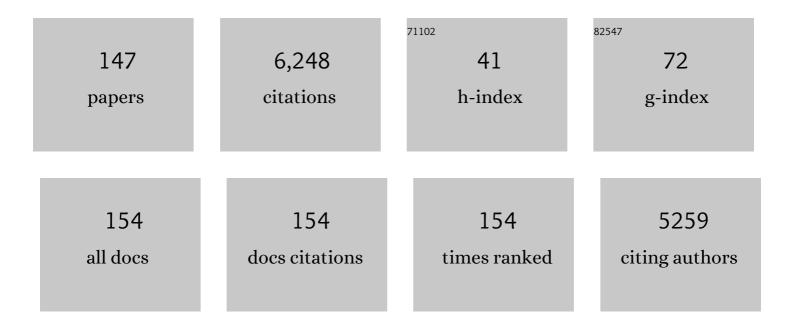
List of Publications by Year in descending order

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SHMUEL ASSOLUTINE

#	Article	IF	CITATIONS
1	Modeling Soil Processes: Review, Key Challenges, and New Perspectives. Vadose Zone Journal, 2016, 15, 1-57.	2.2	445
2	Characteristic lengths affecting evaporative drying of porous media. Physical Review E, 2008, 77, 056309.	2.1	358
3	Effects of rainfall intensity and slope gradient on the dynamics of interrill erosion during soil surface sealing. Catena, 2006, 66, 211-220.	5.0	267
4	Rainfallâ€Induced Soil Surface Sealing: A Critical Review of Observations, Conceptual Models, and Solutions. Vadose Zone Journal, 2004, 3, 570-591.	2.2	204
5	A conceptual model of the soil water retention curve. Water Resources Research, 1998, 34, 223-231.	4.2	170
6	Infiltration into soils: Conceptual approaches and solutions. Water Resources Research, 2013, 49, 1755-1772.	4.2	170
7	Critical knowledge gaps and research priorities in global soil salinity. Advances in Agronomy, 2021, , 1-191.	5.2	151
8	Balancing water scarcity and quality for sustainable irrigated agriculture. Water Resources Research, 2015, 51, 3419-3436.	4.2	140
9	Evaporation from a small water reservoir: Direct measurements and estimates. Journal of Hydrology, 2008, 351, 218-229.	5.4	130
10	Modeling the dynamics of seal formation and its effect on infiltration as related to soil and rainfall characteristics. Water Resources Research, 1997, 33, 1527-1536.	4.2	122
11	The concept of field capacity revisited: Defining intrinsic static and dynamic criteria for soil internal drainage dynamics. Water Resources Research, 2014, 50, 4787-4802.	4.2	120
12	Conceptual and Parametric Representation of Soil Hydraulic Properties: A Review. Vadose Zone Journal, 2013, 12, 1-20.	2.2	118
13	Effect of Compaction on Soil Physical and Hydraulic Properties: Experimental Results and Modeling. Soil Science Society of America Journal, 1997, 61, 390.	2.2	117
14	Modeling the Relationship between Soil Bulk Density and the Water Retention Curve. Vadose Zone Journal, 2006, 5, 554-563.	2.2	112
15	The role of soil-surface sealing, microtopography, and vegetation patches in rainfall-runoff processes in semiarid areas. Water Resources Research, 2013, 49, 5585-5599.	4.2	104
16	Modeling the Relationship between Soil Bulk Density and the Hydraulic Conductivity Function. Vadose Zone Journal, 2006, 5, 697-705.	2.2	101
17	A model for soil relative hydraulic conductivity based on the water retention characteristic curve. Water Resources Research, 2001, 37, 265-271.	4.2	94
18	Rainfall induced soil seal (A) A critical review of observations and models. Catena, 1990, 17, 185-203.	5.0	93

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19	Evaporation from three water bodies of different sizes and climates: Measurements and scaling analysis. Advances in Water Resources, 2008, 31, 160-172.	3.8	89
20	The Effects of Microdrip and Conventional Drip Irrigation on Water Distribution and Uptake. Soil Science Society of America Journal, 2002, 66, 1630-1636.	2.2	79
21	Modeling soil seal as a nonuniform layer. Water Resources Research, 1989, 25, 2101-2108.	4.2	77
22	Soilâ€Plant System Response to Pulsed Drip Irrigation and Salinity. Soil Science Society of America Journal, 2006, 70, 1556-1568.	2.2	73
23	Evaporation from Lake Kinneret: 1. Eddy correlation system measurements and energy budget estimates. Water Resources Research, 1993, 29, 901-910.	4.2	68
24	Changes in Chemical Properties of Semiarid Soils under Long-Term Secondary Treated Wastewater Irrigation. Soil Science Society of America Journal, 2012, 76, 1358-1369.	2.2	65
25	Infiltration during soil sealing: The effect of areal heterogeneity of soil hydraulic properties. Water Resources Research, 2002, 38, 22-1-22-9.	4.2	63
26	High fertigation frequency and phosphorus level: Effects on summer-grown bell pepper growth and blossom-end rot incidence. Plant and Soil, 2005, 270, 135-146.	3.7	62
27	Effects of a shading screen on microclimate and crop water requirements. Irrigation Science, 2006, 25, 171-181.	2.8	62
28	Rainfall-Induced Soil Surface Sealing: A Critical Review of Observations, Conceptual Models, and Solutions. Vadose Zone Journal, 2004, 3, 570-591.	2.2	61
29	A probabilistic approach towards modeling the relationships between particle and pore size distributions: the multicomponent packed sphere case. Powder Technology, 1998, 96, 33-41.	4.2	58
30	Evaporation suppression from water reservoirs: Efficiency considerations of partial covers. Water Resources Research, 2011, 47, .	4.2	57
31	Effects of longâ€ŧerm irrigation with treated wastewater on the hydraulic properties of a clayey soil. Water Resources Research, 2011, 47, .	4.2	57
32	Runoff from heterogeneous small bare catchments during soil surface sealing. Water Resources Research, 2006, 42, .	4.2	56
33	A simple accurate method to predict time of ponding under variable intensity rainfall. Water Resources Research, 2007, 43, .	4.2	56
34	Infiltration from the Pedon to Global Grid Scales: An Overview and Outlook for Land Surface Modeling. Vadose Zone Journal, 2019, 18, 1-53.	2.2	56
35	Effect of Longâ€Term Irrigation with Treated Wastewater on the Root Zone Environment. Vadose Zone Journal, 2013, 12, 1-10.	2.2	51
36	Estimation of lake hydrologic budget terms using the simultaneous solution of water, heat, and salt balances and a Kalman Filtering Approach: Application to Lake Kinneret. Water Resources Research, 1993, 29, 3041-3048.	4.2	50

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37	Evaporation from a shallow water table: Diurnal dynamics of water and heat at the surface of drying sand. Water Resources Research, 2013, 49, 4022-4034.	4.2	49
38	Analysis of the impact of surface layer properties on evaporation from porous systems using column experiments and modified definition of characteristic length. Water Resources Research, 2014, 50, 3933-3955.	4.2	49
39	Climate, not conflict, explains extreme Middle East dust storm. Environmental Research Letters, 2016, 11, 114013.	5.2	48
40	Evaporation from partially covered water surfaces. Water Resources Research, 2010, 46, .	4.2	47
41	Effect of Water Surface Salinity on Evaporation: The Case of a Diluted Buoyant Plume Over the Dead Sea. Water Resources Research, 2018, 54, 1460-1475.	4.2	46
42	Modeling the relationships between particle and pore size distributions in multicomponent sphere packs: application to the water retention curve. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1997, 127, 201-210.	4.7	45
43	Effects of Effluent Irrigation on Seal Formation, Infiltration, and Soil Loss during Rainfall. Soil Science Society of America Journal, 2005, 69, 1432-1439.	2.2	41
44	Impact of ambient conditions on evaporation from porous media. Water Resources Research, 2014, 50, 6696-6712.	4.2	41
45	The dual role of soil crusts in desertification. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2108-2119.	3.0	41
46	Scale dependence of Hortonian rainfallâ€runoff processes in a semiarid environment. Water Resources Research, 2016, 52, 5149-5166.	4.2	41
47	Modeling the dynamics of soil seal formation: Analysis of the effect of soil and rainfall properties. Water Resources Research, 2000, 36, 2341-2349.	4.2	40
48	Irrigation with desalinated water: A step toward increasing water saving and crop yields. Water Resources Research, 2015, 51, 450-464.	4.2	40
49	Soil water content variability at the hillslope scale: Impact of surface sealing. Water Resources Research, 2012, 48, .	4.2	38
50	Effect of rainfall-induced soil seals on soil water regime: Wetting processes. Water Resources Research, 1993, 29, 1651-1659.	4.2	37
51	Natural length scales define the range of applicability of the Richards equation for capillary flows. Water Resources Research, 2015, 51, 7130-7144.	4.2	37
52	On the variability of the Priestleyâ€Taylor coefficient over water bodies. Water Resources Research, 2016, 52, 150-163.	4.2	37
53	Unsaturated hydraulic conductivity function based on a soil fragmentation process. Water Resources Research, 2001, 37, 1309-1312.	4.2	36
54	On the relationships between the pore size distribution index and characteristics of the soil hydraulic functions. Water Resources Research, 2005, 41, .	4.2	34

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55	Evaporation from a reservoir with fluctuating water level: Correcting for limited fetch. Journal of Hydrology, 2011, 404, 146-156.	5.4	34
56	Anisotropy factor of saturated and unsaturated soils. Water Resources Research, 2006, 42, .	4.2	33
57	Seasonal and diurnal evaporation from a deep hypersaline lake: The Dead Sea as a case study. Journal of Hydrology, 2018, 562, 155-167.	5.4	33
58	Modified Brinkman equation for a free flow problem at the interface of porous surfaces: The Cantor-Taylor brush configuration case. Water Resources Research, 2002, 38, 56-1-56-13.	4.2	32
59	Effects of heterogeneous soilâ€water diffusivity on vegetation pattern formation. Water Resources Research, 2014, 50, 5743-5758.	4.2	32
60	Evaporation From Deep Aquifers in Arid Regions: Analytical Model for Combined Liquid and Vapor Water Fluxes. Water Resources Research, 2018, 54, 4805-4822.	4.2	32
61	Mathematical Model for Rain Drop Distribution and Rainfall Kinetic Energy. Transactions of the American Society of Agricultural Engineers, 1986, 29, 0494-0500.	0.9	31
62	The roles of fruit sink in the regulation of gas exchange and water uptake: A case study for avocado. Agricultural Water Management, 2013, 116, 21-28.	5.6	31
63	Estimating hydraulic properties of rainfall-induced soil surface seals from infiltration experiments and X-ray bulk density measurements. Journal of Hydrology, 2007, 341, 12-26.	5.4	29
64	Dynamics of Soil Surface Bulk Density: Role of Water Table Elevation and Rainfall Duration. Soil Science Society of America Journal, 2008, 72, 412-423.	2.2	29
65	Prediction of spatially variable unsaturated hydraulic conductivity using scaled particleâ€size distribution functions. Water Resources Research, 2013, 49, 4219-4229.	4.2	27
66	Combined Effect of Sodicity and Organic Matter on Soil Properties under Longâ€īerm Irrigation with Treated Wastewater. Vadose Zone Journal, 2016, 15, 1-10.	2.2	27
67	Plant Water Use Efficiency over Geological Time – Evolution of Leaf Stomata Configurations Affecting Plant Gas Exchange. PLoS ONE, 2013, 8, e67757.	2.5	27
68	Rainfall induced soil seal (C) A dynamic model with kinetic energy instead of cumulative rainfall as independent variable. Catena, 1990, 17, 289-303.	5.0	25
69	Effects of management policies, including artificial recharge, on salinization in a sloping aquifer: The Israeli Coastal Aquifer case. Water Resources Research, 2004, 40, .	4.2	25
70	The Similarity of Regional Rainfall: A Dimensionless Model of Drop Size Distribution. Transactions of the American Society of Agricultural Engineers, 1989, 32, 1216-1222.	0.9	24
71	Use of Bulk Density Profiles from Xâ€Radiography to Examine Structural Crust Models. Soil Science Society of America Journal, 2004, 68, 1169-1176.	2.2	24
72	Water uptake, active root volume, and solute leaching under drip irrigation: A numerical study. Water Resources Research, 2009, 45, .	4.2	24

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73	Microdrip Irrigation of Field Crops. Soil Science Society of America Journal, 2002, 66, 228-235.	2.2	23
74	Response of â€~Hass' avocado trees to irrigation management and root constraint. Agricultural Water Management, 2012, 104, 95-103.	5.6	23
75	Diurnal Course of Evaporation From the Dead Sea in Summer: A Distinct Double Peak Induced by Solar Radiation and Night Sea Breeze. Water Resources Research, 2018, 54, 150-160.	4.2	23
76	Modeling Rainfallâ€Runoff and Soil Erosion Processes on Hillslopes With Complex Rill Network Planform. Water Resources Research, 2018, 54, 10,117.	4.2	23
77	Free Flow at the Interface of Porous Surfaces: A Generalization of the Taylor Brush Configuration. Transport in Porous Media, 2004, 54, 345-360.	2.6	22
78	Secondary dispersal driven by overland flow in drylands: Review and mechanistic model development. Movement Ecology, 2014, 2, 7.	2.8	22
79	Avocado fertilization: Matching the periodic demand for nutrients. Scientia Horticulturae, 2018, 241, 231-240.	3.6	22
80	Title is missing!. Transport in Porous Media, 2003, 53, 75-94.	2.6	21
81	On the Diurnal Soil Water Content Dynamics during Evaporation using Dielectric Methods. Vadose Zone Journal, 2010, 9, 709-718.	2.2	21
82	An explicit, parsimonious, and accurate estimate for ponded infiltration into soils using the <scp> G</scp> reen and <scp> A</scp> mpt approach. Water Resources Research, 2017, 53, 7481-7487.	4.2	21
83	Irrigation of â€~Hass' avocado: effects of constant vs. temporary water stress. Irrigation Science, 2019, 37, 451-460.	2.8	19
84	Microdrip Irrigation of Field Crops. Soil Science Society of America Journal, 2002, 66, 228.	2.2	19
85	Evaporation from Lake Kinneret: 2. Estimation of the Horizontal variability using a two-dimensional numerical mesoscale model. Water Resources Research, 1993, 29, 911-916.	4.2	18
86	Modeling soil compaction under uniaxial compression. Soil Science Society of America Journal, 2002, 66, 1784-1787.	2.2	18
87	Drop size distributions and kinetic energy rates in variable intensity rainfall. Water Resources Research, 2009, 45, .	4.2	18
88	The effects of container geometry on water and heat regimes in soilless culture: lettuce as a case study. Irrigation Science, 2015, 33, 53-65.	2.8	18
89	Spatial and Temporal Variability in Microclimate and Evaporation over Lake Kinneret: Experimental Evaluation. Journal of Applied Meteorology and Climatology, 1996, 35, 1076-1084.	1.7	17
90	Simulation of Non-enzymatic Template-directed Synthesis of Oligonucleotides and Peptides. Journal of Theoretical Biology, 2001, 208, 117-125.	1.7	17

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91	Effect of wind variability on topographic waves: Lake Kinneret case. Journal of Geophysical Research, 2007, 112, .	3.3	17
92	Soil seal formation and its effect on infiltration: Uniform versus nonuniform seal approximation. Water Resources Research, 2001, 37, 297-305.	4.2	16
93	Response of Leucadendron †Safari Sunset' to regulated deficit irrigation: Effects of stress timing on growth and yield quality. Agricultural Water Management, 2007, 87, 162-170.	5.6	16
94	Modelling the physical characteristics of simulated rainfall: a comparison with natural rainfall. Journal of Hydrology, 1997, 196, 336-347.	5.4	15
95	The effect of soil surface sealing on vegetation water uptake along a dry climatic gradient. Water Resources Research, 2015, 51, 7452-7466.	4.2	15
96	Deviations from unity of the ratio of the turbulent Schmidt to Prandtl numbers in stratified atmospheric flows over water surfaces. Physical Review Fluids, 2016, 1, .	2.5	15
97	Air entry–based characteristic length for estimation of permeability of variably compacted earth materials. Water Resources Research, 2008, 44, .	4.2	14
98	Combined effect of irrigation regime and fruit load on the patterns of trunk-diameter variation of â€~Hass' avocado at different phenological periods. Agricultural Water Management, 2013, 129, 87-94.	5.6	14
99	Evaluating the relative air permeability of porous media from their water retention curves. Water Resources Research, 2016, 52, 3428-3439.	4.2	14
100	Introduction and evaluation of a <scp>W</scp> eibull hydraulic conductivityâ€pressure head relationship for unsaturated soils. Water Resources Research, 2017, 53, 4956-4964.	4.2	14
101	Soil Sealing, Infiltration and Runoff. Water Science and Technology Library, 1996, , 131-181.	0.3	14
102	Rainfall induced soil seal (B) Application of a new model to saturated soils. Catena, 1990, 17, 205-218.	5.0	13
103	Erosion and Lateral Surface Processes. Vadose Zone Journal, 2017, 16, 1-4.	2.2	13
104	Mitigating the Impact of Irrigation With Effluent Water: Mixing With Freshwater and/or Adjusting Irrigation Management and Design. Water Resources Research, 2020, 56, e2020WR027781.	4.2	13
105	What Can We Learn From the Water Retention Characteristic of a Soil Regarding Its Hydrological and Agricultural Functions? Review and Analysis of Actual Knowledge. Water Resources Research, 2021, 57, e2021WR031026.	4.2	13
106	Tillage Effects on Water and Salt Distribution in a Vertisol during Effluent Irrigation and Rainfall. Agronomy Journal, 2002, 94, 1295-1304.	1.8	11
107	Liquid and Vapor Water in Vadose Zone Profiles Above Deep Aquifers in Hyperâ€Arid Environments. Water Resources Research, 2019, 55, 3619-3631.	4.2	11
108	Impact of Water Regime and Growing Conditions on Soil–Plant Interactions: From Single Plant to Field Scale. Vadose Zone Journal, 2012, 11, vzj2012.0006.	2.2	10

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109	Soil Surface Sealing Effect on Soil Moisture at a Semiarid Hillslope: Implications for Remote Sensing Estimation. Remote Sensing, 2014, 6, 7469-7490.	4.0	10
110	Evaporation From Soil Containers With Irregular Shapes. Water Resources Research, 2017, 53, 8795-8806.	4.2	10
111	A Simple Method to Design Irrigation Rate and Duration and Improve Water Use Efficiency. Water Resources Research, 2019, 55, 6295-6301.	4.2	10
112	Frequency analysis of storm-scale soil erosion and characterization of extreme erosive events by linking the DWEPP model and a stochastic rainfall generator. Science of the Total Environment, 2021, 787, 147609.	8.0	10
113	Hydraulic characteristics and water relations of net house-grown bell pepper as affected by irrigation regimes in a Mediterranean climate. Environmental and Experimental Botany, 2006, 57, 226-235.	4.2	9
114	Prediction of Unsaturated Relative Hydraulic Conductivity from Kosugi's Water Retention Function. Procedia Environmental Sciences, 2013, 19, 609-617.	1.4	9
115	The foam drainage equation for unsaturated flow in porous media. Water Resources Research, 2013, 49, 6258-6265.	4.2	9
116	Insights from "The Hidden Half― The impact of root-zone oxygen and redox dynamics on the response of avocado to long-term irrigation with treated wastewater in clayey soil. Israel Journal of Plant Sciences, 2017, 64, 1-18.	0.5	8
117	Estimation of Intrinsic Length Scales of Flow in Unsaturated Porous Media. Water Resources Research, 2017, 53, 9980-9987.	4.2	8
118	Highâ€Resolution Measurement of Topographic Changes in Agricultural Soils. Vadose Zone Journal, 2017, 16, 1-18.	2.2	8
119	Tillage and Saline Irrigation Effects on Water and Salt Distribution in a Sloping Field. Soil Science Society of America Journal, 2000, 64, 2096-2102.	2.2	7
120	Evaporation From Multilayered Heterogeneous Bare Soil Profiles. Water Resources Research, 2019, 55, 5770-5783.	4.2	7
121	Quantifying Shallow Overland Flow Patterns Under Laboratory Simulations Using Thermal and LiDAR Imagery. Water Resources Research, 2021, 57, e2020WR028857.	4.2	7
122	Introduction to a special section on ecohydrology of semiarid environments: Confronting mathematical models with ecosystem complexity. Water Resources Research, 2015, 51, 8677-8683.	4.2	6
123	Electrical Resistivity Tomography of the Root Zone. SSSA Special Publication Series, 0, , 223-245.	0.2	6
124	The foam drainage equation for drainage dynamics in unsaturated porous media. Water Resources Research, 2017, 53, 5706-5724.	4.2	6
125	Reducing Evaporation From Water Reservoirs Using Floating Lattice Structures. Water Resources Research, 2021, 57, e2021WR029670.	4.2	6
126	Effects of Water Applications and Soil Tillage on Water and Salt Distribution in a Vertisol. Soil Science Society of America Journal, 2003, 67, 852.	2.2	5

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127	Compaction effects on evaporation and salt precipitation in drying porous media. Hydrology and Earth System Sciences, 2022, 26, 2499-2517.	4.9	5
128	Reply [to "Comment on â€~Effect of Rainfall-Induced Soil Seals on Soil Water Regime: Wetting Processes' by Y. Mualem, S. Assouline, and D. Eltahanâ€]. Water Resources Research, 1995, 31, 235-236.	4.2	4
129	Effects of Water Applications and Soil Tillage on Water and Salt Distribution in a Vertisol. Soil Science Society of America Journal, 2003, 67, 852-858.	2.2	4
130	Temporal variability of soil water content in a semiarid hillslope across time scales: Effect of soil surface condition. Journal of Arid Environments, 2015, 112, 64-74.	2.4	4
131	Soil Surface Sealing and Crusting. Encyclopedia of Earth Sciences Series, 2011, , 786-791.	0.1	4
132	Modeling Transient Evaporation From Porous Media as a Succession of Steady‧tate Steps. Water Resources Research, 2021, 57, e2021WR030245.	4.2	4
133	Lateral Flow and Contributing Area Control Vegetation Cover in a Semiarid Environment. Water Resources Research, 2021, 57, e2021WR030998.	4.2	4
134	Modeling the Disordered Dense Phase in the Packing of Binary Mixtures of Spheres. Journal of Colloid and Interface Science, 1998, 204, 87-92.	9.4	3
135	Comment on "Column-scale unsaturated hydraulic conductivity estimates in coarse-textured homogeneous and layered soils derived under steady-state evaporation from a water table―by M. Sadeghi, M. Tuller, M.R. Gohardoust and S.B. Jones. Journal of Hydrology, 2015, 529, 1274-1276.	5.4	3
136	The effect of irrigation level in the kernel dry matter accumulation period on almond yield, kernel dry weight, fruit count, and canopy size. Irrigation Science, 2018, 36, 1-8.	2.8	3
137	Synchrotron microtomographic quantification of geometrical soil pore characteristics affected by compaction. Soil, 2016, 2, 211-220.	4.9	2
138	On the Relationships Between Radar Reflectivity and Rainfall Rate and Kinetic Energy Resulting From a Weibull Drop Size Distribution. Water Resources Research, 2020, 56, e2020WR028156.	4.2	2
139	Infiltration. , 2006, , 7-1-7-18.		2
140	Unique Relationship Between Rate and Cumulative Flow: A Property of Infiltration and Evaporation in Soils. Geophysical Research Letters, 2022, 49, .	4.0	2
141	Comment on "A partial contributing area model for linking rainfall simulation data with hydrographs of a small arid watershed―by J. Ben-Asher and G. Humborg. Water Resources Research, 1994, 30, 139-141.	4.2	1
142	Comment on "Laboratory evaluation of a hydrodynamic inverse modeling method based on water content data―by S. Lambot, F. Hupet, M. Javaux, and M. Vanclooster. Water Resources Research, 2004, 40, .	4.2	1
143	Wind Spatial Variability and Topographic Wave Frequency. Journal of Physical Oceanography, 2008, 38, 2085-2096.	1.7	1
144	Computed Tomographic Evaluation of Earth Materials with Varying Resolutions. SSSA Special Publication Series, 0, , 97-112.	0.2	1

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145	The impact of tree phenology on the response of irrigated avocado: The hysteretic nature of the maximum trunk daily shrinkage. Agricultural Water Management, 2021, 256, 107104.	5.6	1
146	Lorentzian Filter Correction of Turbulence Measurements on Oscillating Floating Platforms: Impact on Wind Spectra and Eddyâ€Covariance Fluxes. Water Resources Research, 2021, 57, e2020WR027583.	4.2	0
147	Crusts and seals: Structural. , 2022, , .		Ο