

# Jillian M Buriak

## List of Publications by Citations

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168  
papers

11,519  
citations

52  
h-index

104  
g-index

429  
ext. papers

12,546  
ext. citations

9.8  
avg, IF

6.86  
L-index

| #   | Paper   | IF   | Citations |
|-----|---|------|-----------|
| 168 | Organometallic chemistry on silicon and germanium surfaces. <i>Chemical Reviews</i> , <b>2002</b> , 102, 1271-308   | 68.1 | 1537      |
| 167 | Desorption-ionization mass spectrometry on porous silicon. <i>Nature</i> , <b>1999</b> , 399, 243-6   | 50.4 | 959       |
| 166 | Chemical and Biological Applications of Porous Silicon Technology. <i>Advanced Materials</i> , <b>2000</b> , 12, 859-862  | 24   | 386       |
| 165 | Assembly of aligned linear metallic patterns on silicon. <i>Nature Nanotechnology</i> , <b>2007</b> , 2, 500-6  | 28.7 | 323       |
| 164 | Lewis Acid Mediated Functionalization of Porous Silicon with Substituted Alkenes and Alkynes. <i>Journal of the American Chemical Society</i> , <b>1998</b> , 120, 1339-1340                            | 16.4 | 311       |
| 163 | Lewis Acid Mediated Hydrosilylation on Porous Silicon Surfaces. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 11491-11502  | 16.4 | 289       |
| 162 | Organometallic chemistry on silicon surfaces: formation of functional monolayers bound through Si-H bonds. <i>Chemical Communications</i> , <b>1999</b> , 1051-1060                                     | 5.8  | 280       |
| 161 | Using cylindrical domains of block copolymers to self-assemble and align metallic nanowires. <i>ACS Nano</i> , <b>2008</b> , 2, 489-501   | 16.7 | 266       |
| 160 | Exciton-mediated hydrosilylation on photoluminescent nanocrystalline silicon. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 7821-30  | 16.4 | 225       |
| 159 | Photopatterned Hydrosilylation on Porous Silicon. <i>Angewandte Chemie - International Edition</i> , <b>1998</b> , 37, 3257-3260  | 16.4 | 224       |
| 158 | Controlled Electroless Deposition of Noble Metal Nanoparticle Films on Germanium Surfaces. <i>Nano Letters</i> , <b>2002</b> , 2, 1067-1071   | 11.5 | 192       |
| 157 | Block Copolymer Templated Chemistry for the Formation of Metallic Nanoparticle Arrays on Semiconductor Surfaces. <i>Chemistry of Materials</i> , <b>2007</b> , 19, 5090-5101                            | 9.6  | 176       |
| 156 | Cylindrical Sheet Peptide Assemblies. <i>Journal of the American Chemical Society</i> , <b>1998</b> , 120, 8949-8962  | 16.4 | 163       |
| 155 | Derivatized Mesoporous Silicon with Dramatically Improved Stability in Simulated Human Blood Plasma. <i>Advanced Materials</i> , <b>1999</b> , 11, 1505-1507  | 24   | 163       |
| 154 | Spray coated high-conductivity PEDOT:PSS transparent electrodes for stretchable and mechanically-robust organic solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2013</b> , 110, 98-106  | 6.4  | 146       |
| 153 | Synthesis and SERS Properties of Nanocrystalline Gold Octahedra Generated from Thermal Decomposition of HAuCl <sub>4</sub> in Block Copolymers. <i>Advanced Materials</i> , <b>2006</b> , 18, 3233-3237 | 24   | 138       |
| 152 | How To Optimize Materials and Devices via Design of Experiments and Machine Learning: Demonstration Using Organic Photovoltaics. <i>ACS Nano</i> , <b>2018</b> , 12, 7434-7444                          | 16.7 | 130       |

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|-----|---|------|-----|
| 151 | Fast assembly of ordered block copolymer nanostructures through microwave annealing. <i>ACS Nano</i> , <b>2010</b> , 4, 7021-9  | 16.7 | 125 |
| 150 | Catalytic olefin hydrogenation using N-heterocyclic carbene-phosphine complexes of iridium. <i>Chemical Communications</i> , <b>2002</b> , 2518-2519  | 5.8  | 124 |
| 149 | Silver nano-inukshuks on germanium. <i>Nano Letters</i> , <b>2005</b> , 5, 815-9  | 11.5 | 123 |
| 148 | Lead-Free Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 904-905  | 20.1 | 121 |
| 147 | Illuminating Silicon Surface Hydrosilylation: An Unexpected Plurality of Mechanisms. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 763-772  | 9.6  | 120 |
| 146 | Electroless Nanoparticle Film Deposition Compatible with Photolithography, Microcontact Printing, and Dip-Pen Nanolithography Patterning Technologies. <i>Nano Letters</i> , <b>2002</b> , 2, 1369-1372 | 11.5 | 120 |
| 145 | Nanoscale patterning of two metals on silicon surfaces using an ABC triblock copolymer template. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 5877-86                           | 16.4 | 118 |
| 144 | Nanopatterning of alkynes on hydrogen-terminated silicon surfaces by scanning probe-induced cathodic electrografting. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 11334-9      | 16.4 | 118 |
| 143 | Block copolymer-templated chemistry on Si, Ge, InP, and GaAs surfaces. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 8932-3  | 16.4 | 113 |
| 142 | Hydrogermylation of Alkenes and Alkynes on Hydride-Terminated Ge(100) Surfaces. <i>Langmuir</i> , <b>2000</b> , 16, 7737-7741   | 4    | 113 |
| 141 | The search for new hydrogenation catalyst motifs based on N-heterocyclic carbene ligands. <i>Inorganica Chimica Acta</i> , <b>2006</b> , 359, 2786-2797   | 2.7  | 100 |
| 140 | Reporting performance in organic photovoltaic devices. <i>ACS Nano</i> , <b>2013</b> , 7, 4708-14   | 16.7 | 98  |
| 139 | Hydride Abstraction Initiated Hydrosilylation of Terminal Alkenes and Alkynes on Porous Silicon. <i>Langmuir</i> , <b>2002</b> , 18, 2971-2974  | 4    | 98  |
| 138 | Rolling silver nanowire electrodes: simultaneously addressing adhesion, roughness, and conductivity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 12663-71                          | 9.5  | 97  |
| 137 | SnBiSb alloys as anode materials for sodium ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 9661-9670   | 13   | 91  |
| 136 | Specific detection of proteins using photonic crystal waveguides. <i>Optics Express</i> , <b>2008</b> , 16, 15949-57  | 3.3  | 91  |
| 135 | Heteroepitaxial growth of gold nanostructures on silicon by galvanic displacement. <i>ACS Nano</i> , <b>2009</b> , 3, 2809-17   | 16.7 | 88  |
| 134 | Stable Inverted Polymer/Fullerene Solar Cells Using a Cationic Polythiophene Modified PEDOT:PSS Cathodic Interface. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 2404-2415                  | 15.6 | 80  |

- 133 Anodic and cathodic electrografting of alkynes on porous silicon *Chemical Communications*, **1999**, 2479-2480 80
- 132 Surface area characterization of obliquely deposited metal oxide nanostructured thin films. *Langmuir*, **2010**, 26, 4368-76 4 79
- 131 Methylammonium Cation Dynamics in Methylammonium Lead Halide Perovskites: A Solid-State NMR Perspective. *Journal of Physical Chemistry A*, **2018**, 122, 1560-1573 2.8 77
- 130 Nanopatterning via Solvent Vapor Annealing of Block Copolymer Thin Films. *Chemistry of Materials*, **2017**, 29, 176-188 9.6 74
- 129 Bi<sub>2</sub>SnSb for Sodium Ion Battery Anodes: Phase Transformations Responsible for Enhanced Cycling Stability Revealed by In Situ TEM. *ACS Energy Letters*, **2018**, 3, 1670-1676 20.1 68
- 128 Molecular layer deposition of thiol-ene multilayers on semiconductor surfaces. *Langmuir*, **2010**, 26, 1232-34 66
- 127 Studies on Catalytic Asymmetric Imine Hydrogenation in the Presence of Reverse Micelles: Enhanced Enantioselectivity due to Surfactant Head Group Coordination. *Organometallics*, **1996**, 15, 3161-3169 3.8 66
- 126 Indium tin oxide nanopillar electrodes in polymer/fullerene solar cells. *Nanotechnology*, **2011**, 22, 085706 6.4 62
- 125 Metal Mediated Reactions on Porous Silicon Surfaces. *Journal of Solid State Chemistry*, **1999**, 147, 251-258 62
- 124 Three Methods for Stabilization and Functionalization of Porous Silicon Surfaces via Hydrosilylation and Electrografting Reactions. *Physica Status Solidi A*, **2000**, 182, 109-115 60
- 123 Solution-processed zinc phosphide (Zn<sub>3</sub>P<sub>2</sub>) colloidal semiconducting nanocrystals for thin film photovoltaic applications. *ACS Nano*, **2013**, 7, 8136-46 16.7 59
- 122 Deconvoluting the mechanism of microwave annealing of block copolymer thin films. *ACS Nano*, **2014**, 8, 3979-91 16.7 53
- 121 Work Function Control of Interfacial Buffer Layers for Efficient and Air-Stable Inverted Low-Bandgap Organic Photovoltaics. *Advanced Energy Materials*, **2012**, 2, 361-368 21.8 53
- 120 Block copolymer templated etching on silicon. *Nano Letters*, **2007**, 7, 464-9 11.5 53
- 119 Screening of Heterogeneous Multimetallic Nanoparticle Catalysts Supported on Metal Oxides for Mono-, Poly-, and Heteroaromatic Hydrogenation Activity. *ACS Catalysis*, **2012**, 2, 1524-1534 13.1 52
- 118 Metallic Nanostructures via Static Plowing Lithography. *Nano Letters*, **2003**, 3, 1043-1047 11.5 51
- 117 Trapping silicon surface-based radicals. *Langmuir*, **2006**, 22, 6214-21 4 50
- 116 Biocompatible carbohydrate-functionalized stainless steel surfaces: a new method for passivating biomedical implants. *ACS Applied Materials & Interfaces*, **2011**, 3, 1601-12 9.5 49

|     |   |       |    |
|-----|---|-------|----|
| 115 | Synthesis and patterning of gold nanostructures on InP and GaAs via galvanic displacement. <i>Small</i> , <b>2005</b> , 1, 1076-81  | 11    | 49 |
| 114 | New Approaches Toward the Formation of Silicon-Carbon Bonds on Porous Silicon. <i>Comments on Inorganic Chemistry</i> , <b>2002</b> , 23, 179-203   | 3.9   | 48 |
| 113 | Electrostatic layer-by-layer assembly of CdSe nanorod/polymer nanocomposite thin films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2010</b> , 2, 219-29                                     | 9.5   | 47 |
| 112 | High surface area silicon materials: fundamentals and new technology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2006</b> , 364, 217-25      | 3     | 47 |
| 111 | In-Operando Study of the Effects of Solvent Additives on the Stability of Organic Solar Cells Based on PTB7-Th:PC71BM. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 464-470                         | 20.1  | 47 |
| 110 | Toward a mechanistic understanding of exciton-mediated hydrosilylation on nanocrystalline silicon. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 489-97                      | 16.4  | 45 |
| 109 | Phase-Pure Crystalline Zinc Phosphide Nanoparticles: Synthetic Approaches and Characterization. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1925-1935   | 9.6   | 44 |
| 108 | Role of Interfacial Layers in Organic Solar Cells: Energy Level Pinning versus Phase Segregation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 18238-48                         | 9.5   | 43 |
| 107 | Oxygen Evolution Catalyzed by Nickel-Iron Oxide Nanocrystals with a Nonequilibrium Phase. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 19755-63                                 | 9.5   | 41 |
| 106 | Rapid Assembly of Nanolines with Precisely Controlled Spacing from Binary Blends of Block Copolymers. <i>Macromolecules</i> , <b>2011</b> , 44, 9752-9757   | 5.5   | 41 |
| 105 | SbBi Alloys and Multilayers for Sodium-Ion Battery Anodes. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 2205-2213   | 22.13 | 40 |
| 104 | Photoluminescence of porous silicon surfaces stabilized through Lewis acid mediated hydrosilylation. <i>Journal of Luminescence</i> , <b>1998</b> , 80, 29-35                                       | 3.8   | 40 |
| 103 | Preparation and functionalization of hydride terminated porous germanium. <i>Chemical Communications</i> , <b>2000</b> , 1669-1670  | 5.8   | 40 |
| 102 | Automated Defect and Correlation Length Analysis of Block Copolymer Thin Film Nanopatterns. <i>PLoS ONE</i> , <b>2015</b> , 10, e0133088  | 3.7   | 39 |
| 101 | Catalytic stamp lithography for sub-100 nm patterning of organic monolayers. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 17656-7   | 16.4  | 39 |
| 100 | Redox Flow Batteries: How to Determine Electrochemical Kinetic Parameters. <i>ACS Nano</i> , <b>2020</b> , 14, 2575-2584  | 25.84 | 38 |
| 99  | Bulk Heterojunction Organic Photovoltaics Based on Carboxylated Polythiophenes and PCBM on Glass and Plastic Substrates. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 1816-1826         | 15.6  | 38 |
| 98  | Probing the mechanisms of enantioselective hydrogenation of simple olefins with chiral rhodium catalysts in the presence of anions. <i>Chemistry - A European Journal</i> , <b>2000</b> , 6, 139-50 | 4.8   | 38 |

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|----|--|------|----|
| 97 | Dehydrogenative silane coupling on silicon surfaces via early transition metal catalysis. <i>Inorganic Chemistry</i> , <b>2006</b> , 45, 1096-102  | 5.1  | 37 |
| 96 | Size and Surface Effects of Silicon Nanocrystals in Graphene Aerogel Composite Anodes for Lithium Ion Batteries. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 7782-7792   | 9.6  | 35 |
| 95 | Epitaxial growth of nanostructured gold films on germanium via galvanic displacement. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2010</b> , 2, 3515-24   | 9.5  | 33 |
| 94 | Thienylsilane-modified indium tin oxide as an anodic interface in polymer/fullerene solar cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2009</b> , 1, 279-88   | 9.5  | 33 |
| 93 | Density doubling of block copolymer templated features. <i>Nano Letters</i> , <b>2012</b> , 12, 264-8  | 11.5 | 32 |
| 92 | UV-initiated hydrosilylation on hydrogen-terminated silicon (111): rate coefficient increase of two orders of magnitude in the presence of aromatic electron acceptors. <i>Langmuir</i> , <b>2012</b> , 28, 16285-93 | 4    | 32 |
| 91 | Characterization of the Interface of Gold and Silver Nanostructures on InP and GaAs Synthesized via Galvanic Displacement. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 12291-12298                   | 3.8  | 32 |
| 90 | Specific detection of proteins using nanomechanical resonators. <i>Sensors and Actuators B: Chemical</i> , <b>2008</b> , 134, 613-617  | 8.5  | 32 |
| 89 | Donor-acceptor small molecules for organic photovoltaics: single-atom substitution (Se or S). <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 8188-99   | 9.5  | 31 |
| 88 | Nickel/Iron Oxide Nanocrystals with a Nonequilibrium Phase: Controlling Size, Shape, and Composition. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 4796-4804  | 9.6  | 31 |
| 87 | Finely tailored performance of inverted organic photovoltaics through layer-by-layer interfacial engineering. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 3962-70                               | 9.5  | 31 |
| 86 | From Molecules to Surfaces: Radical-Based Mechanisms of Si-S and Si-Se Bond Formation on Silicon. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 9730-8  | 16.4 | 29 |
| 85 | ABH-Glycan Microarray Characterizes ABO Subtype Antibodies: Fine Specificity of Immune Tolerance After ABO-Incompatible Transplantation. <i>American Journal of Transplantation</i> , <b>2016</b> , 16, 1548-58      | 8.7  | 29 |
| 84 | C60 fullerene nanocolumns--polythiophene heterojunctions for inverted organic photovoltaic cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 1887-94   | 9.5  | 27 |
| 83 | Chemistry. Chemistry with nanoscale perfection. <i>Science</i> , <b>2004</b> , 304, 692-3  | 33.3 | 27 |
| 82 | Electrochemically driven organic monolayer formation on silicon surfaces using alkylammonium and alkylphosphonium reagents. <i>Surface Science</i> , <b>2005</b> , 590, 154-161                                      | 1.8  | 27 |
| 81 | Transition metal mediated surface modification of porous silicon. <i>Tetrahedron</i> , <b>2001</b> , 57, 5131-5136   | 2.4  | 27 |
| 80 | Effects of Organic Monolayer Formation on Electrochemiluminescence Behavior of Porous Silicon. <i>Chemistry of Materials</i> , <b>2000</b> , 12, 2151-2156   | 9.6  | 27 |

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|----|---|------|----|
| 79 | Elucidating the Surface Chemistry of Zinc Phosphide Nanoparticles Through Ligand Exchange. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 4653-4661  | 9.6  | 26 |
| 78 | Analysis of porosity in porous silicon using hyperpolarized <sup>129</sup> Xe two-dimensional exchange experiments. <i>Solid State Nuclear Magnetic Resonance</i> , <b>2006</b> , 29, 85-9                                  | 3.1  | 26 |
| 77 | Conversion of bilayers of PS-b-PDMS block copolymer into closely packed, aligned silica nanopatterns. <i>ACS Nano</i> , <b>2013</b> , 7, 5595-606   | 16.7 | 25 |
| 76 | Screening of bimetallic heterogeneous nanoparticle catalysts for arene hydrogenation activity under ambient conditions. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 2706-14  | 5.1  | 25 |
| 75 | Challenges and Opportunities in Designing Perovskite Nanocrystal Heterostructures. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 2253-2255   | 20.1 | 24 |
| 74 | Self-assembly of carboxylated polythiophene nanowires for improved bulk heterojunction morphology in polymer solar cells. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 11354                                   |      | 24 |
| 73 | Nanoscale plasmonic stamp lithography on silicon. <i>ACS Nano</i> , <b>2015</b> , 9, 2184-93  | 16.7 | 22 |
| 72 | Preferential face deposition of gold nanoparticles on silicon nanowires by galvanic displacement. <i>CrystEngComm</i> , <b>2012</b> , 14, 5230  | 3.3  | 22 |
| 71 | Diamond Surfaces: Just Big Organic Molecules?. <i>Angewandte Chemie - International Edition</i> , <b>2001</b> , 40, 532-534   | 16.4 | 22 |
| 70 | Nanoscale patterning of organic monolayers by catalytic stamp lithography: scope and limitations. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2009</b> , 1, 2711-20  | 9.5  | 21 |
| 69 | Constructing metal-based structures on nanopatterned etched silicon. <i>ACS Nano</i> , <b>2011</b> , 5, 5015-24   | 16.7 | 20 |
| 68 | Self-assembly of peptide based nanotubes. <i>Materials Science and Engineering C</i> , <b>1997</b> , 4, 207-212   | 8.3  | 19 |
| 67 | Expanding the Repertoire of Molecular Linkages to Silicon: Si-S, Si-Se, and Si-Te Bonds. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 11091-9   | 9.5  | 18 |
| 66 | Preferential Alignment of Incommensurate Block Copolymer Dot Arrays Forming Moiré Superstructures. <i>ACS Nano</i> , <b>2017</b> , 11, 3237-3246  | 16.7 | 16 |
| 65 | UV-Initiated Si <sub>3</sub> S, Si <sub>3</sub> Se, and Si <sub>3</sub> Te Bond Formation on Si(111): Coverage, Mechanism, and Electronics. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 13803-13814         | 3.8  | 16 |
| 64 | Optical sensing of amine vapors with a series of tin compounds. <i>Chemical Communications</i> , <b>2004</b> , 2028-9   | 5.8  | 16 |
| 63 | Sequential Nanopatterned Block Copolymer Self-Assembly on Surfaces. <i>Langmuir</i> , <b>2016</b> , 32, 5890-8  | 4    | 15 |
| 62 | Understanding the Mechanism of Enhanced Cycling Stability in Sn <sub>3</sub> Sb Composite Na-Ion Battery Anodes: Operando Alloying and Diffusion Barriers. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 5133-5139 | 6.1  | 14 |



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|----|---|------|----|
| 61 | Building upon patterned organic monolayers produced via catalytic stamp lithography. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2010</b> , 2, 2301-7  | 9.5  | 14 |
| 60 | Nano and Plants. <i>ACS Nano</i> , <b>2022</b> , 16, 1681-1684  | 16.7 | 14 |
| 59 | Understanding the Effects of a High Surface Area Nanostructured Indium Tin Oxide Electrode on Organic Solar Cell Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 38706-38715                    | 9.5  | 12 |
| 58 | Alternating Silicon and Carbon Multilayer-Structured Anodes Suppress Formation of the c-Li <sub>3.75</sub> Si Phase. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 6578-6589  | 9.6  | 12 |
| 57 | UV-Induced Ferroelectric Phase Transformation in PVDF Thin Films. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800363   | 6.4  | 12 |
| 56 | Polymers, Plasmons, and Patterns: Mechanism of Plasmon-Induced Hydrosilylation on Silicon. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 9158-9168  | 9.6  | 11 |
| 55 | Block copolymer-templated chemical nanopatterning on pyrolyzed photoresist carbon films. <i>Chemical Communications</i> , <b>2012</b> , 48, 9741-3  | 5.8  | 11 |
| 54 | Block copolymer mediated deposition of metal nanoparticles on germanium nanowires. <i>Chemical Communications</i> , <b>2007</b> , 1438-40   | 5.8  | 11 |
| 53 | Optimization of the Bulk Heterojunction of All-Small-Molecule Organic Photovoltaics Using Design of Experiment and Machine Learning Approaches. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 54596-54607 | 9.5  | 11 |
| 52 | Adhesion and Surface Layers on Silicon Anodes Suppress Formation of c-Li <sub>3.75</sub> Si and Solid-Electrolyte Interphase. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 1609-1616                                | 6.1  | 8  |
| 51 | Vapor-Phase Nanopatterning of Aminosilanes with Electron Beam Lithography: Understanding and Minimizing Background Functionalization. <i>Langmuir</i> , <b>2018</b> , 34, 4780-4792   | 4    | 8  |
| 50 | A simple in situ <sup>31</sup> P NMR method for the determination of the enantiomeric purity of aromatic substrates. <i>Journal of the Chemical Society Chemical Communications</i> , <b>1995</b> , 689                       |      | 8  |
| 49 | Increased Volatility of Barium Metal Organics by the Use of Nitrogen Lewis Bases. <i>Materials Research Society Symposia Proceedings</i> , <b>1990</b> , 204, 545   |      | 8  |
| 48 | Bipolar Resistive Switching in Junctions of Gallium Oxide and p-type Silicon. <i>Nano Letters</i> , <b>2021</b> , 21, 2666-2674   | 6.5  | 8  |
| 47 | Conjugation of A and B Blood Group Structures to Silica Microparticles for the Detection of Antigen-Specific B Cells. <i>Bioconjugate Chemistry</i> , <b>2016</b> , 27, 705-15  | 6.3  | 7  |
| 46 | Transport Properties of Thiophenes: Insights from Density-Functional Theory Modeling Using Dispersion-Correcting Potentials. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 10952-10961                          | 3.8  | 7  |
| 45 | Summarize Your Work in 100 Milliseconds or Less... The Importance of the Table of Contents Image. <i>ACS Nano</i> , <b>2011</b> , 5, 7687-7689  | 16.7 | 7  |
| 44 | Photostrukturierbare Hydrosilylierung von porösem Silicium. <i>Angewandte Chemie</i> , <b>1998</b> , 110, 3447-3450   | 3.6  | 7  |



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| 43 | Plasmonic Stamps Fabricated by Gold Dewetting on PDMS for Catalyzing Hydrosilylation on Silicon Surfaces. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 3238-3245   | 5.6  | 6 |
| 42 | Water-soluble pH-switchable cobalt complexes for aqueous symmetric redox flow batteries. <i>Chemical Communications</i> , <b>2020</b> , 56, 3605-3608  | 5.8  | 5 |
| 41 | Mastering the Art of Scientific Publication. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 3519-21   | 6.4  | 4 |
| 40 | Solvent Vapor Annealing, Defect Analysis, and Optimization of Self-Assembly of Block Copolymers Using Machine Learning Approaches. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 28639-28649 | 9.5  | 4 |
| 39 | Positive and negative photopatterning of metal oxides on silicon via bipolar electrochemical deposition. <i>Chemical Communications</i> , <b>2001</b> , 1614-5   | 5.8  | 3 |
| 38 | Silicon-Carbon Bond Formation on Porous Silicon <b>2014</b> , 683-693  |      | 3 |
| 37 | Stabilizing Tin Anodes in Sodium-Ion Batteries by Alloying with Silicon. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 9950-9962  | 6.1  | 3 |
| 36 | van der Waals Epitaxy of Soft Twisted Bilayers: Lattice Relaxation and Mass Density Waves. <i>ACS Nano</i> , <b>2020</b> , 14, 13441-13450   | 16.7 | 3 |
| 35 | Three Pillars of Effective Research. Measurements, Analysis, and Dissemination [A Virtual Issue]. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2473-2474   | 20.1 | 2 |
| 34 | Large area assembled periodic nanoarrays by block copolymer templating and glancing angle deposition <b>2008</b> ,   |      | 2 |
| 33 | Functionalization of Silicon Surfaces for Device Applications. <i>Journal of the Association for Laboratory Automation</i> , <b>1999</b> , 4, 36-39  |      | 2 |
| 32 | Mixing, Domains, and Fast Li-Ion Dynamics in Ternary Li <sub>3</sub> BbBi Battery Anode Alloys. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 2394-2402  | 3.8  | 2 |
| 31 | HARNESSING SYNTHETIC VERSATILITY TOWARD INTELLIGENT INTERFACIAL DESIGN: ORGANIC FUNCTIONALIZATION OF NANOSTRUCTURED SILICON SURFACES <b>2003</b> , 227-259   |      | 2 |
| 30 | Prof. Millie Dresselhaus (1930-2017), Carbon Nanomaterials Pioneer. <i>ACS Nano</i> , <b>2017</b> , 11, 2307-2308  | 16.7 | 1 |
| 29 | Reconsidering X-ray Photoelectron Spectroscopy Quantification of Substitution Levels of Monolayers on Unoxidized Silicon Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 16461-16477       | 3.8  | 1 |
| 28 | Father of Mesoporous Materials: Galen D. Stucky. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 5819-5820   | 9.6  | 1 |
| 27 | That's a Wrap: Graphene-Wrapped Magnetite Anodes for Lithium Ion Batteries. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 6561-6562  | 9.6  | 1 |
| 26 | Morphology control and nanoscale patterning of small molecule organic thin films <b>2012</b> ,   |      | 1 |

|    |  |      |   |
|----|--|------|---|
| 25 | In memoriam, Victor S.-Y. Lin. <i>ACS Nano</i> , <b>2010</b> , 4, 2973-4   | 16.7 | 1 |
| 24 | The Quest for Longevity and Stability of Iridium-based Hydrogenation Catalysts: N-Heterocyclic Carbenes and Crabtree's Catalyst <b>2006</b> , 241-255  |      | 1 |
| 23 | Beyond Thin Films: Clarifying the Impact of -LiSi Formation in Thin Film, Nanoparticle, and Porous Si Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 38147-38160  | 9.5  | 1 |
| 22 | Festschrift in Honor of Prof. Jean-Luc Brédas on His 65th Birthday. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 6307-6308  | 9.0  | 0 |
| 21 | Organic Photovoltaics: An Early Innovator. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 5181-5182   | 9.6  | 0 |
| 20 | Nanomaterials Pioneers: Nikoobakht and El-Sayed. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 4669-4670   | 9.6  | 0 |
| 19 | Confronting Racism in Chemistry Journals. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 6131-6133   | 5.6  |   |
| 18 | Confronting Racism in Chemistry Journals. <i>ACS Applied Polymer Materials</i> , <b>2020</b> , 2, 2496-2498  | 4.3  |   |
| 17 | Confronting Racism in Chemistry Journals. <i>Organometallics</i> , <b>2020</b> , 39, 2331-2333   | 3.8  |   |
| 16 | Update to Our Reader, Reviewer, and Author Communities April 2020. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 5107-5108   | 4.1  |   |
| 15 | Update to Our Reader, Reviewer, and Author Communities April 2020. <i>Organometallics</i> , <b>2020</b> , 39, 1665-1666  | 3.6  |   |
| 14 | Chemistry of Materials/30th Anniversary Editorial Interview with Prof. Charlene Crawley. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 3849-3850   | 9.6  |   |
| 13 | Silicon-Carbon Bond Formation on Porous Silicon <b>2014</b> , 1-11   |      |   |
| 12 | Just Accepted, Most Read, and New Faces. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1983-1984   | 9.6  |   |
| 11 | Chemistry of Materials, Editors' Choice, and Twitter. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 649-649  | 9.6  |   |
| 10 | Organic Photovoltaics: Work Function Control of Interfacial Buffer Layers for Efficient and Air-Stable Inverted Low-Bandgap Organic Photovoltaics (Adv. Energy Mater. 3/2012). <i>Advanced Energy Materials</i> , <b>2012</b> , 2, 278-278 | 21.8 |   |
| 9  | Diamantoberflächen: eigentlich nur große organische Moleküle?. <i>Angewandte Chemie</i> , <b>2001</b> , 113, 548-550   | 3.6  |   |
| 8  | Functionalization of Porous Silicon with Alkenes and Alkynes via Carbocation-Mediated Hydrosilylation. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 737, 575   |      |   |

- 7 New Pairs of Inks and Papers for Photolithography, Microcontact Printing, and Scanning Probe Nanolithography. *Materials Research Society Symposia Proceedings*, **2002**, 737, 409
- 6 Electroless Deposition and Patterning of Morphologically Complex Precious Metal Films on Semiconductor Surfaces. *Materials Research Society Symposia Proceedings*, **2002**, 737, 588
- 5 Silicon-Carbon Bond Formation on Porous Silicon **2018**, 1003-1014
- 4 Confronting Racism in Chemistry Journals. *Journal of Chemical Health and Safety*, **2020**, 27, 198-200 1.7
- 3 Silicon-Carbon Bond Formation on Porous Silicon **2017**, 1-12
- 2 Materials + Energy + International Collaboration = Fundamental Insights. *Chemistry of Materials*, **2016**, 28, 2883-2885 9.6
- 1 Kinetics of Plasmon-Driven Hydrosilylation of Silicon Surfaces: Photogenerated Charges Drive Silicon-Carbon Bond Formation. *Journal of Physical Chemistry C*, **2021**, 125, 17983-17992 3.8