Rony Wallach

List of Publications by Year
in descending order

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38 papers	1,278 citations	471509 17 h-index	377865 34 g-index
38 all docs	38 docs citations	38 times ranked	1566 citing authors

#	Article	IF	Citations
1	Improving plant stress tolerance and yield production: is the tonoplast aquaporin SlTIP2;2 a key to isohydric to anisohydric conversion?. New Phytologist, 2009, 181, 651-661.	7.3	302
2	Role of aquaporins in determining transpiration and photosynthesis in waterâ€stressed plants: crop waterâ€use efficiency, growth and yield. Plant, Cell and Environment, 2015, 38, 1785-1793.	5.7	195
3	Highâ€throughput physiological phenotyping and screening system for the characterization of plantâ€“environment interactions. Plant Journal, 2017, 89, 839-850.	5.7	123
4	Transfer of Chemicals from Soil solution to Surface Runoff: A Diffusionâ€based Soil Model. Soil Science Society of America Journal, 1988, 52, 612-618.	2.2	78
5	Unstable finger-like flow in water-repellent soils during wetting and redistribution â€“ The case of a point water source. Journal of Hydrology, 2008, 351, 26-41.	5.4	48
6	Dynamic Physiological Phenotyping of Drought-Stressed Pepper Plants Treated With â€œProductivity-Enhancingâ€• and â€œSurvivability-Enhancingâ€•Biostimulants. Frontiers in Plant Science, 2019, 10, 905.	3.6	48
7	Formation of soilâ€“water repellency in olive orchards and its influence on infiltration pattern. Geoderma, 2016, 262, 1-11.	5.1	43
8	Structure and hydraulic properties in soils under long-term irrigation with treated wastewater. Geoderma, 2019, 333, 90-98.	5.1	39
9	The role of contact angle on unstable flow formation during infiltration and drainage in wettable porous media. Water Resources Research, 2013, 49, 6508-6521.	4.2	30
10	Quantitative analysis of wetting front instabilities in soil caused by treated waste water irrigation. Geoderma, 2018, 319, 132-141.	5.1	23
11	Development of synchronized, autonomous, and self-regulated oscillations in transpiration rate of a whole tomato plant under water stress. Journal of Experimental Botany, 2010, 61, 3439-3449.	4.8	22
12	Induced heterogeneity of soil water content and chemical properties by treated wastewater irrigation and its reclamation by freshwater irrigation. Water Resources Research, 2017, 53, 4756-4774.	4.2	22
13	Moment analysis description of wetting and redistribution plumes in wettable and water-repellent soils. Journal of Hydrology, 2012, 422-423, 30-42.	5.4	21
14	Natural variation and gene regulatory basis for the responses of asparagus beans to soil drought. Frontiers in Plant Science, 2015, 6, 891.	3.6	21
15	Effect of soil water repellency on moisture distribution from a subsurface point source. Water Resources Research, 2010, 46, .	4.2	20
16	Synergistic effects of geometry, inertia, and dynamic contact angle on wetting and dewetting of capillaries of varying cross sections. Journal of Colloid and Interface Science, 2013, 396, 270-277.	9.4	20
17	The influence of surfactant-application method on the effectiveness of water-repellent soil remediation. Geoderma, 2020, 362, 114081.	5.1	18
18	The movingâ€boundary approach for modeling gravityâ€driven stable and unstable flow in soils. Water Resources Research, 2017, 53, 344-360.	4.2	17

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19	Riskâ€management strategies and transpiration rates of wild barley in uncertain environments. Physiologia Plantarum, 2018, 164, 412-428.	5.2	17
20	Detection of Potassium Deficiency and Momentary Transpiration Rate Estimation at Early Growth Stages Using Proximal Hyperspectral Imaging and Extreme Gradient Boosting. Sensors, 2021, 21, 958.	3.8	17
21	A Telemetric, Gravimetric Platform for Real-Time Physiological Phenotyping of Plant–Environment Interactions. Journal of Visualized Experiments, 2020, , .	0.3	17
22	Capillary pressure overshoot for unstable wetting fronts is explained by Hoffman's velocityâ€dependent contactâ€angle relationship. Water Resources Research, 2014, 50, 5290-5297.	4.2	16
23	ERT and salinity â€“ A method to determine whether ERT-detected preferential pathways in brackish water-irrigated soils are water-induced or an artifact of salinity. Journal of Hydrology, 2019, 574, 35-45.	5.4	16
24	Modeling the Losses of Soil-applied Chemicals in Runoff: Lateral Irrigation versus Precipitation. Soil Science Society of America Journal, 1988, 52, 605-612.	2.2	12
25	The Movingâ€Boundary Approach for Modeling 2â€D Gravityâ€Driven Stable and Unstable Flow in Partially Wettable Soils. Water Resources Research, 2020, 56, e2019WR025772.	4.2	12
26	Spatial variation of soil water repellency in a commercial orchard irrigated with treated wastewater. Geoderma, 2019, 333, 214-224.	5.1	11
27	Water infiltration into subcritical water-repellent soils with time-dependent contact angle. Journal of Hydrology, 2021, 595, 126044.	5.4	11
28	Remediating the Adverse Effects of Treated Wastewater Irrigation by Repeated Onâ€Surface Surfactant Application. Water Resources Research, 2021, 57, e2020WR029429.	4.2	10
29	The Effect of Contact Angle on Saturation Overshoot. Vadose Zone Journal, 2011, 10, 466-468.	2.2	8
30	Physical Characteristics of Soilless Media. , 2019, , 33-112.		8
31	Effects of Timeâ€Dependent Contact Angle on Wettability of Subcritically Waterâ€Repellent Soils. Water Resources Research, 2020, 56, e2020WR027314.	4.2	7
32	A combination of stomata deregulation and a distinctive modulation of amino acid metabolism are associated with enhanced tolerance of wheat varieties to transient drought. Metabolomics, 2017, 13, 1.	3.0	6
33	An extension of Miller scaling to scale sorptivity by contact angle. Water Resources Research, 2013, 49, 6927-6932.	4.2	5
34	Pepper Plants Leaf Spectral Reflectance Changes as a Result of Root Rot Damage. Remote Sensing, 2021, 13, 980.	4.0	5
35	Does biochar affect soil wettability and flow pattern?. Geoderma, 2022, 417, 115826.	5.1	5
36	Kinetics of gravityâ€driven slug flow in partially wettable capillaries of varying cross section. Water Resources Research, 2016, 52, 8472-8486.	4.2	3

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37	Modeling Gravityâ€Driven Unstable Flow in Subcritical Waterâ€Repellent Soils With a Timeâ€Dependent Contact Angle. Water Resources Research, 2022, 58, .	4.2	2
38	Gravity-driven unsteady-state slug fall in capillaries â€“ modeling and experimental verification. Journal of Adhesion Science and Technology, 2016, 30, 2146-2156.	2.6	0