

Christian U Grosse

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

2,806
citations

218677

26
h-index

182427

51
g-index

91
all docs

91
docs citations

91
times ranked

2168
citing authors

#	ARTICLE	IF	CITATIONS
1	AE in Biological Materials. Springer Tracts in Civil Engineering, 2022, , 583-619.	0.5	3
2	AE Applied to Fresh Concrete. Springer Tracts in Civil Engineering, 2022, , 339-359.	0.5	2
3	Source Localization. Springer Tracts in Civil Engineering, 2022, , 117-171.	0.5	1
4	Signal-Based AE Analysis. Springer Tracts in Civil Engineering, 2022, , 73-116.	0.5	1
5	Fiber-Optic Photoacoustic Generator Realized by Inkjet-Printing of CNT-PDMS Composites on Fiber End Faces. Macromolecular Materials and Engineering, 2021, 306, 2000563.	3.6	9
6	Delamination detection on a concrete bridge deck using impact echo scanning. Structural Concrete, 2021, 22, 806-812.	3.1	12
7	Fully Inkjet-Printed Carbon Nanotube-PDMS-Based Strain Sensor: Temperature Response, Compressive and Tensile Bending Properties, and Fatigue Investigations. IEEE Access, 2021, 9, 72207-72216.	4.2	8
8	Influence of fiber alignment on pseudoductility and microcracking in a cementitious carbon fiber composite material. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	3.1	12
9	Selection and evaluation of spherical acquisition trajectories for industrial computed tomography. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, .	2.1	4
10	Evaluation of the Behavior of Carbon Short Fiber Reinforced Concrete (CSFRC) Based on a Multi-Sensory Experimental Investigation and a Numerical Multiscale Approach. Materials, 2021, 14, 7005.	2.9	5
11	Bacterial Additives Improve the Water Resistance of Mortar. ACS Sustainable Chemistry and Engineering, 2020, 8, 5704-5715.	6.7	13
12	Ultrasonic Techniques for Determination and Monitoring Various Properties of Cementitious Materials at Early Ages. Springer Tracts in Civil Engineering, 2020, , 23-68.	0.5	3
13	Acoustic Emission Characterization of Fresh Cement-Based Materials. Springer Tracts in Civil Engineering, 2020, , 1-22.	0.5	1
14	Wireless High-Resolution Acceleration Measurements for Structural Health Monitoring of Wind Turbine Towers. Data-Enabled Discovery and Applications, 2019, 3, 1.	1.2	16
15	Local Acoustic Resonance Spectroscopy. , 2019, , 271-294.		0
16	Experimental impact cratering: A summary of the major results of the MEMIN research unit. Meteoritics and Planetary Science, 2018, 53, 1543-1568.	1.6	25
17	Optical excitation thermography for twill/plain weaves and stitched fabric dry carbon fibre preform inspection. Composites Part A: Applied Science and Manufacturing, 2018, 107, 282-293.	7.6	40
18	Local Acoustic Resonance Spectroscopy. , 2018, , 1-24.		4

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19	Validation of Self-Healing Properties of Construction Materials through Nondestructive and Minimal Invasive Testing. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800179.	3.7	26
20	Nondestructive imaging of hypervelocity impact-induced damage zones beneath laboratory-created craters by means of ultrasound travel-time tomography. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1756-1772.	1.6	5
21	A novel optical air-coupled ultrasound NDE sensing technique compared with infrared thermographic NDT on impacted composite materials. , 2018, , .		4
22	Effect of freeze-thaw damage on chloride ingress into concrete. <i>Materials and Structures/Materiaux Et Constructions</i> , 2017, 50, 1.	3.1	53
23	Experimental investigation of wave dispersion in hardened concrete and reference liquid media. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
24	Concrete wave dispersion interpretation through Mindlin's strain gradient elastic theory. <i>Journal of the Acoustical Society of America</i> , 2017, 142, EL89-EL94.	1.1	8
25	Image-Based Histological Evaluation of Scaffold-Free 3D Osteoblast Cultures. <i>Journal of Functional Morphology and Kinesiology</i> , 2017, 2, 42.	2.4	1
26	Wireless monitoring of structural components of wind turbines including tower and foundations. <i>Journal of Physics: Conference Series</i> , 2016, 753, 072033.	0.4	1
27	Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar. <i>Advanced Materials</i> , 2016, 28, 8138-8143.	21.0	38
28	Biofilms: Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar (<i>Adv. Mater.</i> 37/2016). <i>Advanced Materials</i> , 2016, 28, 8315-8315.	21.0	0
29	Concrete Structures. <i>RILEM State-of-the-Art Reports</i> , 2016, , 5-25.	0.7	0
30	Time reverse modeling of acoustic emissions in a reinforced concrete beam. <i>Ultrasonics</i> , 2016, 65, 96-104.	3.9	46
31	Zerstörungsfreie Prüfung: Notwendiges Älter oder Chance für die Bauwirtschaft?. <i>Beton- Und Stahlbetonbau</i> , 2015, 110, 499-500.	0.4	0
32	Quantitative impact characterization of aeronautical CFRP materials with non-destructive testing methods. , 2015, , .		4
33	MEMS Microphone Array Sensor for Air-Coupled Impact-Echo. <i>Sensors</i> , 2015, 15, 14932-14945.	3.8	24
34	Observing the setting and hardening of cementitious materials by X-ray dark-field radiography. <i>Cement and Concrete Research</i> , 2015, 74, 19-25.	11.0	28
35	Comparative Study of State of the Art Nondestructive Testing Methods with the Local Acoustic Resonance Spectroscopy to Detect Damages in GFRP. <i>Journal of Nondestructive Evaluation</i> , 2015, 34, 1.	2.4	5
36	Novel failure diagnostic methods for smart card systems. , 2014, , .		0

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37	Local Acoustic Resonance Spectroscopy (LARS) for Glass Fiber-Reinforced Polymer Applications. Journal of Nondestructive Evaluation, 2014, 33, 23-33.	2.4	8
38	Anwendungen der Schallemissionsanalyse an Betonbauwerken. Bautechnik, 2013, 90, 721-731.	0.1	12
39	Application of nondestructive testing methods to study the damage zone underneath impact craters of MEMIN laboratory experiments. Meteoritics and Planetary Science, 2013, 48, 87-98.	1.6	13
40	Measurement systems to detect the time-dependant development of concrete spalling under fire exposure. MATEC Web of Conferences, 2013, 6, 03006.	0.2	2
41	Acoustic emission analysis for the quantification of autonomous crack healing in concrete. Construction and Building Materials, 2012, 28, 333-341.	7.2	133
42	Leveraging real-time hydrologic data for the control of large-scale water distribution systems in the Sierra Nevada. , 2011, , .		1
43	Relating ultrasonic measurements on fresh concrete with mineral additions to the microstructure development simulated by Cemhyd3D. Cement and Concrete Composites, 2011, 33, 680-693.	10.7	19
44	Monitoring the effect of admixtures on early-age concrete behaviour by ultrasonic, calorimetric, strength and rheometer measurements. Magazine of Concrete Research, 2011, 63, 707-721.	2.0	14
45	Recommendation of RILEM TC 212-ACD: acoustic emission and related NDE techniques for crack detection and damage evaluation in concrete*. Materials and Structures/Materiaux Et Constructions, 2010, 43, 1183-1186.	3.1	101
46	Beamforming array techniques for acoustic emission monitoring of large concrete structures. Journal of Sound and Vibration, 2010, 329, 2384-2394.	3.9	115
47	Acoustic emission (AE) evaluation of reinforced concrete structures. , 2010, , 185-214.		9
48	Initial development of wireless acoustic emission sensor Motes for civil infrastructure state monitoring. Smart Structures and Systems, 2010, 6, 197-209.	1.9	77
49	Ereignisbasierte Messwerterfassung in drahtlosen Sensornetzwerken für die Strukturüberwachung Event-based Data Acquisition in Wireless Sensor Networks for Structural Health Monitoring. TM Technisches Messen, 2009, 76, 568-577.	0.7	1
50	Measuring the change in ultrasonic p-wave energy transmitted in fresh mortar with additives to monitor the setting. Cement and Concrete Research, 2009, 39, 868-875.	11.0	63
51	Monitoring fresh concrete by ultrasonic transmission measurements: Exploratory multi-way analysis of the spectral information. Chemometrics and Intelligent Laboratory Systems, 2009, 95, 64-73.	3.5	21
52	Comparative Performance Tests and Validation of NDT Methods for Concrete Testing. Journal of Nondestructive Evaluation, 2008, 27, 59-65.	2.4	29
53	Monitoring the setting of concrete containing blast-furnace slag by measuring the ultrasonic p-wave velocity. Cement and Concrete Research, 2008, 38, 1169-1176.	11.0	156
54	Acoustic emission beamforming for enhanced damage detection. , 2008, , .		5

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55	A hybrid wireless sensor network for acoustic emission testing in SHM. , 2008, , .		14
56	Signal-Based AE Analysis. , 2008, , 53-99.		17
57	Source Localization. , 2008, , 101-147.		8
58	Localization and Mode Determination of Fracture Events by Acoustic Emission. , 2008, , 41-66.		2
59	Wireless Sensing and Acoustic Emission Array Techniques. , 2008, , 367-381.		1
60	Integrating broad-band high-fidelity acoustic emission sensors and array processing to study drying shrinkage cracking in concrete. , 2007, , .		3
61	Advances in Construction Materials 2007. , 2007, , .		20
62	Structural health monitoring with wireless sensors to enhance sustainability in structural engineering. IABSE Symposium Report, 2007, , .	0.0	4
63	Sensing methods in civil engineering for an efficient construction management. , 2007, , 549-561.		3
64	Brief Review of the Scientific Work of Prof. Dr.-Ing. Hans W. Reinhardt. , 2007, , 1-13.		0
65	Bridge Monitoring using Multihop Wireless Sensor Networks. , 2006, , 21.		3
66	Quantitative evaluation of fracture processes in concrete using signal-based acoustic emission techniques. Cement and Concrete Composites, 2006, 28, 330-336.	10.7	109
67	Condition monitoring of concrete structures using wireless sensor networks and MEMS. , 2006, 6174, 407.		17
68	Stress Drop and Stress Redistribution in Concrete Quantified Over Time by the b-value Analysis. Structural Health Monitoring, 2006, 5, 69-81.	7.5	125
69	Ultrasound monitoring of the influence of different accelerating admixtures and cement types for shotcrete on setting and hardening behaviour. Cement and Concrete Research, 2005, 35, 2087-2094.	11.0	102
70	Strategies for reliable automatic onset time picking of acoustic emissions and of ultrasound signals in concrete. Ultrasonics, 2005, 43, 538-546.	3.9	252
71	Wireless Structural Health Monitoring Using MEMS. Key Engineering Materials, 2005, 293-294, 625-634.	0.4	24
72	Comparison of ultrasonic wave transmission and reflection measurements with P- and S-waves on early age mortar and concrete. Materials and Structures/Materiaux Et Constructions, 2005, 38, 729-738.	3.1	51

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73	Continuous monitoring of setting and hardening of mortar and concrete. Construction and Building Materials, 2004, 18, 145-154.	7.2	225
74	Improvements of AE technique using wavelet algorithms, coherence functions and automatic data analysis. Construction and Building Materials, 2004, 18, 203-213.	7.2	62
75	Evaluation of mode I failure of concrete in a splitting test using acoustic emission technique. International Journal of Fracture, 2003, 124, 139-152.	2.2	29
76	Improvements of AE technique using wavelet algorithms, coherence functions and automatic data analysis. Construction and Building Materials, 2003, 18, 203-203.	7.2	1
77	Signal-Based Acoustic Emission Techniques in Civil Engineering. Journal of Materials in Civil Engineering, 2003, 15, 274-279.	2.9	81
78	Concrete Prestressed with Textile Fabric. Journal of Advanced Concrete Technology, 2003, 1, 231-239.	1.8	66
79	Evolution of Percolating Force Chains in Compressed Granular Media. Physical Review Letters, 2002, 89, 205501.	7.8	71
80	Wave Propagation in Heterogeneous Media. Part 1: Effective Velocities in Fractured Media. , 2002, , 469-475.		0
81	Ultrasonic monitoring of setting and hardening of cement mortar – A new device. Materials and Structures/Materiaux Et Constructions, 2000, 33, 581-583.	3.1	71
82	Localization and classification of fracture types in concrete with quantitative acoustic emission measurement techniques. NDT and E International, 1997, 30, 223-230.	3.7	119
83	Damage accumulation on deformed steel bar to concrete interaction detected by acoustic emission technique. Magazine of Concrete Research, 1996, 48, 311-320.	2.0	24
84	Acoustic Emission Data From Pull-Out Tests of Reinforced Concrete Analysed with Respect to Passive Us-Tomography. Acoustical Imaging, 1995, , 635-647.	0.2	3
85	Large-scale variation in lithospheric structure along and across the Kenya rift. Nature, 1991, 354, 223-227.	27.8	91
86	Monitoring of Wind Turbine Structures using Stationary Sensors and Short-term Optical Techniques. , 0, , .		4
87	Combination of inspection and monitoring techniques for the detection of fractures in concrete with self-healing properties. , 0, , .		2
88	Wireless Structural Health Monitoring Using MEMS. Key Engineering Materials, 0, , 625-634.	0.4	3