John Popovics

List of Publications by Year
in descending order

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63	1,375	361296	345118
papers	citations	20 h-index	36 g-index

63	63	63	856
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In situ detection and characterization of alkali-silica reaction damage in concrete using contactless ultrasonic wavefield imaging. Cement and Concrete Composites, 2022, 133, 104661.	4.6	4
2	Air-coupled ultrasonic diffuse-wave techniques to evaluate distributed cracking damage in concrete. Ultrasonics, 2022, 125, 106800.	2.1	9
3	Air-coupled ultrasonic assessment of concrete rail ties. NDT and E International, 2021, 123, 102511.	1.7	5
4	Torsional vibration technique for the acoustoelastic characterization of concrete. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	4
5	Development of an MEMS ultrasonic microphone array system and its application to compressed wavefield imaging of concrete. Smart Materials and Structures, 2020, 29, 105011.	1.8	10
6	Contactless Ultrasonic Wavefield Imaging to Visualize Near-Surface Damage in Concrete Elements. Applied Sciences (Switzerland), 2019, 9, 3005.	1.3	7
7	Extracting non-propagating oscillatory fields in concrete to detect distributed cracking. Journal of the Acoustical Society of America, 2019, 146, 2655-2670.	0.5	9
8	Effectiveness of diffuse ultrasound for evaluation of micro-cracking damage in concrete. Cement and Concrete Research, 2019, 124, 105862.	4.6	35
9	Direct imaging of moisture effects during slow dynamic nonlinearity. Applied Physics Letters, 2019, 114, .	1.5	22
10	Cement-Based Material Characterization Using Nonlinear Single-Impact Resonant Acoustic Spectroscopy (NSIRAS). , 2019, , 487-508.		2
11	10.1063/1.5063904.1. , 2019, , .		0
12	Monitoring of the Cowpea Bruchid, Callosobruchus maculatus (Coleoptera: Bruchidae), Feeding Activity in Cowpea Seeds: Advances in Sensing Technologies Reveals New Insights. Journal of Economic Entomology, 2018, 111, 1469-1475.	0.8	7
13	Surface-Wave Based Model for Estimation of Discontinuity Depth in Concrete. Sensors, 2018, 18, 2793.	2.1	9
14	Efforts on optical scale imaging for physically observing slow dynamics. Proceedings of Meetings on Acoustics, 2018, , .	0.3	0
15	Using ultrasonic wave reflection to monitor false set of cement paste. Cement and Concrete Composites, 2017, 84, 10-18.	4.6	13
16	The stress-induced surface wave velocity variations in concrete. AIP Conference Proceedings, 2017, , .	0.3	5
17	Characterization of steel-concrete interface bonding conditions using attenuation characteristics of guided waves. Cement and Concrete Composites, 2017, 83, 111-124.	4.6	28
18	A contactless ultrasonic surface wave approach to characterize distributed cracking damage in concrete. Ultrasonics, 2017, 75, 46-57.	2.1	36

#	Article	IF	Citations
19	Ultrasonic analysis modifications for imaging of concrete infrastructure. , 2017, , .		0
20	Development of an automated contactless ultrasonic scanning measurement system for wavefield imaging of concrete elements. , 2017, , .		5
21	Notice of Removal: Contactless ultrasonic wavefield imaging of concrete elements using an automated scanning MEMS ultrasonic sensor array. , 2017, , .		0
22	Integrated visualization for reinforced concrete using ultrasonic tomography and image-based 3-D reconstruction. Construction and Building Materials, 2016, 123, 384-393.	3.2	22
23	Comparison of Ultrasonic Imaging Techniques for Full-Scale Reinforced Concrete. Transportation Research Record, 2016, 2592, 126-135.	1.0	14
24	Air-coupled ultrasonic tomography of solids: 2 Application to concrete elements. Smart Structures and Systems, 2016, 17, 31-43.	1.9	2
25	Monitoring accelerated carbonation on standard Portland cement mortar by nonlinear resonance acoustic test. , 2015, , .		1
26	Review of Ultrasonic Wave Reflection Applied to Early-Age Concrete and Cementitious Materials. Journal of Nondestructive Evaluation, 2015, 34, 1.	1.1	20
27	NDE application of ultrasonic tomography to a full-scale concrete structure. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 1076-1085.	1.7	70
28	Set Time Measurements of Self-Compacting Pastes and Concretes Using Ultrasonic Wave Reflection. Journal of Materials in Civil Engineering, 2015, 27, .	1.3	7
29	Application of Micro-Electro-Mechanical Sensors Contactless NDT of Concrete Structures. Sensors, 2015, 15, 9078-9096.	2.1	31
30	Practical Visualization of Local Vibration Data Collected over Large Concrete Elements. Computer-Aided Civil and Infrastructure Engineering, 2015, 30, 68-81.	6.3	7
31	Effect of carbonation on the linear and nonlinear dynamic properties of cement-based materials. Optical Engineering, 2015, 55, 011004.	0.5	8
32	Application of contactless ultrasound toward automated inspection of concrete structures. Automation in Construction, 2015, 58, 155-164.	4.8	25
33	Application of semi-coupled ultrasonic pulse velocity to image concrete structures using tomographic algorithms. , 2014, , .		1
34	Non-classical nonlinear feature extraction from standard resonance vibration data for damage detection. Journal of the Acoustical Society of America, 2014, 135, EL82-EL87.	0.5	33
35	Effective presentation of impact-echo data for bridge deck NDE. , 2014, , .		0
36	Application of ultrasonic P-wave reflection to measure development of early-age cement-paste properties. Materials and Structures/Materiaux Et Constructions, 2013, 46, 987-997.	1.3	16

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37	Analysis of vibration for regions above rectangular delamination defects in solids. Journal of Sound and Vibration, 2013, 332, 1766-1776.	2.1	25
38	Improved Interpretation of Vibration Responses from Concrete Delamination Defects Using Air-Coupled Impact Resonance Tests. Journal of Engineering Mechanics - ASCE, 2013, 139, 315-324.	1.6	18
39	Comparison of NDT Methods for Assessment of a Concrete Bridge Deck. Journal of Engineering Mechanics - ASCE, 2013, 139, 305-314.	1.6	78
40	Cost Effective Air-Coupled Impact-Echo Sensing for Rapid Detection of Delamination Damage in Concrete Structures. Advances in Structural Engineering, 2012, 15, 887-895.	1.2	11
41	Quantitative evaluation of contactless impact echo for non-destructive assessment of void detection within tendon ducts. Construction and Building Materials, 2012, 37, 885-892.	3.2	21
42	Monitoring active corrosion of metals in natural environments with magnetometry. Corrosion Science, 2012, 63, 1-4.	3.0	8
43	Nondestructive Bridge Deck Testing with Air-Coupled Impact-Echo and Infrared Thermography. Journal of Bridge Engineering, 2012, 17, 928-939.	1.4	89
44	Corrosion monitoring of metals. European Journal of Environmental and Civil Engineering, 2011, 15, 633-647.	1.0	2
45	Flocculation and sedimentation in suspensions using ultrasonic wave reflection. Journal of the Acoustical Society of America, 2011, 129, 2944-2951.	0.5	17
46	Using ultrasonic wave reflection to measure solution properties. Ultrasonics Sonochemistry, 2010, 17, 266-272.	3.8	19
47	EVALUATION OF MASW DATA TESTING CONFIGURATION FOR ANALYSIS OF ASPHALT PAVEMENTS. , 2009, , .		0
48	PASSIVE AND ACTIVE MAGNETIC SENSING TO CHARACTERIZE CORROSION OF METALS. , 2009, , .		0
49	Nondestructive Evaluation of Crack Depth in Concrete Using PCA-compressed Wave Transmission Function and Neural Networks. Experimental Mechanics, 2008, 48, 225-231.	1.1	15
50	Improved Rayleigh Wave Velocity Measurement for Nondestructive Early-Age Concrete Monitoring. Research in Nondestructive Evaluation, 2007, 18, 45-68.	0.5	47
51	Imaging Concrete Structures Using Air-Coupled Impact-Echo. Journal of Engineering Mechanics - ASCE, 2007, 133, 628-640.	1.6	134
52	Analytical study of excitation and measurement of fluid-solid interface waves. Geophysical Research Letters, 2006, 33, .	1.5	11
53	Air-Coupled Impact-Echo Method for NDT of Concrete. AIP Conference Proceedings, 2006, , .	0.3	4
54	Non-contact imaging for surface-opening cracks in concrete with air-coupled sensors. Materials and Structures/Materiaux Et Constructions, 2005, 38, 801-806.	1.3	33

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55	The Use of Surface Waves to Estimate In-Place Strength of Concrete. Journal of Advanced Concrete Technology, 2005, 3, 355-362.	0.8	8
56	Longitudinal Cracking Distress on Continuously Reinforced Concrete Pavements in Illinois. Journal of Performance of Constructed Facilities, 2005, 19, 331-338.	1.0	13
57	Lamb Wave Basis for Impact-Echo Method Analysis. Journal of Engineering Mechanics - ASCE, 2005, 131, 438-443.	1.6	185
58	Non-Destructive Evaluation for Civil Engineering Structures and Materials. AIP Conference Proceedings, 2004, , .	0.3	4
59	Analytical Solution of Leaky Rayleigh Waves at the Interface between Elastic Solids and Ideal Fluids. AIP Conference Proceedings, 2004, , .	0.3	0
60	NDE techniques for concrete and masonry structures. Structural Control and Health Monitoring, 2003, 5, 49-59.	0.7	31
61	Measurement of surface wave transmission coefficient across surface-breaking cracks and notches in concrete. Journal of the Acoustical Society of America, 2003, 113, 717-725.	0.5	59
62	Crack Depth Measurement in Concrete Using Surface Wave Transmission. AIP Conference Proceedings, 2003, , .	0.3	2
63	One-Sided Stress Wave Velocity Measurement in Concrete. Journal of Engineering Mechanics - ASCE, 1998, 124, 1346-1353.	1.6	74