Johann Kastner

List of Publications by Year
in descending order

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99	2,142	257357	254106
papers	citations	24 h-index	43 g-index

104	104	104	2043
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Resonance Raman and infrared spectroscopy of carbon nanotubes. Chemical Physics Letters, 1994, 221, 53-58.	1.2	346
2	Reductive Preparation of Carbyne with High Yield. An in Situ Raman Scattering Study. Macromolecules, 1995, 28, 344-353.	2.2	134
3	Carbyne forms of carbon: continuation of the story. Carbon, 1994, 32, 1533-1536.	5.4	75
4	Electrochemical carbyne from perfluorinated hydrocarbons: Synthesis and stability studied by Raman scattering. Carbon, 1995, 33, 1321-1329.	5.4	74
5	Laminate fibre structure characterisation of carbon fibre-reinforced polymers by X-ray scatter dark field imaging with a grating interferometer. NDT and E International, 2013, 58, 64-71.	1.7	74
6	Raman spectra and ground state of the new low bandgap polymer poly(thienopyrazine). Synthetic Metals, 1995, 69, 593-594.	2.1	71
7	Damage and polymerization by ion bombardment of C60. Applied Physics Letters, 1994, 65, 543-545.	1.5	68
8	A comparative study of high resolution cone beam X-ray tomography and synchrotron tomography applied to Fe- and Al-alloys. NDT and E International, 2010, 43, 599-605.	1.7	62
9	Evaluation of Computed Tomography Data from Fibre Reinforced Polymers to Determine Fibre Length Distribution. International Polymer Processing, 2011, 26, 283-291.	0.3	58
10	Nondestructive characterization of fiber orientation in short fiber reinforced polymer composites with X-ray vector radiography. NDT and E International, 2017, 86, 65-72.	1.7	57
11	Conduction mechanisms in undoped thin films of C60 and C60/70. Synthetic Metals, 1993, 56, 3185-3190.	2.1	55
12	Investigation of polymer and polymer/fibre composite materials with optical coherence tomography. Measurement Science and Technology, 2008, 19, 074011.	1.4	51
13	High resolution cone beam X-ray computed tomography of 3D-microstructures of cast Al-alloys. Materials Characterization, 2011, 62, 99-107.	1.9	49
14	Raman Spectra of Poly(2,3-R,R-thieno[3,4-b]pyrazine). A New Low-Band-Gap Polymer. Macromolecules, 1995, 28, 2922-2929.	2.2	43
15	Doping of fullerenes by ion implantation. Nuclear Instruments & Methods in Physics Research B, 1993, 80-81, 1456-1459.	0.6	41
16	Surface Extraction from Multi-Material Components for Metrology using Dual Energy CT. IEEE Transactions on Visualization and Computer Graphics, 2007, 13, 1520-1527.	2.9	41
17	Microcrack characterization in loaded CFRP laminates using quantitative two- and three-dimensional X-ray dark-field imaging. Composites Part A: Applied Science and Manufacturing, 2018, 115, 206-214.	3.8	39
18	Fibre structure characterisation of injection moulded short fibre-reinforced polymers by X-ray scatter dark field tomography. Case Studies in Nondestructive Testing and Evaluation, 2015, 3, 34-41.	1.7	36

#	Article	IF	Citations
19	FiberScout: An Interactive Tool for Exploring and Analyzing Fiber Reinforced Polymers. , 2014, , .		33
20	3D analysis of macrosegregation in twin-roll cast AA3003 alloy. Materials Characterization, 2016, 118, 44-49.	1.9	33
21	Ion beam radiation damage of thin fullerene films. Nuclear Instruments & Methods in Physics Research B, 1996, 108, 114-124.	0.6	30
22	A model for clubfoot based on micro-CT data. Journal of Anatomy, 2007, 210, 761-766.	0.9	28
23	Additive manufacturing and non-destructive testing of topology-optimised aluminium components. Nondestructive Testing and Evaluation, 2020, 35, 315-327.	1.1	28
24	Surface area analysis of dental implants using micro-computed tomography. Clinical Oral Implants Research, 2007, 18, 459-464.	1.9	27
25	Porosity Determination of Carbon and Glass Fibre Reinforced Polymers Using Phase-Contrast Imaging. Journal of Nondestructive Evaluation, 2019, 38, 1.	1.1	27
26	Non-destructive characterisation of polymers and Al-alloys by polychromatic cone-beam phase contrast tomography. Materials Characterization, 2012, 64, 79-87.	1.9	25
27	Ion bombardment of C60: Raman study of amorphization and polymerization. Nuclear Instruments & Methods in Physics Research B, 1995, 96, 343-346.	0.6	22
28	Projection-Based Metal-Artifact Reduction for Industrial 3D X-ray Computed Tomography. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 2193-2202.	2.9	22
29	MObjects--A Novel Method for the Visualization and Interactive Exploration of Defects in Industrial XCT Data. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 2906-2915.	2.9	20
30	Virtual Reconstruction of Modern and Fossil Hominoid Crania: Consequences of Reference Sample Choice. Anatomical Record, 2015, 298, 827-841.	0.8	20
31	Porosity Maps â€“ Interactive Exploration and Visual Analysis of Porosity in Carbon Fiber Reinforced Polymers. Computer Graphics Forum, 2012, 31, 1185-1194.	1.8	19
32	Visual Analysis of Defects in Glass Fiber Reinforced Polymers for 4DCT Interrupted In situ Tests. Computer Graphics Forum, 2016, 35, 201-210.	1.8	19
33	Dynamic Volume Lines: Visual Comparison of 3D Volumes through Space-filling Curves. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 1040-1049.	2.9	19
34	Sputtering of fullerene by noble gas ions at high fluences. Nuclear Instruments & Methods in Physics Research B, 1995, 103, 415-422.	0.6	18
35	open_iA: A tool for processing and visual analysis of industrial computed tomography datasets. Journal of Open Source Software, 2019, 4, 1185.	2.0	18
36	High-resolution X-ray computed tomography for 3D microstructure characterization of a cellulose particle filled polymer foam. Journal of Cellular Plastics, 2011, 47, 567-578.	1.2	16

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37	InSpectr: Multiâ€Modal Exploration, Visualization, and Analysis of Spectral Data. Computer Graphics Forum, 2014, 33, 91-100.	1.8	15
38	Phase-contrast and dark-field imaging for the inspection of resin-rich areas and fiber orientation in non-crimp vacuum infusion carbon-fiber-reinforced polymers. Journal of Materials Science, 2021, 56, 9712-9727.	1.7	15
39	Optimal specimen placement in cone beam X-ray computed tomography. NDT and E International, 2012, 50, 42-49.	1.7	14
40	Non-Destructive Evaluation of Defects in Polymer Matrix Composites for Aerospace Applications Using X-ray Talbot-Lau Interferometry and Micro CT. , 2017, , .		14
41	Characterization of medical and biological samples with a Talbotâ€“Lau grating interferometer Î¼XCT in comparison to reference methods. Case Studies in Nondestructive Testing and Evaluation, 2016, 6, 30-38.	1.7	13
42	Visualization of intervertebral disc degeneration in a cadaveric human lumbar spine using microcomputed tomography. Journal of Anatomy, 2020, 236, 243-251.	0.9	12
43	X-ray Computed Tomography for Non-destructive Testing and Materials Characterization. Advances in Computer Vision and Pattern Recognition, 2015, , 227-250.	0.9	12
44	MetaTracts - A method for robust extraction and visualization of carbon fiber bundles in fiber reinforced composites. , 2015, , .		11
45	PorosityAnalyzer: Visual analysis and evaluation of segmentation pipelines to determine the porosity in fiber-reinforced polymers. , 2016, , .		11
46	Non-Destructive Testing of Ceramic Knee Implants Using Micro-Computed Tomography. Journal of Arthroplasty, 2019, 34, 2111-2117.	1.5	11
47	Case Study of Empirical Beam Hardening Correction Methods for Dimensional X-ray Computed Tomography Using a Dedicated Multi-material Reference Standard. Journal of Nondestructive Evaluation, 2019, 38, 1.	1.1	11
48	Investigations on possibilities of inline inspection of high aspect ratio microstructures. Microsystem Technologies, 2006, 13, 319-325.	1.2	10
49	Fuzzy feature tracking: Visual analysis of industrial 4D-XCT data. Computers and Graphics, 2015, 53, 177-184.	1.4	10
50	Stress relaxation behaviour of glass fibre reinforced thermoplastic composites and its application to the design of interrupted in situ tensile tests for investigations by X-ray computed tomography. Polymer Testing, 2022, 109, 107551.	2.3	10
51	UV-Vis absorption of thin electrochemical carbon layers on poly(tetrafluoroethylene-co-hexafluoropropene). Synthetic Metals, 1994, 63, 147-152.	2.1	9
52	Processing, Analysis and Visualization of CT Data. , 2018, , 99-142.		9
53	X-Ray Tomography. , 2018, , 1-72.		8
54	Resonance raman scattering from spincoated and langmuirblodgett poly(3-alkylthiophene) films. Synthetic Metals, 1993, 55, 558-563.	2.1	7

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55	In situ spectroscopic investigation of the doping process in poly(3-octylthiophene). Synthetic Metals, 1993, 58, 257-265.	2.1	6
56	Characterization of buried Kâ€fulleride layers formed by ion implantation. Journal of Applied Physics, 1995, 77, 1029-1033.	1.1	6
57	Raman Spectroscopy of Conjugated Carbon Systems: Polymers, Carbynes and Fullerenes. Materials Science Forum, 1995, 191, 161-170.	0.3	6
58	Non-destructive characterisation of out-of-plane fibre waviness in carbon fibre reinforced polymers by X-ray dark-field radiography. Nondestructive Testing and Evaluation, 2022, 37, 497-507.	1.1	6
59	Ion Implantation in Fullerenes. Fullerenes, Nanotubes, and Carbon Nanostructures, 1996, 4, 179-200.	0.6	5
60	Pulsed thermography of CFC monoblock divertor components. Fusion Engineering and Design, 2009, 84, 1867-1870.	1.0	5
61	Characterisation of Anisotropic Fibre Orientation in Composites by Means of X-Ray Grating Interferometry Computed Tomography. Materials Science Forum, 2015, 825-826, 868-875.	0.3	5
62	Interactive Exploration and Visualization Using MetaTracts extracted from Carbon Fiber Reinforced Composites. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1988-2002.	2.9	5
63	X-Ray Tomography. , 2019, , 1095-1166.		5
64	Quantification of surface-near porosity in additively manufactured aluminum brackets using X-ray microcomputed tomography. , 2021, , .		5
65	Buried K-Fullerides by Ion Implantation. Springer Series in Solid-state Sciences, 1993, , 52-55.	0.3	5
66	NanoXCT: development of a laboratory nano-CT system. Proceedings of SPIE, 2014, , .	0.8	4
67	Consideration of Accuracy of Quantitative X-Ray CT Analyses for Short-Glass-Fibre-Reinforced Polymers. Materials Science Forum, 0, 825-826, 907-913.	0.3	4
68	IN-SITU COMPRESSION TEST OF ARTIFICIAL BONE FOAMS IN CONTROLLED ENVIRONMENT USING X-RAY MICRO-COMPUTED TOMOGRAPHY. Acta Polytechnica CTU Proceedings, 2019, 25, 48-51.	0.3	4
69	Analysis and comparison of algorithms for the tomographic reconstruction of curved fibres. Nondestructive Testing and Evaluation, 2020, 35, 328-341.	1.1	4
70	Raman and Infrared Spectroscopy. Physics and Chemistry of Materials With Low-dimensional Structures, 1999, , 343-356.	1.0	4
71	Metal Artifacts in Attenuation and Phase Contrast X-Ray Microcomputed Tomography: A Comparative Study. Experimental Mechanics, 2022, 62, 837-847.	1.1	4
72	Cross-virtuality analysis of rich X-ray computed tomography data for materials science applications. Nondestructive Testing and Evaluation, 2022, 37, 566-581.	1.1	4

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73	Electrical activation and defects in silicon-implanted and rapidly thermal-annealed gallium arsenide. Nuclear Instruments & Methods in Physics Research B, 1991, 59-60, 1081-1085.	0.6	3
74	Detection of Non-Metallic Inclusions in Quenched and Tempered Steel Bars by XCT and after Fatigue Life Testing. Steel Research International, 2016, 87, 386-393.	1.0	3
75	Visual classification of braided and woven fiber bundles in X-ray computed tomography scanned carbon fiber reinforced polymer specimens. Case Studies in Nondestructive Testing and Evaluation, 2016, 6, 39-46.	1.7	3
76	A Visual Tool for the Analysis of Algorithms for Tomographic Fiber Reconstruction in Materials Science. Computer Graphics Forum, 2019, 38, 273-283.	1.8	3
77	Investigation of opening eye defects and effects of different ripening profiles on eye structure in semi-hard cheese using X-ray micro-computed tomography. Food Structure, 2021, 28, 100190.	2.3	3
78	Thickness accuracy of virtually designed patientâ€specific implants for large neurocranial defects. Journal of Anatomy, 2021, 239, 755-770.	0.9	3
79	Inspection of fiber waviness in carbon fiber laminates by Talbot-Lau X-ray grating interferometry. , 2021, , .		3
80	Center Line Segregation in Twin-Roll Cast AZ31 Magnesium Alloy. Acta Physica Polonica A, 2018, 134, 774-778.	0.2	3
81	Quantitative investigation of local strain and defect formation in short glass fibre reinforced polymers using X-ray computed tomography. Nondestructive Testing and Evaluation, 2022, 37, 582-600.	1.1	3
82	Design and manufacturing aspects of a vaginal speculum of antiquity, as investigated by computer tomographies. Journal of Archaeological Science, 2008, 35, 633-642.	1.2	2
83	Visual analysis of void and reinforcement characteristics in X-ray computed tomography dataset series of fiber-reinforced polymers. IOP Conference Series: Materials Science and Engineering, 2018, 406, 012014.	0.3	2
84	Challenges for Grating Interferometer X-ray Computed Tomography for Practical Applications In Industry. Insight: Non-Destructive Testing and Condition Monitoring, 2019, 61, 149-152.	0.3	2
85	Probability of detection applied to X-ray inspection using numerical simulations. Nondestructive Testing and Evaluation, 2022, 37, 536-551.	1.1	2
86	Hydrogen content of C60 fullerenes, measured by elastic recoil detection. Surface and Interface Analysis, 1994, 22, 568-571.	0.8	1
87	<title>Spectroscopic study of carbon nanotubes</title>. , 1994, 2284, 33.		1
88	Multiscale segmentation method for small inclusion detection in 3D industrial computed tomography. , 2007, , .		1
89	Influence of rheocasting and rare earth metals on the 3D-microstructure of ZK60 Mg-alloy measured by multiscale X-ray computed tomography. Materials Characterization, 2021, 174, 110996.	1.9	1
90	Kirkendall Effect in Twin-Roll Cast AA 3003 Aluminum Alloy. Crystals, 2022, 12, 607.	1.0	1

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91	High-resolution X-ray computed tomography simulations of synthetically-generated volume porosity in continuous carbon fibre-reinforced polymer samples. Nondestructive Testing and Evaluation, 2022, 37, 645-665.	1.1	1
92	Formation of air stable buried K-fulleride layers by ion implantation. Synthetic Metals, 1995, 70, 1469-1470.	2.1	0
93	EPR Studies of Cr3+ and Fe3+ in Host Crystals with Langbeinite Structure. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1996, 51, 1123-1133.	0.7	0
94	X-ray Microtomography: Characterisation of Structures and Defect Analysis. Advanced Structured Materials, 2011, , 119-149.	0.3	0
95	X-Ray Tomography. , 2020, , 1-73.		0
96	Extreme Sparse X-ray Computed Laminography Via Convolutional Neural Networks. , 2020, , .		0
97	Simulation-based optimization of microcomputed tomography inspection parameters for topology-optimized aerospace brackets. , 2022, , .		0
98	In-situ characterization of additively manufactured continuous fiber reinforced tensile test specimens by X-ray computed tomography. , 2022, , .		0
99	Segmentation of multiple features in carbon fiber reinforced polymers using a convolutional neural network. , 2022, , .		0