Janusz J Zwiazek

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|--|-------------------|-----------------------|
| 1 | Ectomycorrhizas and water relations of trees: a review. Mycorrhiza, 2011, 21, 71-90. | 1.3 | 318 |
| 2 | Regulation of aquaporins in plants under stress. Biological Research, 2018, 51, 4. | 1.5 | 252 |
| 3 | Aquaporins in poplar: What a difference a symbiont makes!. Planta, 2005, 222, 258-268. | 1.6 | 141 |
| 4 | Mercuric Chloride Effects on Root Water Transport in Aspen Seedlings. Plant Physiology, 1999, 121, 939-946. | 2.3 | 138 |
| 5 | Functional characterization of drought-responsive aquaporins in Populus balsamifera and Populus simoniiA—balsamifera clones with different drought resistance strategies. Physiologia Plantarum, 2010, 140, 321-333. | 2.6 | 89 |
| 6 | Overexpression of PIP2;5 Aquaporin Alleviates Effects of Low Root Temperature on Cell Hydraulic Conductivity and Growth in Arabidopsis Â. Plant Physiology, 2012, 159, 479-488. | 2.3 | 85 |
| 7 | Ethylene Enhances Water Transport in Hypoxic Aspen. Plant Physiology, 2002, 128, 962-969. | 2.3 | 79 |
| 8 | Title is missing!. Plant and Soil, 2002, 238, 217-225. | 1.8 | 76 |
| 9 | Significance of oxygen transport through aquaporins. Scientific Reports, 2017, 7, 40411. | 1.6 | 76 |
| 10 | Effects of water deficit stress and recovery on the root water relations of trembling aspen (Populus) Tj ETQq0 0 | 0 rgBT /Ov 1.7 | verlock 10 Tf 5 73 |
| 11 | Light response of hydraulic conductance in bur oak (Quercus macrocarpa) leaves. Tree Physiology, 2008, 28, 1007-1015. | 1.4 | 71 |
| 12 | Effects of NaCl and Na2SO4 on red-osier dogwood (Cornus stolonifera Michx) seedlings. Plant and Soil, 2001, 233, 261-268. | 1.8 | 70 |
| 13 | Role of adventitious roots in water relations of tamarack (Larix laricina) seedlings exposed to flooding. BMC Plant Biology, 2012, 12, 99. | 1.6 | 63 |
| 14 | Signals controlling root suckering and adventitious shoot formation in aspen (Populus) Tj ETQq0 0 0 rgBT /Over | lock 10 Tf | 50,222 Td (tr |

| 15 | Early detection of membrane injury in black spruce (<i>Piceamariana</i>). Canadian Journal of Forest Research, 1991, 21, 401-404. | 0.8 | 58 | |
|----|--|-----|----|--|
|----|--|-----|----|--|

Naphthenic acids inhibit root water transport, gas exchange and leaf growth in aspen (Populus) Tj ETQq0 0 0 rgBT $\frac{10}{1.4}$ Overlock 10 Tf 50 14 16

| 17 | Overexpression of <i>Laccaria bicolor</i> aquaporin <i>JQ585595</i> alters root water transport properties in ectomycorrhizal white spruce (<i>Picea glauca</i>) seedlings. New Phytologist, 2015, 205, 757-770. | 3.5 | 54 |
|----|--|-----|----|
| 18 | Aquaporin gene expression and apoplastic water flow in bur oak (Quercus macrocarpa) leaves in relation to the light response of leaf hydraulic conductance. Journal of Experimental Botany, 2009, 60, 4063-4075. | 2.4 | 53 |

| # | Article | IF | CITATIONS |
|----|---|-------------------|----------------------|
| 19 | Responses of black spruce (Picea mariana) and tamarack (Larix laricina) to flooding and ethylene. Tree Physiology, 2003, 23, 545-552. | 1.4 | 52 |
| 20 | Effects of preconditioning on subsequent water relations, stomatal sensitivity, and photosynthesis in osmotically stressed black spruce. Canadian Journal of Botany, 1989, 67, 2240-2244. | 1.2 | 49 |
| 21 | Metabolic inhibition of root water flow in redâ€osier dogwood (Cornus stolonifera) seedlings. Journal of Experimental Botany, 2001, 52, 739-745. | 2.4 | 49 |
| 22 | Effects of root medium pH on water transport in paper birch (Betula papyrifera) seedlings in relation to root temperature and abscisic acid treatments. Tree Physiology, 2004, 24, 1173-1180. | 1.4 | 49 |
| 23 | Ion uptake in Pinus banksiana treated with sodium chloride and sodium sulphate. Physiologia Plantarum, 2004, 120, 482-490. | 2.6 | 48 |
| 24 | Responses of ectomycorrhizal American elm (Ulmus americana) seedlings to salinity and soil compaction. Plant and Soil, 2008, 308, 189-200. | 1.8 | 48 |
| 25 | Plant water transport and aquaporins in oxygen-deprived environments. Journal of Plant Physiology, 2018, 227, 20-30. | 1.6 | 48 |
| 26 | Changes in root water flow properties of solution culture-grown trembling aspen (Populus) Tj ETQq0 0 0 rgBT / 2004, 121, 44-49. | Overlock 1 2.6 | 0 Tf 50 467 To 47 |
| 27 | Role of aquaporins in root water transport of ectomycorrhizal jack pine (<i>Pinus banksiana</i>) seedlings exposed to NaCl and fluoride. Plant, Cell and Environment, 2010, 33, 769-780. | 2.8 | 46 |
| 28 | Stomatal factors and vulnerability of stem xylem to cavitation in poplars. Physiologia Plantarum, 2011, 143, 154-165. | 2.6 | 46 |
| 29 | Fluoride inhibits root water transport and affects leaf expansion and gas exchange in aspen (Populus) Tj ETQq1 | 1 0,78431 | .4 rgBT /Overl |
| 30 | Root water flow and leaf stomatal conductance in aspen (Populus tremuloides) seedlings treated with abscisic acid. Planta, 2001, 213, 741-747. | 1.6 | 41 |
| 31 | Effects of repeated stress on turgor pressure and cell elasticity changes in black spruce seedlings. Canadian Journal of Forest Research, 1991, 21, 1329-1333. | 0.8 | 40 |
| 32 | Responses of ectomycorrhizal Populus tremuloides and Betula papyrifera seedlings to salinity. Environmental and Experimental Botany, 2008, 62, 357-363. | 2.0 | 38 |
| 33 | Effects of irradiance on cell water relations in leaf bundle sheath cells of wild-type and transgenic tobacco (Nicotiana tabacum) plants overexpressing aquaporins. Plant Science, 2009, 176, 248-255. | 1.7 | 35 |
| 34 | The effect of ectomycorrhizae on water relations in aspen (Populus tremuloides) and white spruce (Picea glauca) at low soil temperatures. Canadian Journal of Botany, 2002, 80, 684-689. | 1.2 | 33 |
| 35 | Growth and physiological responses of trembling aspen (Populus tremuloides), white spruce (Picea) Tj ETQq1 1 | 0.784314 1.8 | rgBT /Overloc |
| 36 | Growth of mycorrhizal jack pine (Pinus banksiana) and white spruce (Picea glauca) seedlings planted in oil sands reclaimed areas. Mycorrhiza, 2014, 24, 431-441. | 1.3 | 32 |

| # | Article | IF | CITATIONS |
|----|--|--------------------------|---------------|
| 37 | <scp><i>L</i></scp> <i>accaria bicolor</i> aquaporin <scp>LbAQP1</scp> is required for <scp>H</scp> artig net development in trembling aspen (<scp><i>P</i></scp> <i>opulus) Tj ETQq1 1 0.78431</i> | l 4 rg Bī. \$Ovei | rlocto10 Tf 5 |
| 38 | NaCl and Na2SO4 alter responses of jack pine (Pinus banksiana) seedlings to boron. Plant and Soil, 2002, 240, 321-329. | 1.8 | 29 |
| 39 | Stomatal conductance and xylem sap properties of aspen (Populus tremuloides) in response to low soil temperature. Physiologia Plantarum, 2004, 122, 79-85. | 2.6 | 28 |
| 40 | Boron and water uptake in jack pine (Pinus banksiana) seedlings. Environmental and Experimental Botany, 2004, 51, 145-153. | 2.0 | 28 |
| 41 | Phylogenetic analysis of fungal aquaporins provides insight into their possible role in water transport of mycorrhizal associations. Botany, 2013, 91, 495-504. | 0.5 | 28 |
| 42 | Naphthenic acids affect plant water conductance but do not alter shoot Na+and Cl-concentrations in jack pine (Pinus banksiana) seedlings. Plant and Soil, 2004, 263, 183-190. | 1.8 | 27 |
| 43 | Root hydraulic properties and growth of balsam poplar (Populus balsamifera) mycorrhizal with Hebeloma crustuliniforme and Wilcoxina mikolae var. mikolae. Mycorrhiza, 2008, 18, 393-401. | 1.3 | 27 |
| 44 | Hydraulic adjustments in aspen (Populus tremuloides) seedlings following defoliation involve root and leaf aquaporins. Planta, 2014, 240, 553-564. | 1.6 | 26 |
| 45 | Regulation of Aquaporin-Mediated Water Transport in Arabidopsis Roots Exposed to NaCl. Plant and Cell Physiology, 2015, 56, 750-758. | 1.5 | 26 |
| 46 | Lightâ€induced transpiration alters cell water relations in figleaf gourd (<i>Cucurbita ficifolia</i>) seedlings exposed to low root temperatures. Physiologia Plantarum, 2008, 133, 354-362. | 2.6 | 25 |
| 47 | Effects of prolonged cold storage on carbohydrate and protein content and field performance of white spruce bareroot seedlings. Canadian Journal of Forest Research, 1994, 24, 1369-1375. | 0.8 | 24 |
| 48 | Osmotically-stressed poplar cell cultures: anthocyanin accumulation, deaminase activity, and solute composition. Journal of Plant Physiology, 1997, 151, 489-496. | 1.6 | 24 |
| 49 | Responses of jack pine (Pinus banksiana) seedlings to root zone pH and calcium. Environmental and Experimental Botany, 2015, 111, 32-41. | 2.0 | 23 |
| 50 | Role of urban ectomycorrhizal fungi in improving the tolerance of lodgepole pine (Pinus contorta) seedlings to salt stress. Mycorrhiza, 2019, 29, 303-312. | 1.3 | 23 |
| 51 | Stable expression of aquaporins and hypoxia-responsive genes in adventitious roots are linked to maintaining hydraulic conductance in tobacco (Nicotiana tabacum) exposed to root hypoxia. PLoS ONE, 2019, 14, e0212059. | 1.1 | 23 |
| 52 | Preservation of Thermal Stability of Cell Membranes and Gas Exchange in High Temperature Acclimated Xylia xylocarpa Seedlings. Journal of Plant Physiology, 2000, 156, 380-385. | 1.6 | 22 |
| 53 | Hypoxia affects root sodium and chloride concentrations and alters water conductance in salt-treated jack pine (Pinus banksiana) seedlings. Trees - Structure and Function, 2003, 17, 251-257. | 0.9 | 20 |
| 54 | Responses of hybrid aspen over-expressing a PIP2;5 aquaporin to low root temperature. Journal of Plant Physiology, 2016, 192, 98-104. | 1.6 | 20 |

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|----|--|---------------------|----------------------------------|
| 55 | Effects of Early Spring Photosynthesis on Carbohydrate Content, Bud Flushing and Root and Shoot Growth of Picea glauca Bareroot Seedlings. Scandinavian Journal of Forest Research, 1999, 14, 295-302. | 0.5 | 19 |
| 56 | Waterlogging under simulated late-winter conditions had little impact on the physiology and growth of Norway spruce seedlings. Annals of Forest Science, 2013, 70, 781-790. | 0.8 | 19 |
| 57 | Effects of triadimefon and osmotic stress on plasma membrane composition and ATPase activity in white spruce (Picea glauca) needles. Physiologia Plantarum, 1993, 87, 475-482. | 2.6 | 18 |
| 58 | Responses of mycorrhizal jack pine (Pinus banksiana) seedlings to NaCl and boron. Trees - Structure and Function, 2008, 22, 825-834. | 0.9 | 18 |
| 59 | Effects of pH on NaCl tolerance of American elm (Ulmus americana) seedlings inoculated with Hebeloma crustuliniforme and Laccaria bicolor. Acta Physiologiae Plantarum, 2009, 31, 515-522. | 1.0 | 18 |
| 60 | Effects of NaCl on responses of ectomycorrhizal black spruce (<i>Picea mariana</i>), white spruce (<i>Picea glauca</i>) and jack pine (<i>Pinus banksiana</i>) to fluoride. Physiologia Plantarum, 2009, 135, 51-61. | 2.6 | 18 |
| 61 | Spring changes in water relations, gas exchange, and carbohydrates of white spruce (<i>Picea) Tj ETQq1 1 0.78</i> | 4314 rgBT 0.8 | /Overlock 10 |
| 62 | Water transport properties of root cells contribute to salt tolerance in halophytic grasses Poa juncifolia and Puccinellia nuttalliana. Plant Science, 2018, 276, 54-62. | 1.7 | 17 |
| 63 | Hydraulic conductivity and aquaporin transcription in roots of trembling aspen (Populus) Tj ETQq1 1 0.784314 | rgB <u>T /</u> Over | \log_{16}^{10} Tf 5 $^{\circ}$ |
| 64 | Fungal Aquaporins in Ectomycorrhizal Root Water Transport. Frontiers in Plant Science, 2020, 11, 302. | 1.7 | 16 |
| 65 | Leaf physiological impedance and elasticity modulus in Orychophragmus violaceus seedlings subjected to repeated osmotic stress. Scientia Horticulturae, 2021, 276, 109763. | 1.7 | 16 |
| 66 | Growth and elemental composition of jack pine (Pinus banksiana) seedlings treated with sodium chloride and sodium sulfate. Trees - Structure and Function, 2002, 16, 325-330. | 0.9 | 15 |
| 67 | Boreal forest plant species responses to pH: ecological interpretation and application to reclamation. Plant and Soil, 2017, 420, 195-208. | 1.8 | 15 |
| 68 | Over-expression of PIP2;5 aquaporin alleviates gas exchange and growth inhibition in poplars exposed to mild osmotic stress with polyethylene glycol. Acta Physiologiae Plantarum, 2017, 39, 1. | 1.0 | 15 |
| 69 | Hebeloma crustuliniforme modifies root hydraulic responses of trembling aspen (Populus) Tj ETQq1 1 0.784314 | rgBT/Ove | erlock 10 Tf 50 |
| 70 | Responses of Reclamation Plants to High Root Zone pH: Effects of Phosphorus and Calcium Availability. Journal of Environmental Quality, 2016, 45, 1652-1662. | 1.0 | 14 |
| 71 | The contribution of PIP2-type aquaporins to photosynthetic response to increased vapour pressure deficit. Journal of Experimental Botany, 2021, 72, 5066-5078. | 2.4 | 14 |
| 72 | Properties of root water transport in canola (Brassica napus) subjected to waterlogging at the seedling, flowering and podding growth stages. Plant and Soil, 2020, 454, 431-445. | 1.8 | 13 |

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|----|---|-------------------|---------------|
| 73 | Ericoid mycorrhizal fungi enhance salt tolerance in ericaceous plants. Mycorrhiza, 2020, 30, 419-429. | 1.3 | 13 |
| 74 | Jack Pine Growth and Elemental Composition Are Affected by Saline Tailings Water. Journal of Environmental Quality, 2002, 31, 648-653. | 1.0 | 12 |
| 75 | Inoculation with Ericoid Mycorrhizal Associations Alleviates Drought Stress in Lowland and Upland Velvetleaf Blueberry (Vaccinium myrtilloides) Seedlings. Plants, 2021, 10, 2786. | 1.6 | 12 |
| 76 | Jack Pine Growth and Elemental Composition Are Affected by Saline Tailings Water. Journal of Environmental Quality, 2002, 31, 648. | 1.0 | 11 |
| 77 | Effects of preconditioning on electrolyte leakage and lipid composition in black spruce (Picea) Tj ETQq1 1 0.7843 | 14 rgBT /(2.6 | Overlock 10 |
| 78 | Transcriptome and Metabolome Analyses Reveal Potential Salt Tolerance Mechanisms Contributing to Maintenance of Water Balance by the Halophytic Grass Puccinellia nuttalliana. Frontiers in Plant Science, 2021, 12, 760863. | 1.7 | 11 |
| 79 | Hydrogen fluoride effects on plasma membrane composition, ATPase activity and cell structure in needles of eastern white pine (Pinus strobus) seedlings. Trees - Structure and Function, 1995, 9, 190. | 0.9 | 10 |
| 80 | Responses of Rat Root (Acorus americanusRaf.) Plants to Salinity and pH Conditions. Journal of Environmental Quality, 2014, 43, 578-586. | 1.0 | 10 |
| 81 | Adventitious sprouting of Pinus leiophylla in response to salt stress. Annals of Forest Science, 2014, 71, 811-819. | 0.8 | 10 |
| 82 | Regulation of water transport in Arabidopsis by methyl jasmonate. Plant Physiology and Biochemistry, 2019, 139, 540-547. | 2.8 | 10 |
| 83 | Transcript profiling of aquaporins during basidiocarp development in Laccaria bicolor ectomycorrhizal with Picea glauca. Mycorrhiza, 2016, 26, 19-31. | 1.3 | 9 |
| 84 | Effects of pH and Mineral Nutrition on Growth and Physiological Responses of Trembling Aspen (Populus tremuloides), Jack Pine (Pinus banksiana), and White Spruce (Picea glauca) Seedlings in Sand Culture. Plants, 2020, 9, 682. | 1.6 | 9 |
| 85 | Growth and physiological responses of tree seedlings to oil sands non-segregated tailings. Environmental Pollution, 2020, 259, 113945. | 3.7 | 8 |
| 86 | Cell wall changes in white spruce (Picea glauca) needles subjected to repeated drought stress. Physiologia Plantarum, 1991, 82, 513-518. | 2.6 | 8 |
| 87 | Hebeloma crustuliniforme facilitates ammonium and nitrate assimilation in trembling aspen (Populus) Tj ETQq1 1 | 0,784314 1.4 | 4 rgBT /Overl |
| 88 | Effects of Branch Pruning and Seedling Size on Total Transpiration and Tissue Na and Cl Accumulation in Pinus leiophylla Seedlings Exposed to Salinity. Forest Science, 2013, 59, 407-415. | 0.5 | 6 |
| 89 | Ethylene enhances root water transport and aquaporin expression in trembling aspen (Populus) Tj ETQq1 1 0.784 | 1314 rgBT 1.6 | /Overlock 10 |
| 90 | Effects of forest floor planting and stock type on growth and root emergence of Pinus contorta seedlings in a cold northern cutblock. New Forests, 2006, 32, 145-162. | 0.7 | 5 |

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|----|--|-----|-----------|
| 91 | Role of osmotic stress in ion accumulation and physiological responses of mycorrhizal white spruce (Picea glauca) and jack pine (Pinus banksiana) to soil fluoride and NaCl. Acta Physiologiae Plantarum, 2011, 33, 1365-1373. | 1.0 | 5 |

 $_{92}$ Effects of storage temperature on physiological characteristics of fall-lifted white spruce (<i>Picea) Tj ETQq0 0 0 rg $_{0.8}^{\text{T}}$ /Overlock 10 Tf 50

| 93 | Oxidative stress impedes recovery of canola (Brassica napus) plants from waterlogging by inhibiting aquaporin-mediated root water transport. Environmental and Experimental Botany, 2022, 200, 104931. | 2.0 | 5 |
|-----|--|-------------------|-----------------|
| 94 | Variation in Aquaporin and Physiological Responses Among Pinus contorta Families Under Different Moisture Conditions. Plants, 2019, 8, 13. | 1.6 | 4 |
| 95 | Tissue sodium and chloride concentrations in relation to needle injury in boreal conifer seedlings subjected to salt stress. Trees - Structure and Function, 2020, 34, 521-529. | 0.9 | 4 |
| 96 | Winter Climate Variability, De-Icing Salt and Streetside Tree Vitality. Frontiers in Ecology and Evolution, 2022, 10, . | 1.1 | 4 |
| 97 | Effects of Elemental Sulfur on Soil pH and Growth of Saskatoon Berry (Amelanchier alnifolia) and Beaked Hazelnut (Corylus cornuta) Seedlings. Soil Systems, 2022, 6, 31. | 1.0 | 4 |
| 98 | Salinity Tolerance of Halophytic Grass Puccinellia nuttalliana Is Associated with Enhancement of Aquaporin-Mediated Water Transport by Sodium. International Journal of Molecular Sciences, 2022, 23, 5732. | 1.8 | 4 |
| 99 | Effects of iron and root zone pH on growth and physiological responses of paper birch (Betula) Tj ETQq1 1 0.784 seedlings in a split-root hydroponic system. Acta Physiologiae Plantarum, 2019, 41, 1. | 314 rgBT / 1.0 | Overlock 1 3 |
| 100 | Impact of soil stockpiling on ericoid mycorrhizal colonization and growth of velvetleaf blueberry (<scp><i>Vaccinium myrtilloides</i></scp>) and Labrador tea (<scp><i>Ledum) Tj ETQq0 0 0 rgBT /Overlock 10 T</i></scp> | f f.0 377 | T&(groenla |
| 101 | Cell wall composition and elasticity of dormant and growing white spruce (Picea glauca) seedlings. Physiologia Plantarum, 1997, 101, 323-327. | 2.6 | 2 |

102Jack pine growth and elemental composition are affected by saline tailings water. Journal of
Environmental Quality, 2002, 31, 648-53.1.02