

Gernot Bodner

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

51 papers	1,855 citations	23 h-index	43 g-index
52 ext. papers	2,283 ext. citations	4.1 avg, IF	5.02 L-index

#	Paper	IF	Citations
51	Management of crop water under drought: a review. <i>Agronomy for Sustainable Development</i> , 2015 , 35, 401-442	6.8	245
50	Land use change impacts on floods at the catchment scale: Challenges and opportunities for future research. <i>Water Resources Research</i> , 2017 , 53, 5209-5219	5.4	162
49	Temporal dynamics of soil hydraulic properties and the water-conducting porosity under different tillage. <i>Soil and Tillage Research</i> , 2011 , 113, 89-98	6.5	143
48	Coarse and fine root plants affect pore size distributions differently. <i>Plant and Soil</i> , 2014 , 380, 133-151	4.2	121
47	A dynamic root system growth model based on L-Systems. <i>Plant and Soil</i> , 2010 , 332, 177-192	4.2	113
46	Cover crop evapotranspiration under semi-arid conditions using FAO dual crop coefficient method with water stress compensation. <i>Agricultural Water Management</i> , 2007 , 93, 85-98	5.9	85
45	Root induced changes of effective 1D hydraulic properties in a soil column. <i>Plant and Soil</i> , 2014 , 381, 193-213	4.2	68
44	Estimation of runoff mitigation by morphologically different cover crop root systems. <i>Journal of Hydrology</i> , 2016 , 538, 667-676	6	61
43	Faba Bean Cultivation - Revealing Novel Managing Practices for More Sustainable and Competitive European Cropping Systems. <i>Frontiers in Plant Science</i> , 2018 , 9, 1115	6.2	61
42	Can diversity in root architecture explain plant water use efficiency? A modeling study. <i>Ecological Modelling</i> , 2015 , 312, 200-210	3	56
41	Environmental and management influences on temporal variability of near saturated soil hydraulic properties. <i>Geoderma</i> , 2013 , 204-205, 120-129	6.7	56
40	Impact of contrasted maize root traits at flowering on water stress tolerance [A simulation study. <i>Field Crops Research</i> , 2014 , 165, 125-137	5.5	53
39	Vertical variations of soil hydraulic properties within two soil profiles and its relevance for soil water simulations. <i>Journal of Hydrology</i> , 2014 , 516, 169-181	6	51
38	A statistical approach to root system classification. <i>Frontiers in Plant Science</i> , 2013 , 4, 292	6.2	49
37	Natural and management-induced dynamics of hydraulic conductivity along a cover-cropped field slope. <i>Geoderma</i> , 2008 , 146, 317-325	6.7	48
36	Identification of Water Use Strategies at Early Growth Stages in Durum Wheat from Shoot Phenotyping and Physiological Measurements. <i>Frontiers in Plant Science</i> , 2016 , 7, 1155	6.2	46
35	Field quantification of wetting-drying cycles to predict temporal changes of soil pore size distribution. <i>Soil and Tillage Research</i> , 2013 , 133, 1-9	6.5	44

34	Wheat root diversity and root functional characterization. <i>Plant and Soil</i> , 2014 , 380, 211-229	4.2	41
33	Hyperspectral imaging: a novel approach for plant root phenotyping. <i>Plant Methods</i> , 2018 , 14, 84	5.8	40
32	Time-variable soil hydraulic properties in near-surface soil water simulations for different tillage methods. <i>Agricultural Water Management</i> , 2011 , 99, 42-50	5.9	37
31	Soil Hydraulic Properties of Recently Tilled Soil under Cropping Rotation Compared with Two-Year Pasture. <i>Vadose Zone Journal</i> , 2011 , 10, 354-366	2.7	34
30	Improved evaluation of cover crop species by growth and root factors. <i>Agronomy for Sustainable Development</i> , 2010 , 30, 455-464	6.8	31
29	Root architecture simulation improves the inference from seedling root phenotyping towards mature root systems. <i>Journal of Experimental Botany</i> , 2017 , 68, 965-982	7	30
28	Phenotyping: Using Machine Learning for Improved Pairwise Genotype Classification Based on Root Traits. <i>Frontiers in Plant Science</i> , 2016 , 7, 1864	6.2	22
27	Modeling growth of different lucerne cultivars and their effect on soil water dynamics. <i>Agricultural Water Management</i> , 2013 , 119, 100-110	5.9	19
26	Dissection of drought response of modern and underutilized wheat varieties according to Passioura's yield-water framework. <i>Frontiers in Plant Science</i> , 2015 , 6, 570	6.2	18
25	Trait identification of faba bean ideotypes for Northern European environments. <i>European Journal of Agronomy</i> , 2018 , 96, 1-12	5	15
24	RGB and Spectral Root Imaging for Plant Phenotyping and Physiological Research: Experimental Setup and Imaging Protocols. <i>Journal of Visualized Experiments</i> , 2017 ,	1.6	14
23	Combination of Measurement Methods for a Wide-Range Description of Hydraulic Soil Properties. <i>Water (Switzerland)</i> , 2018 , 10, 1021	3	11
22	Assessing yield optimization and water reduction potential for summer-sown and spring-sown maize in Pakistan. <i>Agricultural Water Management</i> , 2010 , 97, 731-737	5.9	10
21	Deep soil exploration vs. topsoil exploitation: distinctive rooting strategies between wheat landraces and wild relatives. <i>Plant and Soil</i> , 2021 , 459, 397-421	4.2	10
20	Improving Water Use Efficiency for Sustainable Agriculture 2012 , 167-211		9
19	Long-term Soil Tillage and Cover Cropping Affected Arbuscular Mycorrhizal Fungi, Nutrient Concentrations, and Yield in Sunflower. <i>Agronomy Journal</i> , 2018 , 110, 2664-2672	2.2	9
18	Root traits of European Vicia faba cultivars-Using machine learning to explore adaptations to agroclimatic conditions. <i>Plant, Cell and Environment</i> , 2018 , 41, 1984-1996	8.4	8
17	Effects of tillage intensity on pore system and physical quality of silt-textured soils detected by multiple methods. <i>Soil Research</i> , 2019 , 57, 703	1.8	7

16	Characterization of Cover Crop Rooting Types from Integration of Rhizobox Imaging and Root Atlas Information. <i>Plants</i> , 2019 , 8,	4.5	6
15	Do cover crops enhance soil greenhouse gas losses during high emission moments under temperate Central Europe conditions?. <i>Bodenkultur</i> , 2018 , 68, 171-187	0.3	5
14	Deep Learning in Hyperspectral Image Reconstruction from Single RGB images – Case Study on Tomato Quality Parameters. <i>Remote Sensing</i> , 2020 , 12, 3258	5	3
13	Plant Roots for Sustainable Soil Structure Management in Cropping Systems 2021 , 45-90		3
12	Bodenverdichtung im Dauergrünland und ihre Auswirkung auf die Grünlandvegetation. <i>Bodenkultur</i> , 2017 , 68, 113-129	0.3	2
11	Application of NIR hyperspectral imaging for water distribution measurements in plant roots and soil 2016 ,		2
10	Field investigation of topsoil moisture and temperature as drivers for decomposition or germination of sclerotia (<i>Sclerotinia sclerotiorum</i>) under winter-killed cover crops. <i>Acta Agriculturae Scandinavica - Section B Soil and Plant Science</i> , 2022 , 72, 527-537	1.1	2
9	Root system architecture – budget experimental system for monitoring and analyses. <i>Biologia (Poland)</i> , 2017 , 72, 988-994	1.5	1
8	Assessing the effect of lucerne utilization systems in the Pannonian region of Austria. <i>Archives of Agronomy and Soil Science</i> , 2014 , 60, 297-311	2	1
7	Combining image analyses tools for comprehensive characterization of root systems from soil-filled rhizobox phenotyping platforms. <i>International Agrophysics</i> , 2021 , 35, 257-268	2	1
6	In-situ Beschreibung des Wurzelsystems von Hopfen und Mais – Freilegung am Bodenprofil. <i>Bodenkultur</i> , 2018 , 69, 121-130	0.3	1
5	Soil tillage and herbicide applications in pea: arbuscular mycorrhizal fungi, plant growth and nutrient concentration respond differently. <i>Archives of Agronomy and Soil Science</i> , 2020 , 66, 1679-1691	2	1
4	Root System Phenotyping of Soil-Grown Plants via RGB and Hyperspectral Imaging. <i>Methods in Molecular Biology</i> , 2021 , 2264, 245-268	1.4	0
3	Prospects of selection for barley seed vigour as a precondition for stand emergence under dry condition.. <i>KvasnĚPrůmysl</i> , 2013 , 59, 238-241	1.3	0
2	Phenotyping-Modelling Interfaces to Advance Breeding for Optimized Crop Root Systems 2021 , 375-424		0
1	N ₂ O Emissions from Two Austrian Agricultural Catchments Simulated with an N ₂ O Submodule Developed for the SWAT Model. <i>Atmosphere</i> , 2022 , 13, 50	2.7	