

# Nicholas Winograd

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

296  
papers

13,036  
citations

60  
h-index

99  
g-index

302  
ext. papers

13,644  
ext. citations

6  
avg, IF

6.43  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 296 | Direct Mapping of Phospholipid Ferroptotic Death Signals in Cells and Tissues by Gas Cluster Ion Beam Secondary Ion Mass Spectrometry (GCIB-SIMS). <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 11784-11788                      | 16.4 | 10        |
| 295 | Direct Mapping of Phospholipid Ferroptotic Death Signals in Cells and Tissues by Gas Cluster Ion Beam Secondary Ion Mass Spectrometry (GCIB-SIMS). <i>Angewandte Chemie</i> , <b>2021</b> , 133, 11890-11894   | 3.6  | 0         |
| 294 | Multiomics Imaging Using High-Energy Water Gas Cluster Ion Beam Secondary Ion Mass Spectrometry [(HO)-GCIB-SIMS] of Frozen-Hydrated Cells and Tissue. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 7808-7814 <sup>4</sup>                             | 7.8  | 14        |
| 293 | Successive High-Resolution (HO)-GCIB and C-SIMS Imaging Integrates Multi-Omics in Different Cell Types in Breast Cancer Tissue. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 8143-8151  | 7.8  | 4         |
| 292 | Metabolomics and mass spectrometry imaging reveal channeled de novo purine synthesis in cells. <i>Science</i> , <b>2020</b> , 368, 283-290   | 33.3 | 90        |
| 291 | Secondary-Ion Mass Spectrometry Images Cardiolipins and Phosphatidylethanolamines at the Subcellular Level. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 3156-3161   | 16.4 | 35        |
| 290 | Ionization probability of sputtered indium under irradiation with 20-keV fullerene and argon gas cluster projectiles. <i>International Journal of Mass Spectrometry</i> , <b>2019</b> , 438, 13-21   | 1.9  | 2         |
| 289 | Secondary-Ion Mass Spectrometry Images Cardiolipins and Phosphatidylethanolamines at the Subcellular Level. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 3188-3193  | 3.6  | 19        |
| 288 | Enhanced Ion Yields Using High Energy Water Cluster Beams for Secondary Ion Mass Spectrometry Analysis and Imaging. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 9058-9068  | 7.8  | 16        |
| 287 | Molecular SIMS Ionization Probability Studied with Laser Postionization: Influence of the Projectile Cluster. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 565-574  | 3.8  | 6         |
| 286 | C-O Bond Dissociation and Induced Chemical Ionization Using High Energy (CO) Gas Cluster Ion Beam. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2019</b> , 30, 476-481  | 3.5  | 5         |
| 285 | Gas Cluster Ion Beams for Secondary Ion Mass Spectrometry. <i>Annual Review of Analytical Chemistry</i> , <b>2018</b> , 11, 29-48  | 12.5 | 47        |
| 284 | On the SIMS Ionization Probability of Organic Molecules. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2017</b> , 28, 1182-1191  | 3.5  | 19        |
| 283 | Ionization Probability in Molecular Secondary Ion Mass Spectrometry: Protonation Efficiency of Sputtered Guanine Molecules Studied by Laser Postionization. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 8931-8937                        | 3.8  | 18        |
| 282 | Subcellular Chemical Imaging of Antibiotics in Single Bacteria Using C-Secondary Ion Mass Spectrometry. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 5050-5057  | 7.8  | 54        |
| 281 | Label-free visualization of nilotinib-functionalized gold nanoparticles within single mammalian cells by C- SIMS imaging. <i>Analytical and Bioanalytical Chemistry</i> , <b>2017</b> , 409, 3067-3076   | 4.4  | 8         |
| 280 | Gas Cluster Ion Beam Time-of-Flight Secondary Ion Mass Spectrometry High-Resolution Imaging of Cardiolipin Speciation in the Brain: Identification of Molecular Losses after Traumatic Injury. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 4611-4619 | 7.8  | 53        |

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| 279 | Effect of SIMS ionization probability on depth resolution for organic/inorganic interfaces. <i>Surface and Interface Analysis</i> , <b>2017</b> , 49, 933-939  | 1.5 | 2  |
| 278 | Reducing the Matrix Effect in Molecular Secondary Ion Mass Spectrometry by Laser Post-Ionization. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 19705-19715  | 3.8 | 5  |
| 277 | Dynamic Reactive Ionization with Cluster Secondary Ion Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2016</b> , 27, 285-92  | 3.5 | 15 |
| 276 | CO <sub>2</sub> Cluster Ion Beam, an Alternative Projectile for Secondary Ion Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2016</b> , 27, 1476-82                        | 3.5 | 26 |
| 275 | Cluster secondary ion mass spectrometry imaging of interfacial reactions of TiO <sub>2</sub> microspheres embedded in ionic liquids. <i>Rapid Communications in Mass Spectrometry</i> , <b>2016</b> , 30, 379-85 | 2.2 | 2  |
| 274 | Multimodal image fusion with SIMS: Preprocessing with image registration. <i>Biointerphases</i> , <b>2016</b> , 11, 02A311   | 1.8 | 7  |
| 273 | Reduce the matrix effect in biological tissue imaging using dynamic reactive ionization and gas cluster ion beams. <i>Biointerphases</i> , <b>2016</b> , 11, 02A320  | 1.8 | 10 |
| 272 | The Development of Secondary Ion Mass Spectrometry (SIMS) for Imaging <b>2016</b> , 103-112  |     | 2  |
| 271 | Reducing the Matrix Effect in Organic Cluster SIMS Using Dynamic Reactive Ionization. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2016</b> , 27, 2014-2024                                 | 3.5 | 11 |
| 270 | Molecular Depth Profiling with Argon Gas Cluster Ion Beams. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 15316-15324  | 3.8 | 33 |
| 269 | Measuring Compositions in Organic Depth Profiling: Results from a VAMAS Interlaboratory Study. <i>Journal of Physical Chemistry B</i> , <b>2015</b> , 119, 10784-97  | 3.4 | 46 |
| 268 | SIMS <sup>A</sup> precursor and partner to contemporary mass spectrometry. <i>International Journal of Mass Spectrometry</i> , <b>2015</b> , 377, 568-579  | 1.9 | 41 |
| 267 | Nanoscale Imaging Mass Spectrometry using Cluster Ion Beams. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 2391-2392   | 0.5 |    |
| 266 | Imaging mass spectrometry on the nanoscale with cluster ion beams. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 328-38  |     | 40 |
| 265 | Sample preparation for 3D SIMS chemical imaging of cells. <i>Methods in Molecular Biology</i> , <b>2015</b> , 1203, 9-19   | 1.4 | 12 |
| 264 | C <sub>60</sub> -SIMS imaging of nanoparticles within mammalian cells. <i>Biointerphases</i> , <b>2015</b> , 11, 02A306  | 1.8 | 7  |
| 263 | Strong Field Ionization of Estradiol in the IR: Strategies To Optimize Molecular Postionization in Secondary Neutral Mass Spectrometry. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 25534-25544  | 3.8 | 13 |
| 262 | Formation of neutral In(m)C(n) clusters under C <sub>60</sub> ion bombardment of indium. <i>Journal of Physical Chemistry A</i> , <b>2014</b> , 118, 8542-52   | 2.8 | 11 |

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| 261 | Application of pan-sharpening to SIMS imaging. <i>Surface and Interface Analysis</i> , <b>2014</b> , 46, 217-220   | 1.5 | 5  |
| 260 | Near infrared (NIR) strong field ionization and imaging of C <sub>60</sub> sputtered molecules: overcoming matrix effects and improving sensitivity. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 8613-20 | 7.8 | 14 |
| 259 | Characterization of hydroxyapatite deposition on biomimetic polyphosphazenes by time-of-flight secondary ion mass spectrometry (ToF-SIMS). <i>RSC Advances</i> , <b>2014</b> , 4, 19680-19689                | 3.7 | 5  |
| 258 | Improving secondary ion mass spectrometry image quality with image fusion. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2014</b> , 25, 2154-62  | 3.5 | 23 |
| 257 | Dye-Enhanced imaging of mammalian cells with SIMS. <i>Surface and Interface Analysis</i> , <b>2014</b> , 46, 177-180   | 1.5 | 3  |
| 256 | Tandem MS and C <sub>60</sub> SIMS for the identification and characterization of lipids. <i>Surface and Interface Analysis</i> , <b>2014</b> , 46, 118-122  | 1.5 | 1  |
| 255 | Investigations Into the Interactions of a MALDI Matrix with Organic Thin Films Using C SIMS Depth Profiling. <i>Surface and Interface Analysis</i> , <b>2014</b> , 46, 67-69                                 | 1.5 | 1  |
| 254 | Relative ion yields in mammalian cell components using C SIMS. <i>Surface and Interface Analysis</i> , <b>2014</b> , 45, 244-247   | 1.5 | 5  |
| 253 | Molecular imaging of biological tissue using gas cluster ions. <i>Surface and Interface Analysis</i> , <b>2014</b> , 46, 115-117   | 1.5 | 12 |
| 252 | A mixed cluster ion beam to enhance the ionization efficiency in molecular secondary ion mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , <b>2014</b> , 28, 396-400                     | 2.2 | 38 |
| 251 | Cluster Secondary Ion Mass Spectrometry <b>2014</b> , 71-98  |     | 1  |
| 250 | Investigations of molecular depth profiling with dual beam sputtering. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 175-177   | 1.5 | 2  |
| 249 | C <sub>60</sub> -ToF SIMS imaging of frozen hydrated HeLa cells. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 302-304   | 1.5 | 32 |
| 248 | Molecular Depth Profiling. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 3-8   | 1.5 | 26 |
| 247 | A statistical interpretation of molecular delta layer depth profiles. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 39-41  | 1.5 | 5  |
| 246 | Mass spectrometry imaging of freeze-dried membrane phospholipids of dividing <i>Tetrahymena pyriformis</i> . <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 211-214                               | 1.5 | 10 |
| 245 | C(60)-SIMS Studies of Glycerophospholipid in a LIPID MAPS Model System: KDO(2)-Lipid A Stimulated RAW 264.7 Cells. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 298-301                         | 1.5 | 5  |
| 244 | An experimental and theoretical view of energetic C cluster bombardment onto molecular solids. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 50-53   | 1.5 | 5  |

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| 243 | Temperature Effects of Sputtering of Langmuir-Blodgett Multilayers. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 65-67  | 1.5 | 2   |
| 242 | Quantitative Detection of Purines in Biologically-Relevant Films with TOF-Secondary Ion Mass Spectrometry. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 237-239   | 1.5 | 3   |
| 241 | Evidence for the formation of dynamically created pre-formed ions at the interface of isotopically enriched thin films. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 54   | 1.5 | 1   |
| 240 | Strong-field ionization of C60 sputtered neutral molecules using 1015 W/cm <sup>2</sup> of fs IR radiation. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 510-512  | 1.5 | 6   |
| 239 | Single-cell lipidomics: characterizing and imaging lipids on the surface of individual <i>Aplysia californica</i> neurons with cluster secondary ion mass spectrometry. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 2231-8 | 7.8 | 88  |
| 238 | Depth profiling of metal overlayers on organic substrates with cluster SIMS. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 10565-72  | 7.8 | 10  |
| 237 | Direct observation of ion distributions near electrodes in ionic polymer actuators containing ionic liquids. <i>Scientific Reports</i> , <b>2013</b> , 3, 973  | 4.9 | 39  |
| 236 | Argon cluster ion beams for organic depth profiling: results from a VAMAS interlaboratory study. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 7865-73   | 7.8 | 119 |
| 235 | Cluster secondary ion mass spectrometry and the temperature dependence of molecular depth profiles. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 3981-9   | 7.8 | 10  |
| 234 | Molecular depth profiling by wedged crater beveling. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 6410-7  | 7.8 | 22  |
| 233 | Lipid imaging with time-of-flight secondary ion mass spectrometry (ToF-SIMS). <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , <b>2011</b> , 1811, 976-90   | 5   | 223 |
| 232 | Label free biochemical 2D and 3D imaging using secondary ion mass spectrometry. <i>Current Opinion in Chemical Biology</i> , <b>2011</b> , 15, 733-40  | 9.7 | 72  |
| 231 | Investigating the Fundamentals of Molecular Depth Profiling Using Strong-field Photoionization of Sputtered Neutrals. <i>Surface and Interface Analysis</i> , <b>2011</b> , 43, 45-48  | 1.5 | 9   |
| 230 | Temperature effects in the sputtering of a molecular solid by energetic atomic and cluster projectiles. <i>Surface and Interface Analysis</i> , <b>2011</b> , 43, 78   | 1.5 | 2   |
| 229 | Retrospective sputter depth profiling using 3D mass spectral imaging. <i>Surface and Interface Analysis</i> , <b>2011</b> , 43, 41   | 1.5 | 4   |
| 228 | Characterizing in situ Glycerophospholipids with SIMS and MALDI Methodologies. <i>Surface and Interface Analysis</i> , <b>2011</b> , 43, 269-271   | 1.5 | 25  |
| 227 | Molecular depth profiling of buried lipid bilayers using C(60)-secondary ion mass spectrometry. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 351-8  | 7.8 | 29  |
| 226 | Fluid Flow and Effusive Desorption: Dominant Mechanisms of Energy Dissipation after Energetic Cluster Bombardment of Molecular Solids. <i>Journal of Physical Chemistry Letters</i> , <b>2011</b> , 2, 2009-2014               | 6.4 | 22  |

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| 225 | Ion distribution in ionic electroactive polymer actuators <b>2011</b> ,   |      | 1  |
| 224 | Mass spectrometry imaging of mating <i>Tetrahymena</i> show that changes in cell morphology regulate lipid domain formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 2751-6 | 11.5 | 74 |
| 223 | Molecular depth profiling with cluster secondary ion mass spectrometry and wedges. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 57-60  | 7.8  | 22 |
| 222 | Strong-field Photoionization of Sputtered Neutral Molecules for Molecular Depth Profiling. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 5391-5399  | 3.8  | 18 |
| 221 | Time of flight mass spectrometry imaging of samples fractured in situ with a spring-loaded trap system. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 6652-9  | 7.8  | 33 |
| 220 | Effects of cryogenic sample analysis on molecular depth profiles with TOF-secondary ion mass spectrometry. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 8291-9   | 7.8  | 38 |
| 219 | Biological cluster mass spectrometry. <i>Annual Review of Physical Chemistry</i> , <b>2010</b> , 61, 305-22   | 15.7 | 62 |
| 218 | Molecular sputter depth profiling using carbon cluster beams. <i>Analytical and Bioanalytical Chemistry</i> , <b>2010</b> , 396, 105-14   | 4.4  | 40 |
| 217 | Nanotome cluster bombardment to recover spatial chemistry after preparation of biological samples for SIMS imaging. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2010</b> , 21, 833-6                                      | 3.5  | 16 |
| 216 | Lipid detection, identification, and imaging single cells with SIMS. <i>Methods in Molecular Biology</i> , <b>2010</b> , 656, 85-97   | 1.4  | 14 |
| 215 | Three-dimensional depth profiling of molecular structures. <i>Analytical and Bioanalytical Chemistry</i> , <b>2009</b> , 393, 1835-42   | 4.4  | 40 |
| 214 | Strong-field ionization of sputtered molecules for biomolecular imaging. <i>Chemical Physics Letters</i> , <b>2009</b> , 468, 264-269   | 2.5  | 28 |
| 213 | Internal energy of molecules ejected due to energetic C60 bombardment. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 2260-7   | 7.8  | 50 |
| 212 | Time-of-flight secondary ion mass spectrometry imaging of subcellular lipid heterogeneity: Poisson counting and spatial resolution. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 5593-602  | 7.8  | 32 |
| 211 | Molecular dynamics simulations of sputtering of Langmuir-Blodgett multilayers by keV C(60) projectiles. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 5641  | 3.8  | 14 |
| 210 | Freeze-etching and vapor matrix deposition for ToF-SIMS imaging of single cells. <i>Langmuir</i> , <b>2008</b> , 24, 7906-11  | 4    | 44 |
| 209 | Depth resolution during C60+ profiling of multilayer molecular films. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 7363-71   | 7.8  | 48 |
| 208 | Molecular Depth Profiling using a C(60) Cluster Beam: the Role of Impact Energy. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 16550-16555  | 3.8  | 33 |

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| 207 | Microscopic Insight into the Sputtering of Thin Polystyrene Films on Ag{111} Induced by Large and Slow Ar Clusters. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 521-531                    | 3.8 | 47  |
| 206 | MS/MS methodology to improve subcellular mapping of cholesterol using TOF-SIMS. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 8662-7   | 7.8 | 67  |
| 205 | Label-free optical detection of peptide synthesis on a porous silicon scaffold/sensor. <i>Langmuir</i> , <b>2008</b> , 24, 2908-15   | 4   | 18  |
| 204 | Energy deposition during molecular depth profiling experiments with cluster ion beams. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 5293-301  | 7.8 | 54  |
| 203 | C60 secondary ion mass spectrometry with a hybrid-quadrupole orthogonal time-of-flight mass spectrometer. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 7921-9   | 7.8 | 108 |
| 202 | Short-chain alcohols promote accelerated membrane distention in a dynamic liposome model of exocytosis. <i>Langmuir</i> , <b>2008</b> , 24, 2637-42  | 4   | 7   |
| 201 | Mass spectral imaging of glycopospholipids, cholesterol, and glycophorin a in model cell membranes. <i>Langmuir</i> , <b>2008</b> , 24, 11803-10   | 4   | 31  |
| 200 | Molecular dynamics simulations of sputtering of organic overlayers by slow, large clusters. <i>Applied Surface Science</i> , <b>2008</b> , 255, 841-843  | 6.7 | 11  |
| 199 | Angle of incidence effects in a molecular solid. <i>Applied Surface Science</i> , <b>2008</b> , 255, 844-846   | 6.7 | 23  |
| 198 | Molecular depth profiling of trehalose using a C60 cluster ion beam. <i>Applied Surface Science</i> , <b>2008</b> , 255, 959-961   | 6.7 | 20  |
| 197 | The effect of incident angle on the C(60) bombardment of molecular solids. <i>Applied Surface Science</i> , <b>2008</b> , 255, 1068-1070   | 6.7 | 28  |
| 196 | Inhibition of HMG CoA reductase reveals an unexpected role for cholesterol during PGC migration in the mouse. <i>BMC Developmental Biology</i> , <b>2008</b> , 8, 120                                      | 3.1 | 18  |
| 195 | Chemically alternating Langmuir-Blodgett thin films as a model for molecular depth profiling by mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2008</b> , 19, 96-102 | 3.5 | 37  |
| 194 | Relative Quantification of Cellular Sections with Molecular Depth Profiling ToF-SIMS Imaging. <i>Applied Surface Science</i> , <b>2008</b> , 255, 1158-1161  | 6.7 | 10  |
| 193 | Which is more important in bioimaging SIMS experiments-The sample preparation or the nature of the projectile?. <i>Applied Surface Science</i> , <b>2008</b> , 255, 1298-1304                              | 6.7 | 27  |
| 192 | Biological tissue imaging with a hybrid cluster SIMS quadrupole time-of-flight mass spectrometer. <i>Applied Surface Science</i> , <b>2008</b> , 255, 1572-1575  | 6.7 | 20  |
| 191 | Cluster SIMS with a hybrid quadrupole time-of-flight mass spectrometer. <i>Applied Surface Science</i> , <b>2008</b> , 255, 1610-1613  | 6.7 | 16  |
| 190 | Fundamental studies of molecular depth profiling and 3D imaging using Langmuir-Blodgett films as a model. <i>Applied Surface Science</i> , <b>2008</b> , 255, 816-818                                      | 6.7 | 14  |



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| 189 | Investigating lipid-lipid and lipid-protein interactions in model membranes by ToF-SIMS. <i>Applied Surface Science</i> , <b>2008</b> , 255, 1190-1192  | 6.7  | 14  |
| 188 | Controlling energy deposition during the C60+ bombardment of silicon: The effect of incident angle geometry. <i>Applied Surface Science</i> , <b>2008</b> , 255, 886-889  | 6.7  | 15  |
| 187 | Molecular depth profiling and imaging using cluster ion beams with femtosecond laser postionization. <i>Applied Surface Science</i> , <b>2008</b> , 255, 831-833  | 6.7  | 20  |
| 186 | Three-dimensional molecular imaging using mass spectrometry and atomic force microscopy. <i>Applied Surface Science</i> , <b>2008</b> , 255, 984-986  | 6.7  | 24  |
| 185 | Imaging macrophages in trehalose with SIMS. <i>Applied Surface Science</i> , <b>2008</b> , 255, 929-933   | 6.7  | 9   |
| 184 | Single-Cell Level Mass Spectrometric Imaging <b>2008</b> , 4046-4056  |      |     |
| 183 | Effect of cluster size in kiloelectronvolt cluster bombardment of solid benzene. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 494-9  | 7.8  | 45  |
| 182 | Protocols for three-dimensional molecular imaging using mass spectrometry. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 5529-39  | 7.8  | 97  |
| 181 | Localization of sphingomyelin in cholesterol domains by imaging mass spectrometry. <i>Langmuir</i> , <b>2007</b> , 23, 5645-50  | 4    | 48  |
| 180 | Dynamics of Interaction of Magnesium Atoms on Methoxy-Terminated Self-Assembled Monolayers: An Example of a Reactive Metal with a Low Sticking Probability. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 765-772   | 3.8  | 24  |
| 179 | Sputtering yields for C60 and Au <sub>3</sub> bombardment of water ice as a function of incident kinetic energy. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 4493-8   | 7.8  | 64  |
| 178 | Sphingomyelin/phosphatidylcholine and cholesterol interactions studied by imaging mass spectrometry. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 15730-1   | 16.4 | 71  |
| 177 | The regulation of integrin-mediated osteoblast focal adhesion and focal adhesion kinase expression by nanoscale topography. <i>Biomaterials</i> , <b>2007</b> , 28, 1787-97   | 15.6 | 204 |
| 176 | Direct comparison of Au(3)(+) and C(60)(+) cluster projectiles in SIMS molecular depth profiling. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2007</b> , 18, 406-12   | 3.5  | 56  |
| 175 | Secondary ion MS imaging to relatively quantify cholesterol in the membranes of individual cells from differentially treated populations. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 3554-60   | 7.8  | 91  |
| 174 | Role of low-level impurities and intercalated molecular gases in the $\alpha$ particle radiolysis of polytetrafluoroethylene examined by static time-of-flight secondary-ion-mass spectrometry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2006</b> , 24, 1166-1171 | 2.9  | 1   |
| 173 | Surface sensitivity in cluster-ion-induced sputtering. <i>Physical Review Letters</i> , <b>2006</b> , 96, 216104  | 7.4  | 52  |
| 172 | Metal nanoparticle deposition for TOF-SIMS signal enhancement of polymers. <i>Analytical Chemistry</i> , <b>2006</b> , 78, 141-8  | 7.8  | 41  |



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| 171 | Spectroscopically encoded resins for high throughput imaging time-of-flight secondary ion mass spectrometry. <i>ACS Combinatorial Science</i> , <b>2006</b> , 8, 18-25  |      | 16  |
| 170 | TOF-SIMS evidence of intercalated molecular gases and diffusion-limited reaction kinetics in an alpha particle-irradiated PTFE matrix. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 1820-9                           | 3.4  | 5   |
| 169 | Controlling gold atom penetration through alkanethiolate self-assembled monolayers on Au{111} by adjusting terminal group intermolecular interactions. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 13710-9 | 16.4 | 58  |
| 168 | Molecular depth profiling with cluster ion beams. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 8329-36   | 3.4  | 173 |
| 167 | Surface and depth profiling investigation of a drug-loaded copolymer utilized to coat taxus express2 stents. <i>Analytical Chemistry</i> , <b>2006</b> , 78, 8347-53  | 7.8  | 36  |
| 166 | Looking at surfaces with cluster ion beams. <i>Materials Today</i> , <b>2006</b> , 9, 50-51   | 21.8 | 1   |
| 165 | Mechanical properties and the evolution of matrix molecules in PTFE upon irradiation with MeV alpha particles. <i>Applied Surface Science</i> , <b>2006</b> , 253, 1330-1342  | 6.7  | 14  |
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| 36 | Mechanism of fragmentation of organic molecules during keV particle bombardment. <i>International Journal of Mass Spectrometry and Ion Physics</i> , <b>1983</b> , 52, 217-221                            |      | 5   |
| 35 | Characterization of solids and surfaces using ion beams and mass spectrometry. <i>Progress in Solid State Chemistry</i> , <b>1981</b> , 13, 285-375   | 8    | 66  |
| 34 | Image potential and ion trajectories in secondary-ion mass spectrometry. <i>Physical Review B</i> , <b>1981</b> , 24, 6178-6181   | 3.3  | 38  |
| 33 | Design and performance of an energy- and angle-resolved secondary ion mass spectrometer. <i>Review of Scientific Instruments</i> , <b>1981</b> , 52, 1148-1155  | 1.7  | 27  |
| 32 | X-ray photoelectron spectra of some dirhodium carboxylate complexes. <i>Inorganica Chimica Acta</i> , <b>1980</b> , 44, L139-L141   | 2.7  | 37  |
| 31 | Azimuthal Anisotropies of Dimer Ions Ejected from Ion Bombarded Ni(001). <i>Physical Review Letters</i> , <b>1980</b> , 44, 756-759   | 7.4  | 51  |
| 30 | Oxidation of polycrystalline indium studied by x-ray photoelectron spectroscopy and static secondary ion mass spectroscopy. <i>Journal of Applied Physics</i> , <b>1980</b> , 51, 2620                    | 2.5  | 110 |
| 29 | Surface structure determinations with ion beams. <i>Accounts of Chemical Research</i> , <b>1980</b> , 13, 406-412   | 24.3 | 39  |
| 28 | X-ray photoelectron spectra of N-methyltetraphenylporphyrins: evidence for a correlation of binding energies with metal-nitrogen bond distances. <i>Inorganic Chemistry</i> , <b>1979</b> , 18, 1776-1780 | 5.1  | 31  |

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| 27 | Ejection of molecular clusters from ion-bombarded surfaces. <i>Journal of Vacuum Science and Technology</i> , <b>1979</b> , 16, 789-792  |      | 41  |
| 26 | Instrument combining x-ray photoelectron spectroscopy and secondary ion mass spectrometry for surface studies. <i>Review of Scientific Instruments</i> , <b>1979</b> , 50, 1386  | 1.7  | 9   |
| 25 | Surface Structure from Angle-Resolved Secondary-Ion Mass Spectrometry: Oxygen on Cu(001). <i>Physical Review Letters</i> , <b>1979</b> , 43, 220-223   | 7.4  | 100 |
| 24 | Particle ejection from ion-bombarded clean and reacted single-crystal surfaces. <i>Journal of Vacuum Science and Technology</i> , <b>1979</b> , 16, 629-634  |      | 36  |
| 23 | The Dynamics of Ion-Solid Interactions: A Basis for Understanding SIMS. <i>Springer Series in Chemical Physics</i> , <b>1979</b> , 2-6   | 0.3  | 1   |
| 22 | Characterization of metal surfaces by secondary ion mass spectrometry x-ray photoelectron spectroscopy. <i>Analytical Chemistry</i> , <b>1978</b> , 50, 1286-1290  | 7.8  | 4   |
| 21 | Structure sensitive factors in molecular cluster formation by ion bombardment of single crystal surfaces. <i>Surface Science</i> , <b>1978</b> , 78, 467-477   | 1.8  | 112 |
| 20 | Low energy ion impact phenomena on single crystal surfaces. <i>Surface Science</i> , <b>1978</b> , 76, 311-322   | 1.8  | 164 |
| 19 | Investigation of the oxidation of polycrystalline lead by XPS and SIMS. <i>Surface Science</i> , <b>1978</b> , 78, 1-14  | 1.8  | 37  |
| 18 | Stoichiometric determination of chlorophyll a-water aggregates and photosynthesis. Symbiotic roles of the magnesium atom and the ring V cyclopentanone group in the structural and photochemical properties of chlorophyll a monohydrate and dihydrate. <i>Journal of the American Chemical Society</i> , <b>1978</b> , 100, 5203-5207 | 16.4 | 39  |
| 17 | System for transferring samples between chambers in UHV. <i>Journal of Vacuum Science and Technology</i> , <b>1978</b> , 15, 1756-1760   |      | 20  |
| 16 | Angular Distributions of Ejected Particles from Ion-Bombarded Clean and Reacted Single-Crystal Surfaces. <i>Physical Review Letters</i> , <b>1978</b> , 41, 1120-1123  | 7.4  | 73  |
| 15 | Atomic and molecular ejection from ion-bombarded reacted single-crystal surfaces. Oxygen on copper(100). <i>Physical Review B</i> , <b>1978</b> , 18, 6000-6010  | 3.3  | 97  |
| 14 | Formation of small metal clusters by ion bombardment of single crystal surfaces. <i>Journal of Chemical Physics</i> , <b>1978</b> , 69, 1440-1444  | 3.9  | 125 |
| 13 | X-ray photoelectron spectroscopic studies of the thermal stability of chlorophyll a monohydrate. <i>Journal of the American Chemical Society</i> , <b>1976</b> , 98, 2369-2370   | 16.4 | 15  |
| 12 | In vitro solar conversion after the primary light reaction in photosynthesis. Reversible photogalvanic effects of chlorophyll-quinhydrone half-cell reactions. <i>Journal of the American Chemical Society</i> , <b>1976</b> , 98, 2287-9  | 16.4 | 50  |
| 11 | L3M23M23 Auger energies of metallic Ni, Cu, and Zn: Influence of 3d-4s admixed screening on calculating relaxation energies. <i>Physical Review B</i> , <b>1976</b> , 14, 2281-2286  | 3.3  | 17  |
| 10 | X-ray photoelectron spectroscopic studies of cadmium- and silver-oxygen surfaces. <i>Analytical Chemistry</i> , <b>1975</b> , 47, 2193-2199  | 7.8  | 243 |

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|---|--|------|-----|
| 9 | X-ray photoelectron spectroscopic studies of silver(III) octaethylporphyrin. <i>Journal of the American Chemical Society</i> , <b>1974</b> , 96, 591-592   | 16.4 | 42  |
| 8 | X-ray photoelectron spectroscopic studies of nickel-oxygen surfaces using oxygen and argon ion-bombardment. <i>Surface Science</i> , <b>1974</b> , 43, 625-643                                       | 1.8  | 644 |
| 7 | X-ray photoelectron spectroscopic studies of palladium oxides and the palladium-oxygen electrode. <i>Analytical Chemistry</i> , <b>1974</b> , 46, 197-200  | 7.8  | 367 |
| 6 | X-ray photoelectron spectra of lead oxides. <i>Analytical Chemistry</i> , <b>1973</b> , 45, 2214-2218  | 7.8  | 180 |
| 5 | Application of coulostatic charge injection techniques to improve potentiostat risetimes. <i>Analytical Chemistry</i> , <b>1972</b> , 44, 2152-2156  | 7.8  | 8   |
| 4 | Homogeneous electron-transfer reactions studied by internal reflection spectroelectrochemistry. <i>Journal of the American Chemical Society</i> , <b>1971</b> , 93, 4343-4350                        | 16.4 | 36  |
| 3 | High sensitivity internal reflection spectroelectrochemistry for direct monitoring of diffusing species using signal averaging. <i>Analytical Chemistry</i> , <b>1971</b> , 43, 252-259              | 7.8  | 23  |
| 2 | Correction. High Sensitivity Internal Reflection Spectroelectrochemistry for Direct Monitoring of Diffusing Species Using Signal Averaging.. <i>Analytical Chemistry</i> , <b>1971</b> , 43, 755-755 | 7.8  | 2   |
| 1 | Evaluation of fast homogeneous electron-exchange reaction rates using electrochemistry and reflection spectroscopy. <i>Journal of the American Chemical Society</i> , <b>1970</b> , 92, 224-226      | 16.4 | 41  |