Christian TÃ¶tzke

List of Publications by Year
in descending order

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32	938	516561	501076
papers	citations	16	28
		h-index	g-index

36	36	36	988
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Three-dimensional study of compressed gas diffusion layers using synchrotron X-ray imaging. Journal of Power Sources, 2014, 253, 123-131.	4.0	102
2	Influence of cracks in the microporous layer on the water distribution in a PEM fuel cell investigated by synchrotron radiography. Electrochemistry Communications, 2013, 34, 22-24.	2.3	98
3	Visualization of the water distribution in perforated gas diffusion layers by means of synchrotron X-ray radiography. International Journal of Hydrogen Energy, 2012, 37, 7757-7761.	3.8	82
4	Capturing 3D Water Flow in Rooted Soil by Ultra-fast Neutron Tomography. Scientific Reports, 2017, 7, 6192.	1.6	74
5	Large area high resolution neutron imaging detector for fuel cell research. Journal of Power Sources, 2011, 196, 4631-4637.	4.0	69
6	Investigation of Energyâ€Relevant Materials with Synchrotron Xâ€Rays and Neutrons. Advanced Engineering Materials, 2011, 13, 712-729.	1.6	63
7	3D microstructure modeling of compressed fiber-based materials. Journal of Power Sources, 2014, 257, 52-64.	4.0	62
8	Pore network modeling to explore the effects of compression on multiphase transport in polymer electrolyte membrane fuel cell gas diffusion layers. Journal of Power Sources, 2016, 335, 162-171.	4.0	60
9	Synchrotron X-ray radioscopic in situ study of high-temperature polymer electrolyte fuel cells - Effect of operation conditions on structure of membrane. Journal of Power Sources, 2014, 246, 290-298.	4.0	49
10	What comes NeXT? â€“ High-Speed Neutron Tomography at ILL. Optics Express, 2019, 27, 28640.	1.7	39
11	Stochastic 3D modeling of non-woven materials with wet-proofing agent. International Journal of Hydrogen Energy, 2013, 38, 8448-8460.	3.8	34
12	Influence of hydrophobic treatment on the structure of compressed gas diffusion layers. Journal of Power Sources, 2016, 324, 625-636.	4.0	29
13	Mapping water, oxygen, and pH dynamics in the rhizosphere of young maize roots. Journal of Plant Nutrition and Soil Science, 2017, 180, 336-346.	1.1	26
14	Visualization of embolism formation in the xylem of liana stems using neutron radiography. Annals of Botany, 2013, 111, 723-730.	1.4	18
15	External water transport is more important than vascular transport in the extreme atmospheric epiphyte <scp>Tillandsia usneoides</scp> (Spanish moss). Plant, Cell and Environment, 2019, 42, 1645-1656.	2.8	17
16	Echinoderms: Hierarchically Organized Light Weight Skeletons. Biologically-inspired Systems, 2015, , 141-155.	0.4	17
17	Investigation of the three-dimensional ruthenium distribution in fresh and aged membrane electrode assemblies with synchrotron X-ray absorption edge tomography. Electrochemistry Communications, 2011, 13, 826-829.	2.3	15
18	Combining Neutron and Magnetic Resonance Imaging to Study the Interaction of Plant Roots and Soil. Physics Procedia, 2015, 69, 237-243.	1.2	15

#	Article	IF	Citations
19	Non-invasive detection and localization of microplastic particles in a sandy sediment by complementary neutron and X-ray tomography. Journal of Soils and Sediments, 2021, 21, 1476-1487.	1.5	15
20	Three-dimensional in vivo analysis of water uptake and translocation in maize roots by fast neutron tomography. Scientific Reports, 2021, 11, 10578.	1.6	11
21	Total Internal Reflectance-Infrared Structural Studies on Tensile Water Formation during Evaporation from Nanopores. Journal of Physical Chemistry C, 2008, 112, 6313-6318.	1.5	9
22	Quantification of root water uptake and redistribution using neutron imaging: a review and future directions. Plant Journal, 2022, 111, 348-359.	2.8	9
23	Electrode deterioration processes in lithium ion capacitors monitored by in situ X-ray radiography on micrometre scale. Micro and Nano Letters, 2012, 7, 262.	0.6	7
24	Neutron computed laminography yields 3D root system architecture and complements investigations of spatiotemporal rhizosphere patterns. Plant and Soil, 2021, 469, 489-501.	1.8	6
25	Imaging of root zone processes using MRI T 1 mapping. Microporous and Mesoporous Materials, 2018, 269, 43-46.	2.2	5
26	Investigation of Carbon Fiber Gas Diffusion Layers by Means of Synchrotron X-ray Tomography. ECS Transactions, 2011, 41, 379-386.	0.3	4
27	Tomografische Methoden fÃ¼r die Brennstoffzellenforschungâ€”. Materialpruefung/Materials Testing, 2013, 55, 207-213.	0.8	2
28	Response of linden tree to nocturnal simulation of daylight conditions. Environmental and Experimental Botany, 2021, 187, 104477.	2.0	1
29	Investigation of Fuel Cell Materials and Liquid Water Transport by Means of Synchrotron Imaging. ECS Transactions, 2013, 45, 195-202.	0.3	0
30	Influence of Artificial Aging of Gas Diffusion Layers on the Water Management of PEM Fuel Cells. ECS Meeting Abstracts, 2013, , .	0.0	0
31	RÃ¶ntgentomografische Untersuchung eines kommerziellen Lithium-Ionen-Kondensators*. Materialpruefung/Materials Testing, 2014, 56, 722-727.	0.8	0
32	X-ray Compton line scan tomography*. Materialpruefung/Materials Testing, 2015, 57, 985-991.	0.8	0