# Malcolm A O'neill

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 74 | 9,859 | 66343<br>42 | 79698<br>73 |
| papers | citations | h-index | g-index |
| 76 | 76 | 76 | 8100 |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A DE1 BINDING FACTOR 1â€“GLABRA2 module regulates rhamnogalacturonan I biosynthesis in Arabidopsis seed coat mucilage. Plant Cell, 2022, 34, 1396-1414. | 6.6 | 14 |
| 2 | Cross species multiâ€omics reveals cell wall sequestration and elevated global transcript abundance as mechanisms of boron tolerance in plants. New Phytologist, 2021, 230, 1985-2000. | 7.3 | 25 |
| 3 | Protocols for isolating and characterizing polysaccharides from plant cell walls: a case study using rhamnogalacturonan-II. Biotechnology for Biofuels, 2021, 14, 142. | 6.2 | 14 |
| 4 | ERF4 and MYB52 transcription factors play antagonistic roles in regulating homogalacturonan de-methylesterification in Arabidopsis seed coat mucilage. Plant Cell, 2021, 33, 381-403. | 6.6 | 32 |
| 5 | Locating Methyl-Etherified and Methyl-Esterified Uronic Acids in the Plant Cell Wall Pectic Polysaccharide Rhamnogalacturonan II. SLAS Technology, 2020, 25, 329-344. | 1.9 | 19 |
| 6 | Identification of two functional xyloglucan galactosyltransferase homologs <i>BrMUR3</i> and <i>BoMUR3</i> in brassicaceous vegetables. PeerJ, 2020, 8, e9095. | 2.0 | 3 |
| 7 | Changes in the abundance of cell wall apiogalacturonan and xylogalacturonan and conservation of rhamnogalacturonan II structure during the diversification of the Lemnoideae. Planta, 2018, 247, 953-971. | 3.2 | 36 |
| 8 | Genome-Wide Analysis of Sorghum GT47 Family Reveals Functional Divergences of MUR3-Like Genes. Frontiers in Plant Science, 2018, 9, 1773. | 3.6 | 25 |
| 9 | Suppression of Arabidopsis <scp>GGLT</scp>1 affects growth by reducing the Lâ€galactose content and borate crossâ€linking of rhamnogalacturonanâ€<scp>II</scp>. Plant Journal, 2018, 96, 1036-1050. | 5.7 | 33 |
| 10 | DGE-seq analysis of MUR3-related Arabidopsis mutants provides insight into how dysfunctional xyloglucan affects cell elongation. Plant Science, 2017, 258, 156-169. | 3.6 | 22 |
| 11 | Boron-bridged RG-II and calcium are required to maintain the pectin network of the Arabidopsis seed mucilage ultrastructure. Plant Molecular Biology, 2017, 94, 267-280. | 3.9 | 21 |
| 12 | Insights into cell wall structure of Sida hermaphrodita and its influence on recalcitrance. Carbohydrate Polymers, 2017, 168, 94-102. | 10.2 | 21 |
| 13 | Complex pectin metabolism by gut bacteria reveals novel catalytic functions. Nature, 2017, 544, 65-70. | 27.8 | 447 |
| 14 | Structural diversity of xylans in the cell walls of monocots. Planta, 2016, 244, 589-606. | 3.2 | 83 |
| 15 | Functional Characterization of UDP-apiose Synthases from Bryophytes and Green Algae Provides Insight into the Appearance of Apiose-containing Glycans during Plant Evolution. Journal of Biological Chemistry, 2016, 291, 21434-21447. | 3.4 | 16 |
| 16 | Galactose-Depleted Xyloglucan Is Dysfunctional and Leads to Dwarfism in Arabidopsis. Plant Physiology, 2015, 167, 1296-1306. | 4.8 | 90 |
| 17 | Xyloglucan, galactomannan, glucuronoxylan, and rhamnogalacturonan I do not have identical structures in soybean root and root hair cell walls. Planta, 2015, 242, 1123-1138. | 3.2 | 16 |
| 18 | Generation and structural validation of a library of diverse xyloglucan-derived oligosaccharides, including an update on xyloglucan nomenclature. Carbohydrate Research, 2015, 402, 56-66. | 2.3 | 110 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Transport of Boron by the<i>tassel-less1</i>Aquaporin Is Critical for Vegetative and Reproductive Development in Maize Â Â. Plant Cell, 2014, 26, 2978-2995. | 6.6 | 113 |
| 20 | A Galacturonic Acidâ€“Containing Xyloglucan Is Involved in <i>Arabidopsis</i> Root Hair Tip Growth. Plant Cell, 2012, 24, 4511-4524. | 6.6 | 106 |
| 21 | The Synthesis and Origin of the Pectic Polysaccharide Rhamnogalacturonan II â€“ Insights from Nucleotide Sugar Formation and Diversity. Frontiers in Plant Science, 2012, 3, 92. | 3.6 | 47 |
| 22 | The ability of land plants to synthesize glucuronoxylans predates the evolution of tracheophytes. Glycobiology, 2012, 22, 439-451. | 2.5 | 63 |
| 23 | Comparison of Arabinoxylan Structure in Bioenergy and Model Grasses. Industrial Biotechnology, 2012, 8, 222-229. | 0.8 | 34 |
| 24 | 4- <i>O</i> -methylation of glucuronic acid in <i>Arabidopsis</i> glucuronoxylan is catalyzed by a domain of unknown function family 579 protein. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14253-14258. | 7.1 | 164 |
| 25 | Structural Characterization of the Heteroxylans from Poplar and Switchgrass. , 2012, 908, 215-228. | | 13 |
| 26 | Methods for Structural Characterization of the Products of Cellulose- and Xyloglucan-Hydrolyzing Enzymes. Methods in Enzymology, 2012, 510, 121-139. | 1.0 | 43 |
| 27 | Plant Nucleotide Sugar Formation, Interconversion, and Salvage by Sugar Recycling*. Annual Review of Plant Biology, 2011, 62, 127-155. | 18.7 | 219 |
| 28 | The charophycean green algae provide insights into the early origins of plant cell walls. Plant Journal, 2011, 68, 201-211. | 5.7 | 226 |
| 29 | Cell wall metabolism in cold-stored tomato fruit. Postharvest Biology and Technology, 2010, 57, 106-113. | 6.0 | 52 |
| 30 | Improved procedures for the selective chemical fragmentation of rhamnogalacturonans. Carbohydrate Research, 2009, 344, 1852-1857. | 2.3 | 12 |
| 31 | Synthesis and Immunological Properties of a Tetrasaccharide Portion of the B Side Chain of Rhamnogalacturonan II (RGâ€•II). ChemBioChem, 2008, 9, 381-388. | 2.6 | 21 |
| 32 | Biochemical control of xylan biosynthesis â€” which end is up?. Current Opinion in Plant Biology, 2008, 11, 258-265. | 7.1 | 179 |
| 33 | Moss and liverwort xyloglucans contain galacturonic acid and are structurally distinct from the xyloglucans synthesized by hornworts and vascular plants*. Glycobiology, 2008, 18, 891-904. | 2.5 | 134 |
| 34 | A Reevaluation of the Key Factors That Influence Tomato Fruit Softening and Integrity. Plant Physiology, 2007, 144, 1012-1028. | 4.8 | 328 |
| 35 | Arabidopsis irregular xylem8 and irregular xylem9: Implications for the Complexity of Glucuronoxylan Biosynthesis. Plant Cell, 2007, 19, 549-563. | 6.6 | 396 |
| 36 | A plant mutase that interconverts UDP-arabinofuranose and UDP-arabinopyranose. Glycobiology, 2007, 17, 345-354. | 2.5 | 133 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | The irregular xylem9 Mutant is Deficient in Xylan Xylosyltransferase Activity. Plant and Cell Physiology, 2007, 48, 1624-1634. | 3.1 | 147 |
| 38 | Selective chemical depolymerization of rhamnogalacturonans. Carbohydrate Research, 2006, 341, 474-484. | 2.3 | 34 |
| 39 | Occurrence of the Primary Cell Wall Polysaccharide Rhamnogalacturonan II in Pteridophytes, Lycophytes, and Bryophytes. Implications for the Evolution of Vascular Plants. Plant Physiology, 2004, 134, 339-351. | 4.8 | 203 |
| 40 | l-Galactose replaces l-fucose in the pectic polysaccharide rhamnogalacturonanÂII synthesized by the l-fucose-deficient mur1 Arabidopsis mutant. Planta, 2004, 219, 147-157. | 3.2 | 78 |
| 41 | RHAMNOGALACTURONAN II: Structure and Function of a Borate Cross-Linked Cell Wall Pectic Polysaccharide. Annual Review of Plant Biology, 2004, 55, 109-139. | 18.7 | 774 |
| 42 | Polysaccharides from grape berry cell walls. Part II. Structural characterization of the xyloglucan polysaccharides. Carbohydrate Polymers, 2003, 53, 253-261. | 10.2 | 64 |
| 43 | Primary structure of the 2-O-methyl-Î±-l-fucose-containing side chain of the pectic polysaccharide, rhamnogalacturonan II. Carbohydrate Research, 2003, 338, 341-352. | 2.3 | 66 |
| 44 | Analysis of Xyloglucan Fucosylation in Arabidopsis. Plant Physiology, 2003, 132, 768-778. | 4.8 | 82 |
| 45 | Pectins: structure, biosynthesis, and oligogalacturonide-related signaling. Phytochemistry, 2001, 57, 929-967. | 2.9 | 1,596 |
| 46 | Requirement of Borate Cross-Linking of Cell Wall Rhamnogalacturonan II for Arabidopsis Growth. Science, 2001, 294, 846-849. | 12.6 | 599 |
| 47 | Structural characterization of the pectic polysaccharide rhamnogalacturonan II: evidence for the backbone location of the aceric acid-containing oligoglycosyl side chain. Carbohydrate Research, 2000, 326, 277-294. | 2.3 | 105 |
| 48 | The Pore Size of Non-Graminaceous Plant Cell Walls Is Rapidly Decreased by Borate Ester Cross-Linking of the Pectic Polysaccharide Rhamnogalacturonan II. Plant Physiology, 1999, 121, 829-838. | 4.8 | 456 |
| 49 | The Plant Cell Wall Polysaccharide Rhamnogalacturonan II Self-assembles into a Covalently Cross-linked Dimer. Journal of Biological Chemistry, 1999, 274, 13098-13104. | 3.4 | 175 |
| 50 | The transient nature of the oligogalaturonide-induced ion fluxes of tobacco cells is not correlated with fragmentation of the oligogalacturonides. Plant Journal, 1998, 16, 305-311. | 5.7 | 25 |
| 51 | Biological Activity of Reducing-End-Derivatized Oligogalacturonides in Tobacco Tissue Cultures1. Plant Physiology, 1998, 116, 1289-1298. | 4.8 | 43 |
| 52 | Rhamnogalacturonan-II, a pectic polysaccharide in the walls of growing plant cell, forms a dimer that is covalently cross-linked by a borate ester. In vitro conditions for the formation and hydrolysis of the dimer.. Journal of Biological Chemistry, 1997, 272, 3869. | 3.4 | 4 |
| 53 | Rhamnogalacturonan-II, a Pectic Polysaccharide in the Walls of Growing Plant Cell, Forms a Dimer That Is Covalently Cross-linked by a Borate Ester. Journal of Biological Chemistry, 1996, 271, 22923-22930. | 3.4 | 472 |
| 54 | Structural characterization of red wine rhamnogalacturonan II. Carbohydrate Research, 1996, 290, 183-197. | 2.3 | 203 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Structural characterization of the pectic polysaccharide, rhamnogalacturonan-II. Carbohydrate Research, 1995, 271, 15-29. | 2.3 | 100 |
| 56 | The backbone of the pectic polysaccharide rhamnogalacturonan I is cleaved by an endohydrolase and an endolyase. Glycobiology, 1995, 5, 783-789. | 2.5 | 56 |
| 57 | Isolation and structural characterization of endo-rhamnogalacturonase-generated fragments of the backbone of rhamnogalacturonan I. Carbohydrate Research, 1994, 264, 83-96. | 2.3 | 43 |
| 58 | Purification and characterization of biologically active 1,4-linked Î±-d-oligogalacturonides after partial digestion of polygalacturonic acid with endopolygalacturonase. Carbohydrate Research, 1993, 247, 9-20. | 2.3 | 75 |
| 59 | Structural characterization of endo-glycanase-generated oligoglycosyl side chains of rhamnogalacturonan I. Carbohydrate Research, 1993, 243, 359-371. | 2.3 | 93 |
| 60 | Oligosaccharinsâ€"oligosaccharides that regulate growth, development and defence responses in plants. Glycobiology, 1992, 2, 181-198. | 2.5 | 301 |
| 61 | Oligosaccharins: oligosaccharide regulatory molecules. Accounts of Chemical Research, 1992, 25, 77-83. | 15.6 | 79 |
| 62 | Evidence that the acidic polysaccharide secreted by Agrobacterium radiobacter (ATCC 53271) has a seventeen glycosyl-residue repeating unit. Carbohydrate Research, 1992, 226, 131-154. | 2.3 | 5 |
| 63 | A comparison of the polysaccharides extracted from dried and non-dried walls of suspension-cultured sycamore cells. Phytochemistry, 1991, 30, 3903-3908. | 2.9 | 9 |
| 64 | Structural analysis of an acidic polysaccharide secreted by Xanthobacter sp. (ATCC 53272). Carbohydrate Research, 1990, 206, 289-296. | 2.3 | 26 |
| 65 | Static and dynamic light-scattering studies of pectic polysaccharides from the middle lamellae and primary cell walls of cider apples. Carbohydrate Research, 1987, 165, 53-68. | 2.3 | 49 |
| 66 | Structure of the extracellular gelling polysaccharide produced by Enterobacter (NCIB 11870) species. Carbohydrate Research, 1986, 148, 63-69. | 2.3 | 41 |
| 67 | Structure of the extracellular polysaccharide produced by the bacterium Alcaligenes (ATCC 31555) species. Carbohydrate Research, 1986, 147, 295-313. | 2.3 | 50 |
| 68 | Structural features of the mucilage from the stem pith of kiwifruit (actinidia deliciosa): part I, structure of the inner core. Carbohydrate Research, 1986, 153, 97-106. | 2.3 | 18 |
| 69 | | | |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Methylation analysis of cell wall glycoproteins and glycopeptides from Chlamydomonas reinhardii. Phytochemistry, 1981, 20, 25-28. | 2.9 | 33 |
| 74 | Methylation analysis of cell-wall material from parenchymatous tissues of phaseolus vulgaris and phaseolus coccineus. Carbohydrate Research, 1980, 79, 115-124. | 2.3 | 40 |