

Wengang Chai

List of Publications by Year in descending order

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98
papers

7,253
citations

66343

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83
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101
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101
docs citations

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times ranked

6479
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Siglec-15 recognition of sialoglycans on tumor cell lines can occur independently of sialyl Tn antigen expression. <i>Glycobiology</i> , 2021, 31, 44-54. | 2.5 | 19 |
| 2 | Characterization of rat and mouse acidic milk oligosaccharides based on hydrophilic interaction chromatography coupled with electrospray tandem mass spectrometry. <i>Carbohydrate Polymers</i> , 2021, 259, 117734. | 10.2 | 13 |
| 3 | Noncovalent microarrays from synthetic amino-terminating glycans: Implications in expanding glycan microarray diversity and platform comparison. <i>Glycobiology</i> , 2021, 31, 931-946. | 2.5 | 6 |
| 4 | Defining the Glycosaminoglycan Interactions of Complement Factor H-Related Protein 5. <i>Journal of Immunology</i> , 2021, 207, 534-541. | 0.8 | 9 |
| 5 | The effect of N-glycosylation of SARS-CoV-2 spike protein on the virus interaction with the host cell ACE2 receptor. <i>iScience</i> , 2021, 24, 103272. | 4.1 | 20 |
| 6 | SARS-CoV-2 spike protein causes blood coagulation and thrombosis by competitive binding to heparan sulfate. <i>International Journal of Biological Macromolecules</i> , 2021, 193, 1124-1129. | 7.5 | 25 |
| 7 | Mapping Molecular Recognition of α 1,3-1,4-Glucans by a Surface Glycan-Binding Protein from the Human Gut Symbiont <i>Bacteroides ovatus</i> . <i>Microbiology Spectrum</i> , 2021, 9, e0182621. | 3.0 | 3 |
| 8 | Structural Basis of Glycan Recognition in Globally Predominant Human P[8] Rotavirus. <i>Virologica Sinica</i> , 2020, 35, 156-170. | 3.0 | 19 |
| 9 | Identification of carbohydrate peripheral epitopes important for recognition by positive-ion MALDI multistage mass spectrometry. <i>Carbohydrate Polymers</i> , 2020, 229, 115528. | 10.2 | 7 |
| 10 | Molecular basis for the preferential recognition of α 1,3-1,4-glucans by the family 11 carbohydrate-binding module from <i>Clostridium thermocellum</i> . <i>FEBS Journal</i> , 2020, 287, 2723-2743. | 4.7 | 9 |
| 11 | Chikungunya Virus Strains from Each Genetic Clade Bind Sulfated Glycosaminoglycans as Attachment Factors. <i>Journal of Virology</i> , 2020, 94, . | 3.4 | 21 |
| 12 | Multistage mass spectrometry with intelligent precursor selection for N-glycan branching pattern analysis. <i>Carbohydrate Polymers</i> , 2020, 237, 116122. | 10.2 | 6 |
| 13 | Mannan detecting C-type lectin receptor probes recognise immune epitopes with diverse chemical, spatial and phylogenetic heterogeneity in fungal cell walls. <i>PLoS Pathogens</i> , 2020, 16, e1007927. | 4.7 | 52 |
| 14 | Glycan Markers of Human Stem Cells Assigned with Beam Search Arrays*[S]. <i>Molecular and Cellular Proteomics</i> , 2019, 18, 1981-2002. | 3.8 | 15 |
| 15 | Mucin O-glycan microarrays. <i>Current Opinion in Structural Biology</i> , 2019, 56, 187-197. | 5.7 | 23 |
| 16 | Profiling of Human Milk Oligosaccharides for Lewis Epitopes and Secretor Status by Electrostatic Repulsion Hydrophilic Interaction Chromatography Coupled with Negative-Ion Electrospray Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2019, 91, 8199-8206. | 6.5 | 13 |
| 17 | Linkage and sequence analysis of neutral oligosaccharides by negative-ion MALDI tandem mass spectrometry with laser-induced dissociation. <i>Analytica Chimica Acta</i> , 2019, 1071, 25-35. | 5.4 | 13 |
| 18 | Sulfated Glycosaminoglycans as Viral Decoy Receptors for Human Adenovirus Type 37. <i>Viruses</i> , 2019, 11, 247. | 3.3 | 27 |

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|----|---|------|-----------|
| 19 | Chemoenzymatic Synthesis of α -Mannose Glycans Containing Sulfated or Nonsulfated HNK-1 Epitope. <i>Journal of the American Chemical Society</i> , 2019, 141, 19351-19359. | 13.7 | 22 |
| 20 | Fucosylated chondroitin sulfate from <i>Isostichopus badionotus</i> alleviates metabolic syndromes and gut microbiota dysbiosis induced by high-fat and high-fructose diet. <i>International Journal of Biological Macromolecules</i> , 2019, 124, 377-388. | 7.5 | 41 |
| 21 | Polysialic acid is a cellular receptor for human adenovirus 52. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E4264-E4273. | 7.1 | 70 |
| 22 | Profiling of Sialylated Oligosaccharides in Mammalian Milk Using Online Solid Phase Extraction-Hydrophilic Interaction Chromatography Coupled with Negative-Ion Electrospray Mass Spectrometry. <i>Analytical Chemistry</i> , 2018, 90, 3174-3182. | 6.5 | 46 |
| 23 | Glycan Binding Specificity and Mechanism of Human and Porcine P[6]/P[19] Rotavirus VP8*s. <i>Journal of Virology</i> , 2018, 92, . | 3.4 | 23 |
| 24 | Human Group C Rotavirus VP8*s Recognize Type A Histo-Blood Group Antigens as Ligands. <i>Journal of Virology</i> , 2018, 92, . | 3.4 | 21 |
| 25 | O-Glycome Beam Search Arrays for Carbohydrate Ligand Discovery. <i>Molecular and Cellular Proteomics</i> , 2018, 17, 121-133. | 3.8 | 23 |
| 26 | Toward Automated Identification of Glycan Branching Patterns Using Multistage Mass Spectrometry with Intelligent Precursor Selection. <i>Analytical Chemistry</i> , 2018, 90, 14412-14422. | 6.5 | 23 |
| 27 | Insights Into Glucan Polysaccharide Recognition Using Glucooligosaccharide Microarrays With Oxime-Linked Neoglycolipid Probes. <i>Methods in Enzymology</i> , 2018, 598, 139-167. | 1.0 | 10 |
| 28 | Assignment by Negative-Ion Electrospray Tandem Mass Spectrometry of the Tetrasaccharide Backbones of Monosialylated Glycans Released from Bovine Brain Gangliosides. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 1308-1318. | 2.8 | 3 |
| 29 | Novel monoclonal antibody L2A5 specifically targeting sialyl-Tn and short glycans terminated by α -6 sialic acids. <i>Scientific Reports</i> , 2018, 8, 12196. | 3.3 | 29 |
| 30 | Abnormally High Content of Free Glucosamine Residues Identified in a Preparation of Commercially Available Porcine Intestinal Heparan Sulfate. <i>Analytical Chemistry</i> , 2016, 88, 6648-6652. | 6.5 | 8 |
| 31 | Generation and characterization of α 1,2-gluco-oligosaccharide probes from <i>Brucella abortus</i> cyclic α -glucan and their recognition by C-type lectins of the immune system. <i>Glycobiology</i> , 2016, 26, 1086-1096. | 2.5 | 16 |
| 32 | Unravelling Glucan Recognition Systems by Glycome Microarrays Using the Designer Approach and Mass Spectrometry. <i>Molecular and Cellular Proteomics</i> , 2015, 14, 974-988. | 3.8 | 58 |
| 33 | Negative-Ion Electrospray Tandem Mass Spectrometry and Microarray Analyses of Developmentally Regulated Antigens Based on Type 1 and Type 2 Backbone Sequences. <i>Analytical Chemistry</i> , 2015, 87, 11871-11878. | 6.5 | 12 |
| 34 | Carbohydrate Sequence of the Prostate Cancer-associated Antigen F77 Assigned by a Mucin O-Glycome Designer Array. <i>Journal of Biological Chemistry</i> , 2014, 289, 16462-16477. | 3.4 | 51 |
| 35 | Fucosylated Chondroitin Sulfates from the Body Wall of the Sea Cucumber <i>Holothuria forskali</i> . <i>Journal of Biological Chemistry</i> , 2014, 289, 28284-28298. | 3.4 | 88 |
| 36 | Structural Basis for Multiple Sugar Recognition of Jacalin-related Human ZG16p Lectin. <i>Journal of Biological Chemistry</i> , 2014, 289, 16954-16965. | 3.4 | 47 |

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|----|--|------|-----------|
| 37 | The neoglycolipid (NGL)-based oligosaccharide microarray system poised to decipher the meta-glycome. <i>Current Opinion in Chemical Biology</i> , 2014, 18, 87-94. | 6.1 | 79 |
| 38 | Conformational Analysis of the <i>Streptococcus pneumoniae</i> Hyaluronate Lyase and Characterization of Its Hyaluronan-specific Carbohydrate-binding Module. <i>Journal of Biological Chemistry</i> , 2014, 289, 27264-27277. | 3.4 | 17 |
| 39 | Sulfation pattern of the fucose branch is important for the anticoagulant and antithrombotic activities of fucosylated chondroitin sulfates. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 3054-3066. | 2.4 | 98 |
| 40 | Typing of Blood-Group Antigens on Neutral Oligosaccharides by Negative-Ion Electrospray Ionization Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2013, 85, 5940-5949. | 6.5 | 18 |
| 41 | Heparin increases the infectivity of Human Papillomavirus Type 16 independent of cell surface proteoglycans and induces L1 epitope exposure. <i>Cellular Microbiology</i> , 2013, 15, n/a-n/a. | 2.1 | 57 |
| 42 | Galactose Recognition by the Apicomplexan Parasite <i>Toxoplasma gondii</i> . <i>Journal of Biological Chemistry</i> , 2012, 287, 16720-16733. | 3.4 | 40 |
| 43 | Sequence determination and anticoagulant and antithrombotic activities of a novel sulfated fucan isolated from the sea cucumber <i>Isostichopus badionotus</i> . <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2012, 1820, 989-1000. | 2.4 | 129 |
| 44 | Structural characterization of natural ideal 6-O-sulfated agarose from red alga <i>Gloiopeltis furcata</i> . <i>Carbohydrate Polymers</i> , 2012, 89, 883-889. | 10.2 | 23 |
| 45 | Neoglycolipid-Based "Designer" Oligosaccharide Microarrays to Define β -Glucan Ligands for Dectin-1. <i>Methods in Molecular Biology</i> , 2012, 808, 337-359. | 0.9 | 8 |
| 46 | Neoglycolipid-Based Oligosaccharide Microarray System: Preparation of NGLs and Their Noncovalent Immobilization on Nitrocellulose-Coated Glass Slides for Microarray Analyses. <i>Methods in Molecular Biology</i> , 2012, 808, 117-136. | 0.9 | 64 |
| 47 | The human epithelial carcinoma antigen recognized by monoclonal antibody AE3 is expressed on a sulfoglycolipid in addition to neoplastic mucins. <i>Biochemical and Biophysical Research Communications</i> , 2011, 408, 548-552. | 2.1 | 22 |
| 48 | Specificities of <i>Ricinus communis</i> agglutinin 120 interaction with sulfated galactose. <i>FEBS Letters</i> , 2011, 585, 3927-3934. | 2.8 | 30 |
| 49 | Comparison of structures and anticoagulant activities of fucosylated chondroitin sulfates from different sea cucumbers. <i>Carbohydrate Polymers</i> , 2011, 83, 688-696. | 10.2 | 224 |
| 50 | The Role of Sialyl Glycan Recognition in Host Tissue Tropism of the Avian Parasite <i>Eimeria tenella</i> . <i>PLoS Pathogens</i> , 2011, 7, e1002296. | 4.7 | 58 |
| 51 | Sulfation of a squid ink polysaccharide and its inhibitory effect on tumor cell metastasis. <i>Carbohydrate Polymers</i> , 2010, 81, 560-566. | 10.2 | 60 |
| 52 | GM1 structure determines SV40-induced membrane invagination and infection. <i>Nature Cell Biology</i> , 2010, 12, 11-18. | 10.3 | 535 |
| 53 | Multifaceted Approaches Including Neoglycolipid Oligosaccharide Microarrays to Ligand Discovery for Malectin. <i>Methods in Enzymology</i> , 2010, 478, 265-286. | 1.0 | 9 |
| 54 | Effect and Limitation of Excess Ammonium on the Release of O-Glycans in Reducing Forms from Glycoproteins under Mild Alkaline Conditions for Glycomic and Functional Analysis. <i>Analytical Chemistry</i> , 2010, 82, 9534-9542. | 6.5 | 40 |

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|----|---|------|-----------|
| 55 | Receptor-binding specificity of pandemic influenza A (H1N1) 2009 virus determined by carbohydrate microarray. <i>Nature Biotechnology</i> , 2009, 27, 797-799. | 17.5 | 299 |
| 56 | Mechanism of mild acid hydrolysis of galactan polysaccharides with highly ordered disaccharide repeats leading to a complete series of exclusively odd-numbered oligosaccharides. <i>FEBS Journal</i> , 2009, 276, 2125-2137. | 4.7 | 112 |
| 57 | Sequence determination of a non-sulfated glycosaminoglycan-like polysaccharide from melanin-free ink of the squid <i>Ommastrephes bartrami</i> by negative-ion electrospray tandem mass spectrometry and NMR spectroscopy. <i>Glycoconjugate Journal</i> , 2008, 25, 481-492. | 2.7 | 55 |
| 58 | <i>N</i> -Glycolyl GM1 Ganglioside as a Receptor for Simian Virus 40. <i>Journal of Virology</i> , 2007, 81, 12846-12858. | 3.4 | 150 |
| 59 | Neoglycolipid Probes Prepared via Oxime Ligation for Microarray Analysis of Oligosaccharide-Protein Interactions. <i>Chemistry and Biology</i> , 2007, 14, 847-859. | 6.0 | 126 |
| 60 | Sequence Determination of Sulfated Carrageenan-Derived Oligosaccharides by High-Sensitivity Negative-Ion Electrospray Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2006, 78, 8499-8505. | 6.5 | 65 |
| 61 | Analysis of Chain and Blood Group Type and Branching Pattern of Sialylated Oligosaccharides by Negative Ion Electrospray Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2006, 78, 1581-1592. | 6.5 | 39 |
| 62 | Sequence analysis of alginate-derived oligosaccharides by negative-ion electrospray tandem mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2006, 17, 621-630. | 2.8 | 70 |
| 63 | First Synthesis of Heparan Sulfate Tetrasaccharides Containing both N-Acetylated and N-Unsubstituted Glucosamine-Search for Putative 10E4 Epitopes. <i>ChemBioChem</i> , 2006, 7, 1856-1858. | 2.6 | 21 |
| 64 | Preparation of Neoglycolipids with Ring-Closed Cores via Chemoselective Oxime Ligation for Microarray Analysis of Carbohydrate-Protein Interactions. <i>Methods in Enzymology</i> , 2006, 415, 326-340. | 1.0 | 28 |
| 65 | Ligands for the β -Glucan Receptor, Dectin-1, Assigned Using Designer-Microarrays of Oligosaccharide Probes (Neoglycolipids) Generated from Glucan Polysaccharides. <i>Journal of Biological Chemistry</i> , 2006, 281, 5771-5779. | 3.4 | 329 |
| 66 | Structural determination of novel lacto-N-decaose and its monofucosylated analogue from human milk by electrospray tandem mass spectrometry and 1H NMR spectroscopy. <i>Archives of Biochemistry and Biophysics</i> , 2005, 434, 116-127. | 3.0 | 45 |
| 67 | Determination by electrospray mass spectrometry and 1 H-NMR spectroscopy of primary structures of variously fucosylated neutral oligosaccharides based on the iso-lacto-N-octaose core. <i>FEBS Journal</i> , 2004, 271, 1172-1186. | 0.2 | 45 |
| 68 | Oligosaccharide microarrays to decipher the glyco code. <i>Nature Reviews Molecular Cell Biology</i> , 2004, 5, 582-588. | 37.0 | 237 |
| 69 | Relative Susceptibilities of the Glucosamine-Glucuronic Acid and N-Acetylglucosamine-Glucuronic Acid Linkages to Heparin Lyase III. <i>Biochemistry</i> , 2004, 43, 8590-8599. | 2.5 | 17 |
| 70 | Carbohydrate microarrays – a new set of technologies at the frontiers of glycomics. <i>Current Opinion in Structural Biology</i> , 2003, 13, 637-645. | 5.7 | 290 |
| 71 | On-Line Overpressure Thin-Layer Chromatographic Separation and Electrospray Mass Spectrometric Detection of Glycolipids. <i>Analytical Chemistry</i> , 2003, 75, 118-125. | 6.5 | 42 |
| 72 | Neoglycolipid Technology: Deciphering Information Content of Glycome. <i>Methods in Enzymology</i> , 2003, 362, 160-195. | 1.0 | 54 |

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|----|--|------|-----------|
| 73 | The Structural Motif in Chondroitin Sulfate for Adhesion of Plasmodium falciparum-infected Erythrocytes Comprises Disaccharide Units of 4-O-Sulfated and Non-sulfated N-Acetylgalactosamine Linked to Glucuronic Acid. <i>Journal of Biological Chemistry</i> , 2002, 277, 22438-22446. | 3.4 | 63 |
| 74 | An investigation of the interactions of E-selectin with fuco-oligosaccharides of the blood group family. <i>Glycobiology</i> , 2002, 12, 829-835. | 2.5 | 14 |
| 75 | Branching pattern and sequence analysis of underivatized oligosaccharides by combined MS/MS of singly and doubly charged molecular ions in negative-ion electrospray mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2002, 13, 670-679. | 2.8 | 122 |
| 76 | Oligosaccharide microarrays for high-throughput detection and specificity assignments of carbohydrate-protein interactions. <i>Nature Biotechnology</i> , 2002, 20, 1011-1017. | 17.5 | 613 |
| 77 | Expression of glycoconjugates bearing the Lewis X epitope during neural differentiation of P19 EC cells. <i>FEBS Letters</i> , 2001, 488, 23-28. | 2.8 | 8 |
| 78 | Negative-Ion Electrospray Mass Spectrometry of Neutral Underivatized Oligosaccharides. <i>Analytical Chemistry</i> , 2001, 73, 651-657. | 6.5 | 203 |
| 79 | 10E4 Antigen of Scrapie Lesions Contains an Unusual Nonsulfated Heparan Motif. <i>Journal of Biological Chemistry</i> , 2001, 276, 12539-12545. | 3.4 | 59 |
| 80 | Inhibition of Adhesion of Plasmodium falciparum-Infected Erythrocytes by Structurally Defined Hyaluronic Acid Dodecasaccharides. <i>Infection and Immunity</i> , 2001, 69, 420-425. | 2.2 | 37 |
| 81 | Fluorescent neoglycolipids. <i>FEBS Journal</i> , 2000, 267, 1795-1804. | 0.2 | 40 |
| 82 | Adhesion of Plasmodium falciparum-infected erythrocytes to hyaluronic acid in placental malaria. <i>Nature Medicine</i> , 2000, 6, 86-90. | 30.7 | 275 |
| 83 | The Cysteine-Rich Domain of the Macrophage Mannose Receptor Is a Multispecific Lectin That Recognizes Chondroitin Sulfates a and B and Sulfated Oligosaccharides of Blood Group Lewis ^a and Lewis ^x Types in Addition to the Sulfated N-Glycans of Lutropin. <i>Journal of Experimental Medicine</i> , 2000, 191, 1117-1126. | 8.5 | 163 |
| 84 | Influence of oligosaccharide presentation on the interactions of carbohydrate sequence-specific antibodies and the selectins. <i>Journal of Immunological Methods</i> , 1999, 227, 109-119. | 1.4 | 36 |
| 85 | High prevalence of 2-mono- and 2,6-di-substituted Manol-terminating sequences among O-glycans released from brain glycopeptides by reductive alkaline hydrolysis. <i>FEBS Journal</i> , 1999, 263, 879-888. | 0.2 | 119 |
| 86 | Structural characterisation of two hexasaccharides and an octasaccharide from chondroitin sulphate C containing the unusual sequence (4-sulpho)-N-acetylgalactosamine-beta1-4-(2-sulpho)-glucuronic acid-beta1-3-(6-sulpho)-N-acetylgalactosamine. <i>FEBS Journal</i> , 1998, 251, 114-121. | 0.2 | 20 |
| 87 | Characterization of Heparin Oligosaccharide Mixtures as Ammonium Salts Using Electrospray Mass Spectrometry. <i>Analytical Chemistry</i> , 1998, 70, 2060-2066. | 6.5 | 103 |
| 88 | Brain Contains HNK-1 Immunoreactive O-Glycans of the Sulfoglucuronyl Lactosamine Series that Terminate in 2-Linked or 2,6-Linked Hexose (Mannose). <i>Journal of Biological Chemistry</i> , 1997, 272, 8924-8931. | 3.4 | 118 |
| 89 | Two Families of Murine Carbohydrate Ligands for E-Selectin. <i>Biochemical and Biophysical Research Communications</i> , 1996, 218, 610-615. | 2.1 | 22 |
| 90 | Generation and Structural Characterization of a Range of Unmodified Chondroitin Sulfate Oligosaccharide Fragments. <i>Analytical Biochemistry</i> , 1996, 237, 88-102. | 2.4 | 41 |

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|----|--|------|-----------|
| 91 | Characterisation by LSI-MS and ¹ H NMR spectroscopy of tetra-, hexa-, and octa-saccharides of porcine intestinal heparin. <i>Carbohydrate Research</i> , 1995, 269, 139-156. | 2.3 | 40 |
| 92 | Oligosaccharide ligands for NKR-P1 protein activate NK cells and cytotoxicity. <i>Nature</i> , 1994, 372, 150-157. | 27.8 | 282 |
| 93 | Specificity of mild periodate oxidation of oligosaccharidealditols: relevance to the analysis of the core-branching pattern of O-linked glycoprotein oligosaccharides. <i>Carbohydrate Research</i> , 1993, 239, 107-115. | 2.3 | 23 |
| 94 | Novel sulfated ligands for the cell adhesion molecule E-selectin revealed by the neoglycolipid technology among O-linked oligosaccharides on an ovarian cystadenoma glycoprotein. <i>Biochemistry</i> , 1992, 31, 9126-9131. | 2.5 | 261 |
| 95 | Characterisation by mass spectrometry and ¹ H-NMR of novel hexasaccharides among the acidic O-linked carbohydrate chains of bovine submaxillary mucin. <i>FEBS Journal</i> , 1992, 207, 973-980. | 0.2 | 27 |
| 96 | Neutral oligosaccharides of bovine submaxillary mucin. A combined mass spectrometry and ¹ H-NMR study. <i>FEBS Journal</i> , 1992, 203, 257-268. | 0.2 | 72 |
| 97 | Microscale sequencing of O-linked oligosaccharides using mild periodate oxidation of alditols, coupling to phospholipid and TLC-MS analysis of the resulting neoglycolipids. <i>FEBS Journal</i> , 1990, 189, 499-507. | 0.2 | 60 |
| 98 | Direct observation of a diiodo derivative and phosphonium intermediates in iodolactonization by fast-atom-bombardment mass spectrometry. <i>Journal of Organic Chemistry</i> , 1987, 52, 1617-1619. | 3.2 | 6 |