

Saoirse R Tracy

List of Publications by Year in descending order

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papers

1,991
citations

361413

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docs citations

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times ranked

2478
citing authors

#	ARTICLE	IF	CITATIONS
1	RooTrak: Automated Recovery of Three-Dimensional Plant Root Architecture in Soil from X-Ray Microcomputed Tomography Images Using Visual Tracking. <i>Plant Physiology</i> , 2012, 158, 561-569.	4.8	215
2	Root hydrotropism is controlled via a cortex-specific growth mechanism. <i>Nature Plants</i> , 2017, 3, 17057.	9.3	183
3	The X-factor: visualizing undisturbed root architecture in soils using X-ray computed tomography. <i>Journal of Experimental Botany</i> , 2010, 61, 311-313.	4.8	172
4	Applications of X-ray computed tomography for examining biophysical interactions and structural development in soil systems: a review. <i>European Journal of Soil Science</i> , 2013, 64, 279-297.	3.9	164
5	Quantifying the impact of soil compaction on root system architecture in tomato (<i>Solanum</i>) using X-ray computed tomography. <i>Plant Methods</i> , 2013, 9, 8.	2.9	148
6	Crop Improvement from Phenotyping Roots: Highlights Reveal Expanding Opportunities. <i>Trends in Plant Science</i> , 2020, 25, 105-118.	8.8	141
7	Recovering complete plant root system architectures from soil via X-ray Computed Tomography. <i>Plant Methods</i> , 2013, 9, 8.	4.3	127
8	Soil compaction: a review of past and present techniques for investigating effects on root growth. <i>Journal of the Science of Food and Agriculture</i> , 2011, 91, 1528-1537.	3.5	117
9	Three-dimensional quantification of soil hydraulic properties using X-ray Computed Tomography and image-based modeling. <i>Water Resources Research</i> , 2015, 51, 1006-1022.	4.2	94
10	Exploring the interacting effect of soil texture and bulk density on root system development in tomato (<i>Solanum lycopersicum</i> L.). <i>Environmental and Experimental Botany</i> , 2013, 91, 38-47.	4.2	80
11	Quantifying the effect of soil compaction on three varieties of wheat (<i>Triticum aestivum</i> L.) using X-ray Micro Computed Tomography (CT). <i>Plant and Soil</i> , 2012, 353, 195-208.	3.7	71
12	Effects of X-Ray Dose On Rhizosphere Studies Using X-Ray Computed Tomography. <i>PLoS ONE</i> , 2013, 8, e67250.	2.5	70
13	Assessing the influence of the rhizosphere on soil hydraulic properties using X-ray computed tomography and numerical modelling. <i>Journal of Experimental Botany</i> , 2015, 66, 2305-2314.	4.8	60
14	Using X-ray Computed Tomography to explore the role of abscisic acid in moderating the impact of soil compaction on root system architecture. <i>Environmental and Experimental Botany</i> , 2015, 110, 11-18.	4.2	50
15	Quantifying the effect of soil moisture content on segmenting root system architecture in X-ray computed tomography images. <i>Plant and Soil</i> , 2013, 370, 35-45.	3.7	49
16	Beyond Digging: Noninvasive Root and Rhizosphere Phenotyping. <i>Trends in Plant Science</i> , 2020, 25, 119-120.	8.8	49
17	Non-destructive determination of floral staging in cereals using X-ray micro computed tomography (µCT). <i>Plant Methods</i> , 2017, 13, 9.	4.3	43
18	Quantification of root water uptake in soil using X-ray computed tomography and image-based modelling. <i>Plant, Cell and Environment</i> , 2018, 41, 121-133.	5.7	36

#	ARTICLE	IF	CITATIONS
19	3D printing of PEEK reactors for flow chemistry and continuous chemical processing. Reaction Chemistry and Engineering, 2020, 5, 728-735.	3.7	34
20	Demystifying roots: A need for clarification and extended concepts in root phenotyping. Plant Science, 2019, 282, 11-13.	3.6	28
21	Sward composition and soil moisture conditions affect nitrous oxide emissions and soil nitrogen dynamics following urea-nitrogen application. Science of the Total Environment, 2020, 722, 137780.	8.0	16
22	Source partitioning using N ₂ O isotopomers and soil WFPS to establish dominant N ₂ O production pathways from different pasture sward compositions. Science of the Total Environment, 2021, 781, 146515.	8.0	13
23	The veterinary drug ivermectin influences immune response in the yellow dung fly (Scathophaga) Tj ETQq1 1 0.784314 rgBT /Overlock 1	7.5	7
24	A novel 3D X-ray computed tomography (CT) method for spatio-temporal evaluation of waterlogging-induced aerenchyma formation in barley. The Plant Phenome Journal, 2022, 5, .	2.0	6
25	Comparison of two image analysis software for root trait analysis of single and mixed species grasslands. The Plant Phenome Journal, 2022, 5, .	2.0	5
26	The effect of tillage depth and traffic management on soil properties and root development during two growth stages of winter wheat (<i>Triticum aestivum</i> L.). Soil, 2022, 8, 391-408.	4.9	5
27	Development and verification of a novel isotopic N ₂ O measurement technique for discrete static chamber samples using cavity ring-down spectroscopy. Rapid Communications in Mass Spectrometry, 2021, 35, e9049.	1.5	4
28	The establishment of winter wheat root system architecture in field soils: The effect of soil type on root development in a temperate climate. Soil Use and Management, 2023, 39, 198-208.	4.9	2
29	Reply to comment by X. X. Zhang et al. on "Three-dimensional quantification of soil hydraulic properties using X-ray computed tomography and image-based modeling". Water Resources Research, 2016, 52, 5691-5693.	4.2	1