

HECTOR: A 240kV micro-CT setup optimized for research

Journal of Physics: Conference Series

463, 012012

DOI: [10.1088/1742-6596/463/1/012012](https://doi.org/10.1088/1742-6596/463/1/012012)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Impact of internal structure on water-resistance of plywood studied using neutron radiography and X-ray tomography. <i>Construction and Building Materials</i> , 2014, 73, 171-179.	3.2	28
2	Drying of salt contaminated porous media: Effect of primary and secondary nucleation. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	64
3	Mouse hallucal metatarsal cross-sectional geometry in a simulated fine branch niche. <i>Journal of Morphology</i> , 2015, 276, 759-765.	0.6	12
4	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
5	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
6	Multi-scale, micro-computed tomography-based pore network models to simulate drainage in heterogeneous rocks. <i>Advances in Water Resources</i> , 2015, 78, 36-49.	1.7	183
7	A realistic projection simulator for laboratory based X-ray micro-CT. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2015, 342, 170-178.	0.6	22
8	Cavitation: a blessing in disguise? New method to establish vulnerability curves and assess hydraulic capacitance of woody tissues. <i>Tree Physiology</i> , 2015, 35, 400-409.	1.4	72
9	Avoiding interpenetrations and the importance of nesting in analytic geometry construction for Representative Unit Cells of woven composite laminates. <i>Composites Science and Technology</i> , 2016, 136, 119-132.	3.8	45
10	Simulating secondary waterflooding in heterogeneous rocks with variable wettability using an image-based, multiscale pore network model. <i>Water Resources Research</i> , 2016, 52, 6833-6850.	1.7	13
11	The microstructure of capsule containing self-healing materials: A micro-computed tomography study. <i>Materials Characterization</i> , 2016, 119, 99-109.	1.9	26
12	Loss of Type I Collagen Telopeptide Lysyl Hydroxylation Causes Musculoskeletal Abnormalities in a Zebrafish Model of Bruck Syndrome. <i>Journal of Bone and Mineral Research</i> , 2016, 31, 1930-1942.	3.1	65
13	Novel injectable, self-gelling hydrogel-microparticle composites for bone regeneration consisting of gellan gum and calcium and magnesium carbonate microparticles. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 065011.	1.7	27
14	Investigating water transport in MDF and OSB using a gantry-based X-ray CT scanning system. <i>Wood Science and Technology</i> , 2016, 50, 1197-1211.	1.4	9
15	Indirect Solid Freeform Fabrication of an Initiator-Free Photocrosslinkable Hydrogel Precursor for the Creation of Porous Scaffolds. <i>Macromolecular Bioscience</i> , 2016, 16, 1883-1894.	2.1	16
16	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
17	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
18	Assessment of grouted samples from monopile wind turbine foundations using combined non-destructive techniques. <i>Construction and Building Materials</i> , 2016, 122, 855-862.	3.2	15

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19	Capillary water absorption in cracked and uncracked mortar – A comparison between experimental study and finite element analysis. <i>Construction and Building Materials</i> , 2016, 110, 154-162.	3.2	91
20	Moisture behavior and structural changes of plywood during outdoor exposure. <i>European Journal of Wood and Wood Products</i> , 2016, 74, 211-221.	1.3	11
21	Quantifying the spatial variation of <sup>7</sup> Be depth distributions towards improved erosion rate estimations. <i>Geoderma</i> , 2016, 269, 10-18.	2.3	12
22	The effect of craniokinesis on the middle ear of domestic chickens ( <i>Gallus gallus domesticus</i> ). <i>Journal of Anatomy</i> , 2017, 230, 414-423.	0.9	9
23	A multilevel framework to reconstruct anatomical 3D models of the hepatic vasculature in rat livers. <i>Journal of Anatomy</i> , 2017, 230, 471-483.	0.9	20
24	Integral procedure to assess crack filling and mechanical contribution of polymer-based healing agent in encapsulation-based self-healing concrete. <i>Cement and Concrete Composites</i> , 2017, 77, 68-80.	4.6	57
25	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
26	Rock fabric heterogeneity and its influence on the petrophysical properties of a building limestone: Ledestone (Belgium) as an example. <i>Engineering Geology</i> , 2017, 216, 31-41.	2.9	22
27	Nondestructive research on wooden musical instruments: From macro- to microscale imaging with lab-based X-ray CT systems. <i>Journal of Cultural Heritage</i> , 2017, 27, S78-S87.	1.5	21
28	Lattice Boltzmann Simulations of Fluid Flow in Continental Carbonate Reservoir Rocks and in Upscaled Rock Models Generated with Multiple-Point Geostatistics. <i>Geofluids</i> , 2017, 2017, 1-24.	0.3	10
29	Weathering assessment under X-ray tomography of building stones exposed to acid atmospheres at current pollution rate. <i>Construction and Building Materials</i> , 2018, 168, 187-198.	3.2	36
30	Visualizing 3D Food Microstructure Using Tomographic Methods: Advantages and Disadvantages. <i>Annual Review of Food Science and Technology</i> , 2018, 9, 323-343.	5.1	29
31	Do high sound pressure levels of crowing in roosters necessitate passive mechanisms for protection against self-vocalization?. <i>Zoology</i> , 2018, 126, 65-70.	0.6	2
32	Petrographic characterization to build an accurate rock model using micro-CT: Case study on low-permeable to tight turbidite sandstone from Eocene Shahejie Formation. <i>Micron</i> , 2018, 109, 22-33.	1.1	36
33	X-ray Radiography to Visualize the Rebar-Cementitious Matrix Interface and Judge the Delay in Corrosion through Self-Repair by Encapsulated Polyurethane. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701021.	1.9	9
34	Quantitative analysis of hepatic macro- and microvascular alterations during cirrhogenesis in the rat. <i>Journal of Anatomy</i> , 2018, 232, 485-496.	0.9	17
35	3D printing of high drug loaded dosage forms using thermoplastic polyurethanes. <i>International Journal of Pharmaceutics</i> , 2018, 536, 318-325.	2.6	156
36	Deformation of avian middle ear structures under static pressure loads, and potential regulation mechanisms. <i>Zoology</i> , 2018, 126, 128-136.	0.6	8

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37	Quasi-static and dynamic motions of the columellar footplate in ostrich ( <i>Struthio camelus</i> ) measured exÂvivo. <i>Hearing Research</i> , 2018, 357, 10-24.	0.9	9
38	An inconvenient truth about xylem resistance to embolism in the model species for refilling <i>Laurus nobilis</i> L.. <i>Annals of Forest Science</i> , 2018, 75, 1.	0.8	53
39	Effect of Polyurethane Viscosity on Self-Healing Efficiency of Cementitious Materials Exposed to High Temperatures from Sun Radiation. <i>Journal of Materials in Civil Engineering</i> , 2018, 30, .	1.3	12
40	In-Situ High Resolution Dynamic X-ray Microtomographic Imaging of Olive Oil Removal in Kitchen Sponges by Squeezing and Rinsing. <i>Materials</i> , 2018, 11, 1482.	1.3	8
41	Multiscale characterization of glass wools using X-ray micro-CT. <i>Materials Characterization</i> , 2019, 156, 109852.	1.9	7
42	Influence of <i>Quercus petraea</i> Liebl. wood structure on the permeation of oxygen through wine barrel staves. <i>Holzforschung</i> , 2019, 73, 859-870.	0.9	9
43	The inner ear of theParanthropusspecimen DNH 22 from Drimolen, South Africa. <i>American Journal of Physical Anthropology</i> , 2019, 170, 439-446.	2.1	7
44	Effect of initial fabric on the undrained response of clean Chlef sand. <i>European Journal of Environmental and Civil Engineering</i> , 2019, , 1-16.	1.0	6
45	Liquid moisture transport in combined ceramic brick and natural hydraulic lime mortar samples: Does the hygric interface resistance dominate the moisture transport?. <i>Journal of Building Physics</i> , 2019, 43, 208-228.	1.2	16
46	Prilling of API/fatty acid suspensions: Processability and characterisation. <i>International Journal of Pharmaceutics</i> , 2019, 572, 118756.	2.6	1
47	Airway morphometry in COPD with bronchiectasis: a view on all airway generations. <i>European Respiratory Journal</i> , 2019, 54, 1802166.	3.1	11
48	Non-Destructive Evaluation Techniques and What They Tell Us about Wood Property Variation. <i>Forests</i> , 2019, 10, 728.	0.9	81
49	Microstructural Characterization of 3D Printed Cementitious Materials. <i>Materials</i> , 2019, 12, 2993.	1.3	105
50	Hoatzin nestling locomotion: Acquisition of quadrupedal limb coordination in birds. <i>Science Advances</i> , 2019, 5, eaat0787.	4.7	16
51	Bony labyrinth shape differs distinctively between modern wolves and dogs. <i>Zoomorphology</i> , 2019, 138, 409-417.	0.4	5
52	Effects of micropores on geometric, topological and transport properties of pore systems for low-permeability porous media. <i>Journal of Hydrology</i> , 2019, 575, 327-342.	2.3	58
53	Investigation of the effect of specific interfacial area on strength of unsaturated granular materials by X-ray tomography. <i>Acta Geotechnica</i> , 2019, 14, 1545-1559.	2.9	22
54	Preliminary characterization of flint raw material used on prehistoric sites in NW Belgium. <i>Geoarchaeology - an International Journal</i> , 2019, 34, 400-412.	0.7	10

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55	Pectin-bioactive glass self-gelling, injectable composites with high antibacterial activity. <i>Carbohydrate Polymers</i> , 2019, 205, 427-436.	5.1	39
56	Size evolution of micropyrrite from diagenesis to low-grade metamorphism. <i>Geological Society Special Publication</i> , 2019, 478, 137-144.	0.8	3
57	Generalized Osteosclerotic Condition in the Skeleton of <i>Nanophoca vitulinoides</i> , a Dwarf Seal from the Miocene of Belgium. <i>Journal of Mammalian Evolution</i> , 2019, 26, 517-543.	1.0	7
58	Groundwater dynamics in a restored tidal marsh are limited by historical soil compaction. <i>Estuarine, Coastal and Shelf Science</i> , 2020, 244, 106101.	0.9	14
59	3D pore structure analysis of intact Braeburn™ apples using X-ray micro-CT. <i>Postharvest Biology and Technology</i> , 2020, 159, 111014.	2.9	29
60	Origin and timing of past hillslope activity in the hyper-arid core of the Atacama Desert – The formation of fine sediment lobes along the Chuculay Fault System, Northern Chile. <i>Global and Planetary Change</i> , 2020, 184, 103057.	1.6	11
61	Prilling of API/fatty acid suspensions: Screening of additives for drug release modification. <i>International Journal of Pharmaceutics</i> , 2020, 576, 119022.	2.6	0
62	Occlusal fissures in equine cheek teeth: µCT and histological findings. <i>Veterinary Journal</i> , 2020, 255, 105421.	0.6	7
63	Effect of operating conditions and feedstock composition on the properties of manganese oxide or quartz charcoal pellets for the use in ferroalloy industries. <i>Energy</i> , 2020, 193, 116736.	4.5	12
64	An open, modular, and flexible micro X-ray computed tomography system for research. <i>Review of Scientific Instruments</i> , 2020, 91, 113102.	0.6	20
65	Large-scale pore network and continuum simulations of solute longitudinal dispersivity of a saturated sand column. <i>Advances in Water Resources</i> , 2020, 144, 103713.	1.7	12
66	The atlas of StW 573 and the late emergence of human-like head mobility and brain metabolism. <i>Scientific Reports</i> , 2020, 10, 4285.	1.6	12
67	Laser welding of carbon fibre filled polytetrafluoroethylene. <i>Journal of Materials Processing Technology</i> , 2020, 282, 116681.	3.1	3
68	From Basic Particle Gradation Parameters to Water Retention Curves and Tensile Strength of Unsaturated Granular Soils. <i>International Journal of Geomechanics</i> , 2020, 20, .	1.3	7
69	The role of ink-bottle pores in freeze-thaw damage of oolitic limestone. <i>Construction and Building Materials</i> , 2020, 246, 118515.	3.2	22
70	Variational and Deep Learning Segmentation of Very-Low-Contrast X-ray Computed Tomography Images of Carbon/Epoxy Woven Composites. <i>Materials</i> , 2020, 13, 936.	1.3	35
71	The blue mussel inside: 3D visualization and description of the vascular-related anatomy of <i>Mytilus edulis</i> to unravel hemolymph extraction. <i>Scientific Reports</i> , 2020, 10, 6773.	1.6	15
72	Small airway loss in the physiologically ageing lung: a cross-sectional study in unused donor lungs. <i>Lancet Respiratory Medicine</i> , 2021, 9, 167-174.	5.2	41

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73	Thermal Alteration of Flint: An Experimental Approach to Investigate the Effect on Material Properties. <i>Lithic Technology</i> , 2021, 46, 27-44.	0.4	6
74	X-ray analysis on the effect of sample preparation on the microstructure of calcareous sands. <i>Marine Georesources and Geotechnology</i> , 2021, 39, 302-311.	1.2	10
75	Anisotropic small-strain stiffness of calcareous sand affected by sample preparation, particle characteristic and gradation. <i>Geotechnique</i> , 2021, 71, 305-319.	2.2	36
76	Construction of representative unit cells for FE analysis of textile composite plies. , 2021, , 105-140.		0
77	Determination of specific surface area of irregular aggregate by random sectioning and its comparison with conventional methods. <i>Construction and Building Materials</i> , 2021, 273, 122019.	3.2	15
78	Characterization of Open-Cell Sponges via Magnetic Resonance and X-ray Tomography. <i>Materials</i> , 2021, 14, 2187.	1.3	2
79	Integrating expert feedback on the spot in a time-efficient explorative CT scanning workflow for cultural heritage objects. <i>Journal of Cultural Heritage</i> , 2021, 49, 38-47.	1.5	19
80	ELMO1 signaling is a promoter of osteoclast function and bone loss. <i>Nature Communications</i> , 2021, 12, 4974.	5.8	16
81	Under pressure: the relationship between cranial shape and burrowing force in caecilians (Gymnophiona). <i>Journal of Experimental Biology</i> , 2021, 224, .	0.8	7
82	Can filaments, pellets and powder be used as feedstock to produce highly drug-loaded ethylene-vinyl acetate 3D printed tablets using extrusion-based additive manufacturing?. <i>International Journal of Pharmaceutics</i> , 2021, 607, 120922.	2.6	25
83	A lonely dot on the map: Exploring the climate signal in tree-ring density and stable isotopes of claret cedar, South Africa. <i>Dendrochronologia</i> , 2021, 69, 125879.	1.0	4
84	Oxygen diffusivity mapping of fruit and vegetables based on X-ray CT. <i>Journal of Food Engineering</i> , 2021, 306, 110640.	2.7	16
85	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
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89	Understanding the Microstructure of Mortars for Cultural Heritage Using X-ray CT and MIP. <i>Materials</i> , 2021, 14, 5939.	1.3	7
90	Identification of the Calcium, Aluminum, and Magnesium Distribution within Millimeter-Sized Extraterrestrial Materials Using Nonresonant X-ray Raman Spectroscopy in Preparation for the Hayabusa2 Sample Return Mission. <i>Analytical Chemistry</i> , 2021, 93, 14651-14658.	3.2	3

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91	Clinical insights into the three-dimensional anatomy of cheek teeth in alpacas based on micro-computed tomography. Part 1: mandibular cheek teeth. BMC Veterinary Research, 2021, 17, 334.	0.7	3
92	Micro-CT as a well-established technique to investigate the internal damage state of a composite laminate subjected to fatigue. , 2015, , 551-556.		0
93	Manual Application versus Autonomous Release of Water Repellent Agent to Prevent Reinforcement Corrosion in Cracked Concrete. Processes, 2021, 9, 2101.	1.3	0
94	Influence of internal volumetric imperfections on the tearing resistance curve of welded Single Edge notched Tension (SENT) specimens. Engineering Fracture Mechanics, 2022, 259, 108162.	2.0	1
95	Continuous Fiber-Reinforced Aramid/PETG 3D-Printed Composites with High Fiber Loading through Fused Filament Fabrication. Polymers, 2022, 14, 298.	2.0	21
96	The relationship between head shape, head musculature and bite force in caecilians (Amphibia: Tj ETQq1 1 0.784314 rgBT /Qverlock 10 0.8/5		
97	Understanding the mechanical strength and dynamic structural changes of wood-based products using X-ray computed tomography. Wood Material Science and Engineering, 2023, 18, 454-463.	1.1	2
98	Transport properties of 3D printed cementitious materials with prolonged time gap between successive layers. Cement and Concrete Research, 2022, 155, 106777.	4.6	17
99	Spin Freezing and Its Impact on Pore Size, Tortuosity and Solid State. Pharmaceutics, 2021, 13, 2126.	2.0	11
100	The evolutionary relationship between arm vertebrae shape and ecological lifestyle in brittle stars (Echinodermata: Ophiuroidea). Journal of Anatomy, 2021, , .	0.9	4
101	Influence of Fluid Distribution on Seismic Dispersion and Attenuation in Partially Saturated Limestone. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	8
102	3D Correlative Imaging of Lithium Ion Concentration in a Vertically Oriented Electrode Microstructure with a Density Gradient. Advanced Science, 2022, 9, e2105723.	5.6	6
103	Regional differences in vertebral shape along the axial skeleton in caecilians (Amphibia: Gymnophiona). Journal of Anatomy, 2022, , .	0.9	3
104	How does prestrain in the tympanic membrane affect middle-ear function? A finite-element model study in rabbit. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 131, 105261.	1.5	2
105	Is vertebral shape variability in caecilians (Amphibia: Gymnophiona) constrained by forces experienced during burrowing?. Journal of Experimental Biology, 2022, 225, .	0.8	2
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108	The anatomy of the head muscles in caecilians (Amphibia: Gymnophiona): Variation in relation to phylogeny and ecology?. Journal of Anatomy, 0, , .	0.9	0

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109	A histological description of alpaca ( <i>Vicugna pacos</i> ) cheek teeth: Findings and anatomical variations in macroscopically normal molars. <i>Frontiers in Veterinary Science</i> , 0, 9, .	0.9	0
110	Radiologic and Histologic Correlates of Early Interstitial Lung Changes in Explanted Lungs. <i>Radiology</i> , 2023, 307, .	3.6	1
111	Combining Automated Mineralogy with X-ray Computed Tomography for Internal Characterization of Ore Samples at the Microscopic Scale. <i>Natural Resources Research</i> , 2023, 32, 461-478.	2.2	1
112	Unravelling megaturbidite deposition: Evidence for turbidite stacking/amalgamation and seiche influence during the 1601 earthquake at Lake Lucerne, Switzerland. <i>Sedimentology</i> , 2023, 70, 1496-1520.	1.6	2