal of the Electrochemical Society*, **1996**, 143, 1287-1292 | 3.9 | 37 |
| 199 | Rapid aging and dynamic surface tension of dilute aqueous solutions. *Chemical Engineering Science*, **1971**, 26, 817-827 | 4.4 | 37 |
| 198 | Scaling with Ohm's Law; Wired vs. Wireless Photoelectrochemical Cells. *Journal of the Electrochemical Society*, **2013**, 160, F309-F311 | 3.9 | 36 |
| 197 | Calculation of the streaming potential near a rotating disk. *Langmuir*, **2006**, 22, 9765-9 | 4 | 36 |
| 196 | II. A combined model for determining capacity usage and battery size for hybrid and plug-in hybrid electric vehicles. *Journal of Power Sources*, **2008**, 183, 771-782 | 8.9 | 35 |
| 195 | Equilibrium configurations of liquid droplets on solid surfaces under the influence of thin-film forces: Part II. Shape calculations. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **1999**, 156, 525-546 | 5.1 | 34 |
| 194 | Engineering Analysis of Shape Change in Zinc Secondary Electrodes: II . Experimental. *Journal of the Electrochemical Society*, **1976**, 123, 1628-1637 | 3.9 | 34 |
| 193 | Molecular simulation of the surface tension of simple aqueous electrolytes and the Gibbs adsorption equation. *Current Opinion in Colloid and Interface Science*, **2004**, 9, 145-148 | 7.6 | 32 |
| 192 | Mass Transfer to a Rotating Disk in Transition Flow. *Journal of the Electrochemical Society*, **1976**, 123, 1687-1691 | 3.9 | 32 |

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| 191 | The Transient Response of a Disk Electrode. *Journal of the Electrochemical Society*, **1973**, 120, 1339 | 3.9 | 32 |
| 190 | Comparing Cycling Characteristics of Symmetric Lithium-Polymer-Lithium Cells with Theoretical Predictions. *Journal of the Electrochemical Society*, **2018**, 165, A3186-A3194 | 3.9 | 32 |
| 189 | Transient Characterization of Solid-Electrolyte-Interphase Using Ferrocene. *Journal of the Electrochemical Society*, **2012**, 159, A281-A289 | 3.9 | 31 |
| 188 | On converting from the McMillan-Mayer framework I. Single-solvent system. *Fluid Phase Equilibria*, **1998**, 145, 255-268 | 2.5 | 31 |
| 187 | Double-Layer Capacity Determination of Porous Electrodes. *Journal of the Electrochemical Society*, **1975**, 122, 70-74 | 3.9 | 31 |
| 186 | Application of the limiting current method to mass transfer in packed beds at very low reynolds numbers. *AICHE Journal*, **1976**, 22, 979-984 | 3.6 | 31 |
| 185 | Retardation of falling drops. *Chemical Engineering Science*, **1967**, 22, 83-85 | 4.4 | 31 |
| 184 | Note. The kouteck correction to the ilkovi equation. *Journal of Electroanalytical Chemistry and Interfacial Electrochemistry*, **1967**, 15, 309-312 | | 31 |
| 183 | Modeling Diffusion and Migration in Dilute Electrochemical Systems Using the Quasi-Potential Transformation. *Journal of the Electrochemical Society*, **1993**, 140, 414-420 | 3.9 | 30 |
| 182 | Electrochemical Removal of Silver Ions from Photographic Fixing Solutions Using a Porous Flow-Through Electrode. *Journal of the Electrochemical Society*, **1977**, 124, 706-708 | 3.9 | 30 |
| 181 | Anisotropic Ion Diffusion and Electrochemically Driven Transport in Nanostructured Block Copolymer Electrolytes. *Journal of Physical Chemistry B*, **2018**, 122, 1537-1544 | 3.4 | 29 |
| 180 | Mathematical Modeling of Lithium(alloy), Iron Disulfide Cells. *Journal of the Electrochemical Society*, **1987**, 134, 1309-1318 | 3.9 | 29 |
| 179 | A comparison between flow-through and flow-by porous electrodes for redox energy storage. *Electrochimica Acta*, **1981**, 26, 455-469 | 6.7 | 29 |
| 178 | Current Distribution on a Plane Electrode below the Limiting Current. *Journal of the Electrochemical Society*, **1969**, 116, 169 | 3.9 | 29 |
| 177 | Limiting Current on a Rotating Disk with Radial Diffusion. *Journal of the Electrochemical Society*, **1971**, 118, 1079 | 3.9 | 29 |
| 176 | The effect of migration in laminar diffusion layers. *International Journal of Heat and Mass Transfer*, **1967**, 10, 983-997 | 4.9 | 29 |
| 175 | An Integrated 1-Dimensional Model of a Photoelectrochemical Cell for Water Splitting. *Journal of the Electrochemical Society*, **2014**, 161, E3328-E3340 | 3.9 | 28 |
| 174 | Lithium Redistribution in Lithium-Metal Batteries. *Journal of the Electrochemical Society*, **2012**, 159, A1615-A1628 | 3.9 | 28 |

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| 173 | Potential distribution in a corroding pit. *Electrochimica Acta*, **1977**, 22, 829-831 | 6.7 | 28 |
| 172 | Why is the Solid-Electrolyte-Interphase Selective? Through-Film Ferrocenium Reduction on Highly Oriented Pyrolytic Graphite. *Journal of the Electrochemical Society*, **2012**, 159, A1922-A1927 | 3.9 | 27 |
| 171 | Potentials of cells with liquid junctions. *The Journal of Physical Chemistry*, **1968**, 72, 4660-4671 | | 27 |
| 170 | Current Distribution on a Rotating Disk Electrode. *Journal of the Electrochemical Society*, **1969**, 116, 1704 | 3.9 | 27 |
| 169 | Effects of Membrane- and Catalyst-Layer-Thickness Nonuniformities in Polymer-Electrolyte Fuel Cells. *Journal of the Electrochemical Society*, **2007**, 154, B405 | 3.9 | 26 |
| 168 | Molecular Simulation of Disjoining-Pressure Isotherms for Free Aqueous Thin Films. *Journal of Physical Chemistry B*, **2003**, 107, 13076-13083 | 3.4 | 26 |
| 167 | Electrochemical Conversion of Anhydrous HCl to Cl2 Using a Solid-Polymer-Electrolyte Electrolysis Cell. *Journal of the Electrochemical Society*, **1995**, 142, 3619-3625 | 3.9 | 26 |
| 166 | Differential Diffusion Coefficients of Sodium Polysulfide Melts. *Journal of the Electrochemical Society*, **1989**, 136, 3362-3369 | 3.9 | 26 |
| 165 | Analytic Expression of the Warburg Impedance for a Rotating Disk Electrode. *Journal of the Electrochemical Society*, **1983**, 130, 822-824 | 3.9 | 26 |
| 164 | Impedance Model for a Concentrated Solution: Application to the Electrodissolution of Copper in Chloride Solutions. *Journal of the Electrochemical Society*, **1984**, 131, 2780-2785 | 3.9 | 25 |
| 163 | Modeling Side Reactions and Nonisothermal Effects in Nickel Metal-Hydride Batteries. *Journal of the Electrochemical Society*, **2008**, 155, A48 | 3.9 | 24 |
| 162 | Evaluation of DLVO theory with disjoining-pressure and film-conductance measurements of common-black films stabilized with sodium dodecyl sulfate. *Journal of Colloid and Interface Science*, **2003**, 262, 442-55 | 9.3 | 24 |
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