Gernot Bodner

List of Publications by Year in Descending Order

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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	N2O Emissions from Two Austrian Agricultural Catchments Simulated with an N2O Submodule Developed for the SWAT Model. *Atmosphere*, **2022**, 13, 50	2.7	
50	Field investigation of topsoil moisture and temperature as drivers for decomposition or germination of sclerotia (Sclerotinia sclerotiorum) under winter-killed cover crops. *Acta Agriculturae Scandinavica - Section B Soil and Plant Science*, **2022**, 72, 527-537	1.1	2
49	Combining image analyses tools for comprehensive characterization of root systems from soil-filled rhizobox phenotyping platforms. *International Agrophysics*, **2021**, 35, 257-268	2	1
48	Root System Phenotying of Soil-Grown Plants via RGB and Hyperspectral Imaging. *Methods in Molecular Biology*, **2021**, 2264, 245-268	1.4	0
47	Deep soil exploration vs. topsoil exploitation: distinctive rooting strategies between wheat landraces and wild relatives. *Plant and Soil*, **2021**, 459, 397-421	4.2	10
46	Plant Roots for Sustainable Soil Structure Management in Cropping Systems **2021**, 45-90		3
45	Phenotyping-Modelling Interfaces to Advance Breeding for Optimized Crop Root Systems **2021**, 375-424		0
44	Deep Learning in Hyperspectral Image Reconstruction from Single RGB images—A Case Study on Tomato Quality Parameters. *Remote Sensing*, **2020**, 12, 3258	5	3
43	Soil tillage and herbicide applications in pea: arbuscular mycorrhizal fungi, plant growth and nutrient concentration respond differently. *Archives of Agronomy and Soil Science*, **2020**, 66, 1679-1691	2	1
42	Effects of tillage intensity on pore system and physical quality of silt-textured soils detected by multiple methods. *Soil Research*, **2019**, 57, 703	1.8	7
41	Characterization of Cover Crop Rooting Types from Integration of Rhizobox Imaging and Root Atlas Information. *Plants*, **2019**, 8,	4.5	6
40	Trait identification of faba bean ideotypes for Northern European environments. *European Journal of Agronomy*, **2018**, 96, 1-12	5	15
39	Faba Bean Cultivation - Revealing Novel Managing Practices for More Sustainable and Competitive European Cropping Systems. *Frontiers in Plant Science*, **2018**, 9, 1115	6.2	61
38	Root traits of European Vicia faba cultivars-Using machine learning to explore adaptations to agroclimatic conditions. *Plant, Cell and Environment*, **2018**, 41, 1984-1996	8.4	8
37	Do cover crops enhance soil greenhouse gas losses during high emission moments under temperate Central Europe conditions?. *Bodenkultur*, **2018**, 68, 171-187	0.3	5
36	In-situ Beschreibung des Wurzelsystems von Hopfen und Mais per Freilegung am Bodenprofil. *Bodenkultur*, **2018**, 69, 121-130	0.3	1
35	Hyperspectral imaging: a novel approach for plant root phenotyping. *Plant Methods*, **2018**, 14, 84	5.8	40

34	Long-term Soil Tillage and Cover Cropping Affected Arbuscular Mycorrhizal Fungi, Nutrient Concentrations, and Yield in Sunflower. *Agronomy Journal*, **2018**, 110, 2664-2672	2.2	9
33	Combination of Measurement Methods for a Wide-Range Description of Hydraulic Soil Properties. *Water (Switzerland)*, **2018**, 10, 1021	3	11
32	Land use change impacts on floods at the catchment scale: Challenges and opportunities for future research. *Water Resources Research*, **2017**, 53, 5209-5219	5.4	162
31	Root system architecture budget experimental system for monitoring and analyses. *Biologia (Poland)*, **2017**, 72, 988-994	1.5	1
30	RGB and Spectral Root Imaging for Plant Phenotyping and Physiological Research: Experimental Setup and Imaging Protocols. *Journal of Visualized Experiments*, **2017**,	1.6	14
29	Root architecture simulation improves the inference from seedling root phenotyping towards mature root systems. *Journal of Experimental Botany*, **2017**, 68, 965-982	7	30
28	Bodenverdichtung im Dauergrland und ihre Auswirkung auf die Grlandvegetation. *Bodenkultur* , **2017**, 68, 113-129	0.3	2
27	Estimation of runoff mitigation by morphologically different cover crop root systems. *Journal of Hydrology*, **2016**, 538, 667-676	6	61
26	Identification of Water Use Strategies at Early Growth Stages in Durum Wheat from Shoot Phenotyping and Physiological Measurements. *Frontiers in Plant Science*, **2016**, 7, 1155	6.2	46
25	Phenotyping: Using Machine Learning for Improved Pairwise Genotype Classification Based on Root Traits. *Frontiers in Plant Science*, **2016**, 7, 1864	6.2	22
24	Application of NIR hyperspectral imaging for water distribution measurements in plant roots and soil **2016**,		2
23	Can diversity in root architecture explain plant water use efficiency? A modeling study. *Ecological Modelling*, **2015**, 312, 200-210	3	56
22	Dissection of drought response of modern and underutilized wheat varieties according to Passiourav yield-water framework. *Frontiers in Plant Science*, **2015**, 6, 570	6.2	18
21	Management of crop water under drought: a review. *Agronomy for Sustainable Development*, **2015**, 35, 401-442	6.8	245
20	Wheat root diversity and root functional characterization. *Plant and Soil*, **2014**, 380, 211-229	4.2	41
19	Assessing the effect of lucerne utilization systems in the Pannonian region of Austria. *Archives of Agronomy and Soil Science*, **2014**, 60, 297-311	2	1
18	Coarse and fine root plants affect pore size distributions differently. *Plant and Soil*, **2014**, 380, 133-151	4.2	121
17	Root induced changes of effective 1D hydraulic properties in a soil column. *Plant and Soil*, **2014**, 381, 193-213	4.2	68

16	Vertical variations of soil hydraulic properties within two soil profiles and its relevance for soil water simulations. *Journal of Hydrology*, **2014**, 516, 169-181	6	51
15	Impact of contrasted maize root traits at flowering on water stress tolerance – A simulation study. *Field Crops Research*, **2014**, 165, 125-137	5.5	53
14	Modeling growth of different lucerne cultivars and their effect on soil water dynamics. *Agricultural Water Management*, **2013**, 119, 100-110	5.9	19
13	Environmental and management influences on temporal variability of near saturated soil hydraulic properties. *Geoderma*, **2013**, 204-205, 120-129	6.7	56
12	Field quantification of wetting-drying cycles to predict temporal changes of soil pore size distribution. *Soil and Tillage Research*, **2013**, 133, 1-9	6.5	44
11	A statistical approach to root system classification. *Frontiers in Plant Science*, **2013**, 4, 292	6.2	49
10	Prospects of selection for barley seed vigour as a precondition for stand emergence under dry condition.. *Kvasn Prmysl*, **2013**, 59, 238-241	1.3	0
9	Improving Water Use Efficiency for Sustainable Agriculture **2012**, 167-211		9
8	Time-variable soil hydraulic properties in near-surface soil water simulations for different tillage methods. *Agricultural Water Management*, **2011**, 99, 42-50	5.9	37
7	Soil Hydraulic Properties of Recently Tilled Soil under Cropping Rotation Compared with Two-Year Pasture. *Vadose Zone Journal*, **2011**, 10, 354-366	2.7	34
6	Temporal dynamics of soil hydraulic properties and the water-conducting porosity under different tillage. *Soil and Tillage Research*, **2011**, 113, 89-98	6.5	143
5	Improved evaluation of cover crop species by growth and root factors. *Agronomy for Sustainable Development*, **2010**, 30, 455-464	6.8	31
4	Assessing yield optimization and water reduction potential for summer-sown and spring-sown maize in Pakistan. *Agricultural Water Management*, **2010**, 97, 731-737	5.9	10
3	A dynamic root system growth model based on L-Systems. *Plant and Soil*, **2010**, 332, 177-192	4.2	113
2	Natural and management-induced dynamics of hydraulic conductivity along a cover-cropped field slope. *Geoderma*, **2008**, 146, 317-325	6.7	48
1	Cover crop evapotranspiration under semi-arid conditions using FAO dual crop coefficient method with water stress compensation. *Agricultural Water Management*, **2007**, 93, 85-98	5.9	85