Joshua S Sharp

List of Publications by Year
in descending order

65 papers	2,209 citations	218677 26 h-index	243625 44 g-index
79 all docs	79 docs citations	79 times ranked	1948 citing authors

#	Article	IF	Citations
1	Fast Photochemical Oxidation of Protein Footprints Faster than Protein Unfolding. Analytical Chemistry, 2009, 81, 6563-6571.	6.5	195
2	Effective Inhibition of SARS-CoV-2 Entry by Heparin and Enoxaparin Derivatives. Journal of Virology, 2021, 95, .	3.4	176
3	Analysis of Protein Solvent Accessible Surfaces by Photochemical Oxidation and Mass Spectrometry. Analytical Chemistry, 2004, 76, 672-683.	6.5	172
4	Protein surface mapping by chemical oxidation: Structural analysis by mass spectrometry. Analytical Biochemistry, 2003, 313, 216-225.	2.4	138
5	Oligomeric Structure of the Chemokine CCL5/RANTES from NMR, MS, and SAXS Data. Structure, 2011, 19, 1138-1148.	3.3	79
6	Pulsed Electron Beam Water Radiolysis for Submicrosecond Hydroxyl Radical Protein Footprinting. Analytical Chemistry, 2009, 81, 2496-2505.	6.5	67
7	Quantifying protein interface footprinting by hydroxyl radical oxidation and molecular dynamics simulation: Application to galectin-1. Journal of the American Society for Mass Spectrometry, 2008, 19, 1692-1705.	2.8	65
8	Quantitative Protein Topography Measurements by High Resolution Hydroxyl Radical Protein Footprinting Enable Accurate Molecular Model Selection. Scientific Reports, 2017, 7, 4552.	3.3	60
9	Synergistic Roles of Helicobacter pylori Methionine Sulfoxide Reductase and GroEL in Repairing Oxidant-damaged Catalase. Journal of Biological Chemistry, 2011, 286, 19159-19169.	3.4	58
10	High Structural Resolution Hydroxyl Radical Protein Footprinting Reveals an Extended Robo1-Heparin Binding Interface. Journal of Biological Chemistry, 2015, 290, 10729-10740.	3.4	54
11	Hydroxyl Radical Dosimetry for High Flux Hydroxyl Radical Protein Footprinting Applications Using a Simple Optical Detection Method. Analytical Chemistry, 2015, 87, 10719-10723.	6.5	52
12	Analysis of the Oxidative Damage-Induced Conformational Changes of Apo- and Holocalmodulin by Dose-Dependent Protein Oxidative Surface Mapping. Biophysical Journal, 2007, 92, 1682-1692.	0.5	51
13	Characterization of Glycosaminoglycans by¹⁵N NMR Spectroscopy and in Vivo Isotopic Labeling. Analytical Chemistry, 2010, 82, 4078-4088.	6.5	51
14	An oligopeptide transporter gene family in Arabidopsis. Plant Physiology, 2002, 128, 21-9.	4.8	47
15	Conformational Analysis of Therapeutic Proteins by Hydroxyl Radical Protein Footprinting. AAPS Journal, 2012, 14, 206-217.	4.4	46
16	LC-MS^{<i>n</i>} Analysis of Isomeric Chondroitin Sulfate Oligosaccharides Using a Chemical Derivatization Strategy. Journal of the American Society for Mass Spectrometry, 2011, 22, 1577-87.	2.8	44
17	Integrated Approach to Identify Heparan Sulfate Ligand Requirements of Robo1. Journal of the American Chemical Society, 2016, 138, 13059-13067.	13.7	42
18	Exploiting enzyme specificities in digestions of chondroitin sulfates A and C: Production of well-defined hexasaccharides. Glycobiology, 2012, 22, 826-838.	2.5	38

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19	An Approach for Separation and Complete Structural Sequencing of Heparin/Heparan Sulfate-like Oligosaccharides. Analytical Chemistry, 2013, 85, 5787-5795.	6.5	37
20	Photochemical surface mapping of C14S-Sml1p for constrained computational modeling of protein structure. Analytical Biochemistry, 2005, 340, 201-212.	2.4	36
21	Aliphatic peptidyl hydroperoxides as a source of secondary oxidation in hydroxyl radical protein footprinting. Journal of the American Society for Mass Spectrometry, 2009, 20, 1123-1126.	2.8	33
22	Measurement of Multisite Oxidation Kinetics Reveals an Active Site Conformational Change in Spo0F as a Result of Protein Oxidation. Biochemistry, 2006, 45, 6260-6266.	2.5	31
23	Effects of Anion Proximity in Peptide Primary Sequence on the Rate and Mechanism of Leucine Oxidation. Analytical Chemistry, 2006, 78, 4885-4893.	6.5	31
24	De Novo Sequencing of Complex Mixtures of Heparan Sulfate Oligosaccharides. Analytical Chemistry, 2016, 88, 5299-5307.	6.5	31
25	Cryo-EM reveals the architecture of placental malaria VAR2CSA and provides molecular insight into chondroitin sulfate binding. Nature Communications, 2021, 12, 2956.	12.8	30
26	Improved Identification and Relative Quantification of Sites of Peptide and Protein Oxidation for Hydroxyl Radical Footprinting. Journal of the American Society for Mass Spectrometry, 2013, 24, 1767-1776.	2.8	27
27	Structural Analysis of the Glycosylated Intact HIV-1 gp120â€“b12 Antibody Complex Using Hydroxyl Radical Protein Footprinting. Biochemistry, 2017, 56, 957-970.	2.5	27
28	Real Time Normalization of Fast Photochemical Oxidation of Proteins Experiments by Inline Adenine Radical Dosimetry. Analytical Chemistry, 2018, 90, 12625-12630.	6.5	27
29	Noncatalytic Antioxidant Role for Helicobacter pylori Urease. Journal of Bacteriology, 2018, 200, .	2.2	27
30	GAG-ID: Heparan Sulfate (HS) and Heparin Glycosaminoglycan High-Throughput Identification Software*. Molecular and Cellular Proteomics, 2015, 14, 1720-1730.	3.8	26
31	Conversion of methionine into homocysteic acid in heavily oxidized proteomics samples. Rapid Communications in Mass Spectrometry, 2010, 24, 768-772.	1.5	24
32	Compensated Hydroxyl Radical Protein Footprinting Measures Buffer and Excipient Effects on Conformation and Aggregation in an Adalimumab Biosimilar. AAPS Journal, 2019, 21, 87.	4.4	23
33	Flash Oxidation (FOX) System: A Novel Laser-Free Fast Photochemical Oxidation Protein Footprinting Platform. Journal of the American Society for Mass Spectrometry, 2021, 32, 1601-1609.	2.8	23
34	Probing the pH-Dependent Prepore to Pore Transition of <i>Bacillus anthracis</i> Protective Antigen with Differential Oxidative Protein Footprinting. Biochemistry, 2008, 47, 10694-10704.	2.5	21
35	Allosteric regulation of lysosomal enzyme recognition by the cation-independent mannose 6-phosphate receptor. Communications Biology, 2020, 3, 498.	4.4	20
36	Alkyl Hydroperoxide Reductase Repair by Helicobacter pylori Methionine Sulfoxide Reductase. Journal of Bacteriology, 2013, 195, 5396-5401.	2.2	19

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37	Relative Quantification of Sites of Peptide and Protein Modification Using Size Exclusion Chromatography Coupled with Electron Transfer Dissociation. Journal of the American Society for Mass Spectrometry, 2016, 27, 1322-1327.	2.8	19
38	The degree of polymerization and sulfation patterns in heparan sulfate are critical determinants of cytomegalovirus entry into host cells. PLoS Pathogens, 2021, 17, e1009803.	4.7	17
39	Improved de novo sequencing of heparin/heparan sulfate oligosaccharides by propionylation of sites of sulfation. Carbohydrate Research, 2018, 465, 16-21.	2.3	16
40	Rapid identification of oxidationâ€induced conformational changes by kinetic analysis. Rapid Communications in Mass Spectrometry, 2007, 21, 3927-3936.	1.5	15
41	De Novo Design of a Self-Assembled Artificial Copper Peptide that Activates and Reduces Peroxide. ACS Catalysis, 2021, 11, 10267-10278.	11.2	15
42	Structural characterization of the E2 glycoprotein from Sindbis by lysine biotinylation and LC-MS/MS. Virology, 2006, 348, 216-223.	2.4	14
43	Supercharging by <i>m</i>-NBA Improves ETD-Based Quantification of Hydroxyl Radical Protein Footprinting. Journal of the American Society for Mass Spectrometry, 2015, 26, 1424-1427.	2.8	13
44	Intrinsic Buffer Hydroxyl Radical Dosimetry Using Tris(hydroxymethyl)aminomethane. Journal of the American Society for Mass Spectrometry, 2020, 31, 169-172.	2.8	12
45	Formation of [b(nâ^'1)+OH+H]+ ion structural analogs by solution-phase chemistry. Journal of the American Society for Mass Spectrometry, 2005, 16, 607-621.	2.8	11
46	Variation in FPOP Measurements Is Primarily Caused by Poor Peptide Signal Intensity. Journal of the American Society for Mass Spectrometry, 2018, 29, 1901-1907.	2.8	11
47	Towards high-throughput fast photochemical oxidation of proteins: Quantifying exposure in high fluence microtiter plate photolysis. Analytical Biochemistry, 2018, 561-562, 32-36.	2.4	10
48	Myxobacterial Response to Methyljasmonate Exposure Indicates Contribution to Plant Recruitment of Micropredators. Frontiers in Microbiology, 2020, 11, 34.	3.5	10
49	A Multivariate Mixture Model to Estimate the Accuracy of Glycosaminoglycan Identifications Made by Tandem Mass Spectrometry (MS/MS) and Database Search. Molecular and Cellular Proteomics, 2017, 16, 255-264.	3.8	9
50	Salt-free fractionation of complex isomeric mixtures of glycosaminoglycan oligosaccharides compatible with ESI-MS and microarray analysis. Scientific Reports, 2019, 9, 16566.	3.3	7
51	Conformational properties of l-fucose and the tetrasaccharide building block of the sulfated l-fucan from Lytechinus variegatus. Journal of Structural Biology, 2020, 209, 107407.	2.8	7
52	Enabling Real-Time Compensation in Fast Photochemical Oxidations of Proteins for the Determination of Protein Topography Changes. Journal of Visualized Experiments, 2020, , .	0.3	7
53	Self-Organized Amphiphiles Are Poor Hydroxyl Radical Scavengers in Fast Photochemical Oxidation of Proteins Experiments. Journal of the American Society for Mass Spectrometry, 2021, 32, 1155-1161.	2.8	6
54	Laser-free Hydroxyl Radical Protein Footprinting to Perform Higher Order Structural Analysis of Proteins. Journal of Visualized Experiments, 2021, , .	0.3	6

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55	Mistakes in translation: Reflections on mechanism. PLoS ONE, 2017, 12, e0180566.	2.5	6
56	Validated determination of NRG1 Ig-like domain structure by mass spectrometry coupled with computational modeling. Communications Biology, 2022, 5, 452.	4.4	6
57	Peracylation Coupled with Tandem Mass Spectrometry for Structural Sequencing of Sulfated Glycosaminoglycan Mixtures without Depolymerization. Journal of the American Society for Mass Spectrometry, 2020, 31, 2061-2072.	2.8	5
58	Inline Liquid Chromatographyâ€"Fast Photochemical Oxidation of Proteins for Targeted Structural Analysis of Conformationally Heterogeneous Mixtures. Analytical Chemistry, 2021, 93, 3510-3516.	6.5	5
59	Rapid Quantification of Peptide Oxidation Isomers From Complex Mixtures. Analytical Chemistry, 2020, 92, 3834-3843.	6.5	3
60	Top-Down ETD-MS Provides Unreliable Quantitation of Methionine Oxidation. Journal of Biomolecular Techniques, 2019, 30, jbt.19-3004-002.	1.5	3
61	Safety and Pharmacokinetics of Intranasally Administered Heparin. Pharmaceutical Research, 2022, 39, 541-551.	3.5	3
62	Structural analysis of glycosaminoglycans from Oviductus ranae. Glycoconjugate Journal, 2021, 38, 25-33.	2.7	2
63	A Comprehensive Workflow for the Analysis of Bio-Macromolecular Supplements: Case Study of 20 Whey Protein Products. Journal of Dietary Supplements, 2021, , 1-19.	2.6	2
64	Rational Design of a Cu Chelator That Mitigates Cuâ€Induced ROS Production by Amyloid Beta. ChemBioChem, 2022, 23, .	2.6	2
65	De Novo Sequencing of Heparin/Heparan by Chemical Derivatization and LC-MS/MS. Methods in Molecular Biology, 2022, 2303, 163-172.	0.9	0