

# Hannelore Derluyn

## List of Publications by Year in descending order

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34  
papers

1,255  
citations

430754

18  
h-index

434063

31  
g-index

35  
all docs

35  
docs citations

35  
times ranked

1351  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of different approaches for self-healing concrete in a large-scale lab test. <i>Construction and Building Materials</i> , 2016, 107, 125-137.	3.2	171
2	A Pore-Scale Study of Fracture Dynamics in Rock Using X-ray Micro-CT Under Ambient Freeze-Thaw Cycling. <i>Environmental Science &amp; Technology</i> , 2015, 49, 2867-2874.	4.6	118
3	Metastability Limit for the Nucleation of NaCl Crystals in Confinement. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 890-895.	2.1	90
4	Influence of the nature of interfaces on the capillary transport in layered materials. <i>Construction and Building Materials</i> , 2011, 25, 3685-3693.	3.2	71
5	Deformation and damage due to drying-induced salt crystallization in porous limestone. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 63, 242-255.	2.3	69
6	Neutron radiography and X-ray computed tomography for quantifying weathering and water uptake processes inside porous limestone used as building material. <i>Materials Characterization</i> , 2014, 88, 86-99.	1.9	64
7	Drying of salt contaminated porous media: Effect of primary and secondary nucleation. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	64
8	Predicting salt damage in practice: A theoretical insight into laboratory tests.. <i>RILEM Technical Letters</i> , 0, 2, 108-118.	0.0	60
9	Hysteretic moisture behavior of concrete: Modeling and analysis. <i>Cement and Concrete Research</i> , 2012, 42, 1379-1388.	4.6	53
10	Hopper Growth of Salt Crystals. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2961-2966.	2.1	52
11	Data-fusion of high resolution X-ray CT, SEM and EDS for 3D and pseudo-3D chemical and structural characterization of sandstone. <i>Micron</i> , 2015, 74, 15-21.	1.1	45
12	Moisture transfer through mortar joints: A sharp-front analysis. <i>Cement and Concrete Research</i> , 2012, 42, 1105-1112.	4.6	44
13	Sodium sulfate heptahydrate I: The growth of single crystals. <i>Journal of Crystal Growth</i> , 2011, 329, 44-51.	0.7	41
14	Characterizing saline uptake and salt distributions in porous limestone with neutron radiography and X-ray micro-tomography. <i>Journal of Building Physics</i> , 2013, 36, 353-374.	1.2	34
15	Crystallization of hydrated and anhydrous salts in porous limestone resolved by synchrotron X-ray microtomography. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2014, 324, 102-112.	0.6	33
16	Influence of sorption hysteresis on moisture transport in wood. <i>Wood Science and Technology</i> , 2016, 50, 259-283.	1.4	30
17	Hygroscopic Behavior of Paper and Books. <i>Journal of Building Physics</i> , 2007, 31, 9-34.	1.2	22
18	Decay processes in buildings close to the sea induced by marine aerosol: Salt depositions inside construction materials. <i>Science of the Total Environment</i> , 2020, 721, 137687.	3.9	22

#	ARTICLE	IF	CITATIONS
19	Characterization of composition and structure of clay minerals in sandstone with ptychographic X-ray nanotomography. <i>Applied Clay Science</i> , 2015, 118, 258-264.	2.6	21
20	Comparison between traditional laboratory tests, permeability measurements and CT-based fluid flow modelling for cultural heritage applications. <i>Science of the Total Environment</i> , 2016, 554-555, 102-112.	3.9	18
21	Biogenic concrete protection driven by the formate oxidation by <i>Methylocystis parvus</i> OBBP. <i>Frontiers in Microbiology</i> , 2015, 6, 786.	1.5	14
22	Saline Water Evaporation and Crystallization-Induced Deformations in Building Stone: Insights from High-Resolution Neutron Radiography. <i>Transport in Porous Media</i> , 2019, 128, 895-913.	1.2	14
23	Numerical simulation of salt transport and crystallization in drying Prague sandstone using an experimentally consistent multiphase model. <i>Building and Environment</i> , 2017, 123, 289-298.	3.0	13
24	Conservation studies of cultural heritage: X-ray imaging of dynamic processes in building materials. <i>European Journal of Mineralogy</i> , 2015, 27, 269-278.	0.4	12
25	A multi-scale approach for the analysis of the mechanical effects of salt crystallisation in porous media. <i>International Journal of Solids and Structures</i> , 2017, 126-127, 225-239.	1.3	12
26	Multi-disciplinary characterization and monitoring of sandstone (Kandla Grey) under different external conditions. <i>Quarterly Journal of Engineering Geology and Hydrogeology</i> , 2013, 46, 95-106.	0.8	11
27	X-ray computed micro-tomography to study the porous structure and degradation processes of a building stone from Sabucina (Sicily). <i>European Journal of Mineralogy</i> , 2015, 27, 279-288.	0.4	11
28	First investigation of quartz and calcite shape fabrics in strained shales by means of X-ray tomography. <i>Journal of Structural Geology</i> , 2020, 130, 103905.	1.0	11
29	In-situ versus laboratory characterization of historical site in marine environment using X-ray fluorescence and Raman spectroscopy. <i>Microchemical Journal</i> , 2019, 147, 905-913.	2.3	10
30	Micro-scale chemical and physical patterns in an interface of hydrothermal dolomitization reveals the governing transport mechanisms in nature: Case of the Layens anticline, Pyrenees, France. <i>Sedimentology</i> , 2021, 68, 834-854.	1.6	10
31	Towards a more effective and reliable salt crystallisation test for porous building materials: Predictive modelling of sodium chloride salt distribution. <i>Construction and Building Materials</i> , 2021, 304, 124436.	3.2	9
32	Advancing the visualization of pure water transport in porous materials by fast, talbot interferometry-based multi-contrast x-ray micro-tomography. , 2016, , .		3
33	Texture and mineralogy influence on durability: the Macigno sandstone. <i>Quarterly Journal of Engineering Geology and Hydrogeology</i> , 2017, 50, 393-401.	0.8	3
34	Numerical Modeling of Crystallization-Induced Fracturing in Porous Limestone. , 2013, , .		0