

# David Mannes

## List of Publications by Year in descending order

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66  
papers

1,294  
citations

304602

22  
h-index

395590

33  
g-index

71  
all docs

71  
docs citations

71  
times ranked

1519  
citing authors

#	ARTICLE	IF	CITATIONS
1	Gas Evolution in Operating Lithium-Ion Batteries Studied In Situ by Neutron Imaging. <i>Scientific Reports</i> , 2015, 5, 15627.	1.6	104
2	Visualization and quantification of liquid water transport in softwood by means of neutron radiography. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 6211-6221.	2.5	87
3	Olive Tree-Ring Problematic Dating: A Comparative Analysis on Santorini (Greece). <i>PLoS ONE</i> , 2013, 8, e54730.	1.1	60
4	Chasing quantitative biases in neutron imaging with scintillator-camera detectors: a practical method with black body grids. <i>Optics Express</i> , 2018, 26, 15769.	1.7	60
5	Combined Neutron and X-ray Imaging for Non-invasive Investigations of Cultural Heritage Objects. <i>Physics Procedia</i> , 2015, 69, 653-660.	1.2	57
6	Non-destructive testing of wood and wood-based materials. <i>Journal of Cultural Heritage</i> , 2012, 13, S26-S34.	1.5	56
7	Implementation and assessment of the black body bias correction in quantitative neutron imaging. <i>PLoS ONE</i> , 2019, 14, e0210300.	1.1	51
8	High-resolution proxies for wood density variations in <i>Terminalia superba</i> . <i>Annals of Botany</i> , 2011, 107, 293-302.	1.4	44
9	Application areas of synchrotron radiation tomographic microscopy for wood research. <i>Wood Science and Technology</i> , 2010, 44, 67-84.	1.4	37
10	Neutron imaging versus standard X-ray densitometry as method to measure tree-ring wood density. <i>Trees - Structure and Function</i> , 2007, 21, 605-612.	0.9	36
11	Non-destructive determination and quantification of diffusion processes in wood by means of neutron imaging. <i>Holzforschung</i> , 2009, 63, 589-596.	0.9	34
12	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
13	Fast Neutron Imaging with Semiconductor Nanocrystal Scintillators. <i>ACS Nano</i> , 2020, 14, 14686-14697.	7.3	34
14	The cork viewed from the inside. <i>Journal of Food Engineering</i> , 2015, 149, 214-221.	2.7	30
15	Probing inside fruit slices during convective drying by quantitative neutron imaging. <i>Journal of Food Engineering</i> , 2016, 178, 198-202.	2.7	30
16	Highly Concentrated, Zwitterionic Ligand-Capped Mn <sup>2+</sup> :CsPb(Br) <sub>x</sub> Cl <sub>3-x</sub> Nanocrystals as Bright Scintillators for Fast Neutron Imaging. <i>ACS Energy Letters</i> , 2021, 6, 4365-4373.	8.8	30
17	Progress in Industrial Applications using Modern Neutron Imaging Techniques. <i>Physics Procedia</i> , 2013, 43, 231-242.	1.2	28
18	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

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19	Combination of X-ray and digital image correlation for the analysis of moisture-induced strain in wood: opportunities and challenges. <i>European Journal of Wood and Wood Products</i> , 2012, 70, 407-413.	1.3	27
20	The olive-branch dating of the Santorini eruption. <i>Antiquity</i> , 2014, 88, 267-273.	0.5	25
21	Quantitative determination of bound water diffusion in multilayer boards by means of neutron imaging. <i>European Journal of Wood and Wood Products</i> , 2010, 68, 341-350.	1.3	24
22	On-the-fly Neutron Tomography of Water Transport into Lupine Roots. <i>Physics Procedia</i> , 2015, 69, 292-298.	1.2	23
23	Electrical conductivity sensors for water penetration monitoring in building masonry materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 2535-2547.	1.3	20
24	Neutron attenuation coefficients for non-invasive quantification of wood properties. <i>Holzforschung</i> , 2009, 63, 472-478.	0.9	19
25	On-line monitoring of hygroscopicity and dimensional changes of wood during thermal modification by means of neutron imaging methods. <i>Holzforschung</i> , 2015, 69, 87-95.	0.9	19
26	Wood investigations by means of radiation transmission techniques. <i>Journal of Cultural Heritage</i> , 2012, 13, S35-S43.	1.5	18
27	Combination of neutron imaging (NI) and digital image correlation (DIC) to determine intra-ring moisture variation in Norway spruce. <i>Holzforschung</i> , 2014, 68, 113-122.	0.9	15
28	Distribution of moisture in reconstructed oil paintings on canvas during absorption and drying: A neutron radiography and NMR study. <i>Studies in Conservation</i> , 2017, 62, 393-409.	0.6	15
29	Bragg-edge attenuation spectra at voxel level from 4D wavelength-resolved neutron tomography. <i>Journal of Applied Crystallography</i> , 2020, 53, 188-196.	1.9	15
30	Water vapour diffusion through historically relevant gluten-based wood adhesives with sorption measurements and neutron radiography. <i>Wood Science and Technology</i> , 2014, 48, 591-609.	1.4	14
31	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
32	Within-ring movement of free water in dehydrating Norway spruce sapwood visualized by neutron radiography. <i>Holzforschung</i> , 2012, 66, 751-756.	0.9	13
33	Influence of varnishing on the vibro-mechanical properties of wood used for violins. <i>Journal of Materials Science</i> , 2019, 54, 8063-8095.	1.7	13
34	Investigations into the influence of two different wood coatings on water diffusion determined by means of neutron imaging. <i>European Journal of Wood and Wood Products</i> , 2015, 73, 793-799.	1.3	12
35	The influence of multi-layered varnishes on moisture protection and vibrational properties of violin wood. <i>Scientific Reports</i> , 2019, 9, 18611.	1.6	12
36	Freeze-Drying with Structured Sublimation Fronts—Visualization with Neutron Imaging. <i>Processes</i> , 2020, 8, 1091.	1.3	12

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37	On the needle clogging of staked-in-needle pre-filled syringes: Mechanism of liquid entering the needle and solidification process. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 128, 272-281.	2.0	11
38	Adaptive Neutron Radiography Correlation for Simultaneous Imaging of Moisture Transport and Deformation in Hygroscopic Materials. <i>Experimental Mechanics</i> , 2015, 55, 403-415.	1.1	10
39	Design and Applications of a Climatic Chamber for in-situ Neutron Imaging Experiments. <i>Physics Procedia</i> , 2017, 88, 200-207.	1.2	10
40	Clogging in staked-in needle pre-filled syringes (SIN-PFS): Influence of water vapor transmission through the needle shield. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 127, 104-111.	2.0	10
41	Untersuchungen zum Wasseraufnahmekoeffizienten von Holz bei Variation von Holzart und Feuchtigkeit. <i>Bauphysik</i> , 2010, 32, 149-153.	1.2	9
42	The XTRA Option at the NEUTRA Facility – More Than 10 Years of Bi-Modal Neutron and X-ray Imaging at PSI. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3825.	1.3	9
43	Non-destructive Investigation of “The Violinist” a Lead Sculpture by Pablo Gargallo, Using the Neutron Imaging Facility NEUTRA in the Paul Scherrer Institute. <i>Physics Procedia</i> , 2015, 69, 636-645.	1.2	8
44	A Monte Carlo approach for scattering correction towards quantitative neutron imaging of polycrystals. <i>Journal of Applied Crystallography</i> , 2018, 51, 386-394.	1.9	8
45	Violin varnish induced changes in the vibro-mechanical properties of spruce and maple wood. <i>Holzforschung</i> , 2020, 74, 765-776.	0.9	8
46	Vergleichende Untersuchungen zu ausgewählten mechanischen Eigenschaften von Eibe und Fichte   Comparative studies on selected mechanical properties of yew and spruce (reviewed paper). <i>Schweizerische Zeitschrift Fur Forstwesen</i> , 2005, 156, 85-91.	0.5	7
47	Beyond the Visible: Combined Neutron and X-ray Imaging of an Altar Stone from the Former Augustinian Church in Fribourg, Switzerland. <i>Archaeometry</i> , 2014, 56, 717-727.	0.6	6
48	Frequency dependent mechanical properties of violin varnishes and their impact on vibro-mechanical tonewood properties. <i>Results in Materials</i> , 2021, 9, 100137.	0.9	6
49	Untersuchungen zum Einfluss der Klebstoffart auf den kapillaren Wassertransport in Holz parallel zur Faserrichtung. <i>Bauphysik</i> , 2012, 34, 61-65.	1.2	5
50	Visualising the Soot and Ash Distribution in Diesel Particulate Filters Using Neutron Imaging. <i>MTZ Worldwide</i> , 2012, 73, 56-61.	0.1	3
51	Gemmological Investigations on Pearls and Emeralds using Neutron Imaging. <i>Physics Procedia</i> , 2017, 88, 134-139.	1.2	3
52	Neutron Imaging of Cultural Heritage Objects. , 2022, , 211-237.		3
53	Untersuchungen zum Verhalten von mit Nanopartikeln imprägniertem Holz bei Freibwitterung. <i>Bauphysik</i> , 2010, 32, 226-232.	1.2	2
54	Neutron imaging methods for the investigation of energy related materials. <i>EPJ Web of Conferences</i> , 2015, 104, 01007.	0.1	2

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55	Neutron Imaging: A Non-Destructive Testing Method to Investigate Canned Exhaust After-Treatment System Components for the Three Dimensional Soot, Ash, Urea and Coating Distributions. , 2016, , .		2
56	Investigating plywood behaviour in outdoor conditions. International Wood Products Journal, 2016, 7, 220-224.	0.6	2
57	Space-resolved study of binder burnout process in dry pressed ZnO ceramics by neutron imaging. Journal of the European Ceramic Society, 2018, 38, 5448-5453.	2.8	2
58	Neutron imaging as tool for investigations on historical musical instruments. Journal of Archaeological Science: Reports, 2018, 20, 239-243.	0.2	2
59	Neutron Radiography and Tomography: A New Approach to Visualize the Internal Structures of Pearls. Journal of Gemmology, 2018, 36, 54-63.	0.1	2
60	Particle tracking velocimetry in liquid gallium flow around a cylindrical obstacle. Experiments in Fluids, 2022, 63, .	1.1	2
61	Untersuchungen zum Einfluss der Feuchtigkeit auf die Haftfestigkeit von Oberflächenbeschichtungen auf Holz. Bauphysik, 2014, 36, 337-342.	1.2	1
62	Untersuchungen zur Wasserdampfdurchlässigkeit von Beschichtungen auf Holz für den Außenbereich. Bauphysik, 2015, 37, 186-195.	1.2	1
63	Neutron and X-ray tomography in cultural heritage studies. , 2021, , 133-159.		1
64	Effect of coating systems as a barrier to humidity for lutherie woods studied by neutron radiography. Journal of Cultural Heritage, 2020, 43, 255-260.	1.5	0
65	Ideengeber Holz – ein Überblick   Wood: a provider of ideas – an overview. Schweizerische Zeitschrift Für Forstwesen, 2003, 154, 494-497.	0.5	0
66	Untersuchungen zu ausgewählten mechanischen Eigenschaften von Eschenholz   Investigation into certain mechanical properties of ash. Schweizerische Zeitschrift Für Forstwesen, 2005, 156, 432-437.	0.5	0