Tim De Kock

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/46069/publications.pdf

Version: 2024-02-01

55 papers	1,215 citations	361296 20 h-index	395590 33 g-index
55 all docs	55 docs citations	55 times ranked	1396 citing authors

#	Article	IF	Citations
1	A Pore-Scale Study of Fracture Dynamics in Rock Using X-ray Micro-CT Under Ambient Freezeâ€“Thaw Cycling. Environmental Science & Technology, 2015, 49, 2867-2874.	4.6	118
2	A review on freeze-thaw action and weathering of rocks. Earth-Science Reviews, 2020, 203, 103143.	4.0	117
3	4D imaging and quantification of pore structure modifications inside natural building stones by means of high resolution X-ray CT. Science of the Total Environment, 2012, 416, 436-448.	3.9	82
4	3D mapping of water in oolithic limestone at atmospheric and vacuum saturation using X-ray micro-CT differential imaging. Materials Characterization, 2014, 97, 150-160.	1.9	68
5	Neutron radiography and X-ray computed tomography for quantifying weathering and water uptake processes inside porous limestone used as building material. Materials Characterization, 2014, 88, 86-99.	1.9	64
6	Methane Bubble Growth and Migration in Aquatic Sediments Observed by X-ray Î¼CT. Environmental Science & Technology, 2018, 52, 2007-2015.	4.6	57
7	Monitoring of Stainless-Steel Slag Carbonation Using X-ray Computed Microtomography. Environmental Science & Technology, 2014, 48, 674-680.	4.6	50
8	X-ray microtomography (Î¼-CT) to evaluate microstructure of mortars containing low density additions. Cement and Concrete Composites, 2012, 34, 993-1000.	4.6	49
9	Weathering assessment under X-ray tomography of building stones exposed to acid atmospheres at current pollution rate. Construction and Building Materials, 2018, 168, 187-198.	3.2	36
10	Investigating the relative permeability behavior of microporosityâ€rich carbonates and tight sandstones with multiscale pore network models. Journal of Geophysical Research: Solid Earth, 2016, 121, 7929-7945.	1.4	34
11	Highâ€resolution Xâ€ray CT for 3D petrography of ferruginous sandstone for an investigation of building stone decay. Microscopy Research and Technique, 2011, 74, 1006-1017.	1.2	33
12	Microstructural examination and potential application of rendering mortars made of tire rubber and expanded polystyrene wastes. Construction and Building Materials, 2015, 94, 817-825.	3.2	28
13	In Situ Triaxial Testing To Determine Fracture Permeability and Aperture Distribution for CO₂ Sequestration in Svalbard, Norway. Environmental Science & Technology, 2018, 52, 4546-4554.	4.6	27
14	Holistic approach of pre-existing flaws on the decay of two limestones. Science of the Total Environment, 2013, 447, 403-414.	3.9	23
15	Laminar gypsum crust on lede stone: Microspatial characterization and laboratory acid weathering. Talanta, 2017, 162, 193-202.	2.9	23
16	Rock fabric heterogeneity and its influence on the petrophysical properties of a building limestone: Lede stone (Belgium) as an example. Engineering Geology, 2017, 216, 31-41.	2.9	22
17	Investigation of the effect of specific interfacial area on strength of unsaturated granular materials by X-ray tomography. Acta Geotechnica, 2019, 14, 1545-1559.	2.9	22
18	The role of ink-bottle pores in freeze-thaw damage of oolithic limestone. Construction and Building Materials, 2020, 246, 118515.	3.2	22

#	Article	IF	Citations
19	Characterization of composition and structure of clay minerals in sandstone with ptychographic X-ray nanotomography. Applied Clay Science, 2015, 118, 258-264.	2.6	21
20	Impact of the urban heat island on freeze-thaw risk of natural stone in the built environment, a case study in Ghent, Belgium. Science of the Total Environment, 2019, 677, 9-18.	3.9	21
21	Uniaxial compressive strength measurements of limestone plugs and cores: a size comparison and X-ray CT study. Bulletin of Engineering Geology and the Environment, 2019, 78, 5301-5310.	1.6	20
22	Characterization, performance and replacement stone compatibility of building stone in the 12th century tower of Dudzele (Belgium). Engineering Geology, 2015, 184, 43-51.	2.9	19
23	X-ray tomography and chemicalâ€“physical study of a calcarenite extracted from a Roman quarry in Cartagena (Spain). Engineering Geology, 2014, 171, 21-30.	2.9	17
24	Differential colonization of microbial communities inhabiting Lede stone in the urban and rural environment. Science of the Total Environment, 2020, 733, 139339.	3.9	17
25	Liquid moisture transport in combined ceramic brick and natural hydraulic lime mortar samples: Does the hygric interface resistance dominate the moisture transport?. Journal of Building Physics, 2019, 43, 208-228.	1.2	16
26	Does historic construction suffer or benefit from the urban heat island effect in Ghent and global warming across Europe?. Canadian Journal of Civil Engineering, 2019, 46, 1032-1042.	0.7	15
27	The capabilities of bacteria and archaea to alter natural building stones â€“ A review. International Biodeterioration and Biodegradation, 2021, 165, 105329.	1.9	14
28	Replacement stones for Lede stone in Belgian historical monuments. Geological Society Special Publication, 2014, 391, 31-46.	0.8	13
29	Conservation studies of cultural heritage: X-ray imaging of dynamic processes in building materials. European Journal of Mineralogy, 2015, 27, 269-278.	0.4	12
30	Efficiency assessment of hybrid coatings for natural building stones: Advanced and multi-scale laboratory investigation. Construction and Building Materials, 2018, 180, 412-424.	3.2	12
31	Multi-disciplinary characterization and monitoring of sandstone (Kandla Grey) under different external conditions. Quarterly Journal of Engineering Geology and Hydrogeology, 2013, 46, 95-106.	0.8	11
32	X-ray computed micro-tomography to study the porous structure and degradation processes of a building stone from Sabucina (Sicily). European Journal of Mineralogy, 2015, 27, 279-288.	0.4	11
33	Origin and timing of past hillslope activity in the hyper-arid core of the Atacama Desert â€“ The formation of fine sediment lobes along the Chuculay Fault System, Northern Chile. Global and Planetary Change, 2020, 184, 103057.	1.6	11
34	NaCl-related weathering of stone: the importance of kinetics and salt mixtures in environmental risk assessment. Heritage Science, 2021, 9, .	1.0	11
35	Lede Stone: A potential Â“Global Heritage Stone ResourceÂ” from Belgium. Episodes, 2015, 38, 91-96.	0.8	11
36	Preliminary characterization of flint raw material used on prehistoric sites in NW Belgium. Geoarchaeology - an International Journal, 2019, 34, 400-412.	0.7	10

#	Article	IF	Citations
37	A sealed flint knapping site from the Younger Dryas in the Scheldt valley (Belgium): Bridging the gap in human occupation at the Pleistoceneâ€“Holocene transition in W Europe. Journal of Archaeological Science, 2014, 50, 420-439.	1.2	9
38	Towards a more effective and reliable salt crystallisation test for porous building materials: Predictive modelling of sodium chloride salt distribution. Construction and Building Materials, 2021, 304, 124436.	3.2	9
39	Generalized Osteosclerotic Condition in the Skeleton of Nanophoca vitulinoides, a Dwarf Seal from the Miocene of Belgium. Journal of Mammalian Evolution, 2019, 26, 517-543.	1.0	7
40	Understanding the Microstructure of Mortars for Cultural Heritage Using X-ray CT and MIP. Materials, 2021, 14, 5939.	1.3	7
41	A compact low cost cooling stage for lab based x-ray micro-CT setups. AIP Conference Proceedings, 2016, , .	0.3	6
42	Effect of initial fabric on the undrained response of clean Chlef sand. European Journal of Environmental and Civil Engineering, 2019, , 1-16.	1.0	6
43	Thermal Alteration of Flint: An Experimental Approach to Investigate the Effect on Material Properties. Lithic Technology, 2021, 46, 27-44.	0.4	6
44	Neutron Radiography Study of Laboratory Ageing and Treatment Applications with Stone Consolidants. Nanomaterials, 2019, 9, 635.	1.9	5
45	The effects of cyanobacterial biofilms on water transport and retention of natural building stones. Earth Surface Processes and Landforms, 2022, 47, 1921-1936.	1.2	5
46	Multi-scale laboratory routine in the efficacy assessment of conservative products for natural stones. MethodsX, 2018, 5, 1095-1101.	0.7	4
47	Burning flint: An experimental approach to study the effect of fire on flint tools. Journal of Archaeological Science: Reports, 2021, 36, 102854.	0.2	3
48	Texture and mineralogy influence on durability: the Macigno sandstone. Quarterly Journal of Engineering Geology and Hydrogeology, 2017, 50, 393-401.	0.8	3
49	Mineralogical transformations in sandstone: a fingerprint for prehistorical heating of Palaeolithic hearth stones. European Journal of Mineralogy, 2015, 27, 651-657.	0.4	2
50	A well-preserved Michelsberg Culture domed oven from Kortrijk, Belgium. Antiquity, 2019, 93, 342-358.	0.5	2
51	Treatise of Digital Reconstruction and Restauration of Lace Porcelain. Lecture Notes in Computer Science, 2018, , 15-26.	1.0	2
52	Charge balance calculations for mixed salt systems applied to a large dataset from the built environment. Scientific Data, 2022, 9, .	2.4	2
53	Historical decision-making for the choice of natural stone in St Bavo's Cathedral tower in Ghent, Belgium. Geology Today, 2016, 32, 148-153.	0.3	0
54	Time-resolved and Multi-modal Evaluation of Building Stone Weathering â€“ New Advances in 4D Imaging and Analysis. Microscopy and Microanalysis, 2020, 26, 1052-1054.	0.2	0

#	Article	IF	Citations
55	Examining the Potential of Enzyme-Based Detergents to Remove Biofouling from Limestone Heritage. Coatings, 2022, 12, 375.	1.2	0