

Pierre Marechal

List of Publications by Year in descending order

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46
papers

414
citations

840776

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794594

19
g-index

47
all docs

47
docs citations

47
times ranked

373
citing authors

#	ARTICLE	IF	CITATIONS
1	Generalized homogenization model of piezoelectric materials for ultrasonic transducer applications. Journal of Composite Materials, 2022, 56, 713-726.	2.4	2
2	On the Simulation of the Influence of Defects on Immersed Plane Periodic Multilayer Viscoelastic Media. Open Journal of Acoustics, 2021, 11, 17-30.	0.3	0
3	Homogenized electromechanical coefficients and effective parameters of 1â€³ piezocomposites for ultrasound imaging transducers. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 408, 127492.	2.1	5
4	Scattering coefficients for a sphere in a visco-acoustic medium for arbitrary partial wave order. Wave Motion, 2020, 97, 102589.	2.0	1
5	Ultrasound evaluation of the mechanical properties as an investigation tool for the wood-polymer composites including olive wood flour. Mechanics of Materials, 2020, 148, 103445.	3.2	21
6	Effective dynamic properties of random complex media with spherical particles. Journal of the Acoustical Society of America, 2019, 145, 3727-3740.	1.1	3
7	Piezocomposite transducer design and performance for high resolution ultrasound imaging transducers. International Journal of Computational Materials Science and Engineering, 2019, 08, 1950013.	0.7	4
8	Effect of Injection Direction in Elaboration of Polypropylene Reinforced with Olive Wood Flour on Ultrasonic and Morphological Properties. Applied Condition Monitoring, 2019, , 292-299.	0.4	0
9	High temperature polymerization monitoring of an epoxy resin using ultrasound. IOP Conference Series: Materials Science and Engineering, 2018, 369, 012010.	0.6	1
10	The coherent shear wave in suspensions. Journal of Physics: Conference Series, 2018, 1017, 012003.	0.4	0
11	Thermal aging characterization of composite plates and honeycomb sandwiches by electromechanical measurement. Journal of the Acoustical Society of America, 2017, 142, 3691-3702.	1.1	5
12	Ultrasound monitoring of the cure kinetics of an epoxy resin: Identification, frequency and temperature dependence. Polymer Testing, 2016, 56, 156-166.	4.8	40
13	Real-time polymerization monitoring of a thermosetting resin around its glassy transition temperature. Proceedings of Meetings on Acoustics, 2016, , .	0.3	0
14	Study of an Hybridization Gap in a One Dimensional Piezoelectric Phononic Crystal. Physics Procedia, 2015, 70, 279-282.	1.2	3
15	Curing and Post-curing Viscoelastic Monitoring of an Epoxy Resin. Physics Procedia, 2015, 70, 106-109.	1.2	5
16	Theoretical and experimental analysis of a piezoelectric plate connected to a negative capacitance at MHz frequencies. Smart Materials and Structures, 2015, 24, 115032.	3.5	5
17	Monitoring of an ascending air bubble in a viscous fluid/fiber matrix medium using a phased array transducer. European Journal of Mechanics, B/Fluids, 2015, 54, 45-52.	2.5	5
18	Adhesion characterization and defect sizing of sandwich honeycomb composites. Ultrasonics, 2015, 62, 103-111.	3.9	11

#	ARTICLE	IF	CITATIONS
19	Analysis of a Phononic Crystal Constituted of Piezoelectric Layers Using Electrical Impedance Measurement. <i>Physics Procedia</i> , 2015, 70, 283-286.	1.2	9
20	Tunability of the band structure of a piezoelectric phononic crystal using electrical negative capacitance. , 2015, , .		3
21	Ultrasonic broadband characterization of a viscous liquid: Methods and perturbation factors. <i>Ultrasonics</i> , 2015, 56, 308-317.	3.9	12
22	Viscoelasticity Effect on a Periodic Plane Medium Immersed in Water. <i>Acta Acustica United With Acustica</i> , 2014, 100, 1036-1043.	0.8	8
23	Active control of a piezoelectric Phononic Crystal using electrical impedance. , 2014, , .		2
24	Study of the resonances of periodic plane media immersed in water: Theory and experiment. <i>Ultrasonics</i> , 2013, 53, 642-647.	3.9	7
25	Holes Effects in Plane Periodic Multilayered Viscoelastic Media. <i>Open Journal of Acoustics</i> , 2013, 03, 80-87.	0.3	3
26	Ultrasonic characterization of a fluid layer using a broadband transducer. <i>Ultrasonics</i> , 2012, 52, 427-434.	3.9	23
27	Ultrasound monitoring of bubble size and velocity in a fluid model using phased array transducer. <i>NDT and E International</i> , 2011, 44, 621-627.	3.7	11
28	Fundamental constraints on the performance of broadband ultrasonic matching structures and absorbers. <i>Journal of the Acoustical Society of America</i> , 2009, 125, 1995-2005.	1.1	16
29	Study of plane periodic multilayered viscoelastic media: Experiment and simulation. , 2009, , .		7
30	Toward more efficient matching layers for piezoelectric transducers. , 2009, , .		1
31	Modeling of a high frequency ultrasonic transducer using periodic structures. <i>Ultrasonics</i> , 2008, 48, 141-149.	3.9	20
32	Electromechanical Properties of Piezoelectric Integrated Structures on Porous Substrates. <i>Ferroelectrics</i> , 2008, 371, 89-97.	0.6	8
33	P1J-5 Performance Comparison of Screen-Printed Piezoelectric Structures on Porous PZT and Alumina Substrates. , 2007, , .		0
34	Effect of Radial Displacement of Lens on Response of Focused Ultrasonic Transducer. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 3077-3085.	1.5	10
35	Lens-focused transducer modeling using an extended KLM model. <i>Ultrasonics</i> , 2007, 46, 155-167.	3.9	35
36	Ultrasonic transducer based on highly textured PMN-PT piezoelectric ceramic. <i>Journal of Electroceramics</i> , 2007, 19, 375-381.	2.0	13

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37	High-frequency transducers based on integrated piezoelectric thick films for medical imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 1524-1533.	3.0	62
38	Piezoelectric textured ceramics: Effective properties and application to ultrasonic transducers. Ultrasonics, 2006, 44, e621-e626.	3.9	25
39	P2I-3 Second Harmonic Generation Through a Plate Immersed in Water: Theory and Experiment. , 2006, , .		0
40	5C-4 Optimization of an Integrated Structure Including a Screen-Printed Piezoelectric Thick Film for High Frequency Transducers. , 2006, , .		0
41	P3P-7 Modeling of Lens Focused Piezoelectric Transducer for Medical Imaging. , 2006, , .		3
42	Characterisation of thin layers of parylene at high frequency using PZT thick film resonators. Journal of the European Ceramic Society, 2005, 25, 2985-2989.	5.7	11
43	Time-frequency analysis for surface roughness characterization using backscatter ultrasound. AIP Conference Proceedings, 2002, , .	0.4	1
44	Effect of acoustical properties of a lens on the pulse-echo response of a single element transducer. , 0, , .		8
45	Pseudospectral time-domain method to calculate radiation pattern of lens-focused transducers. , 0, , .		3
46	Combined pseudospectral and finite-difference time-domain methods for ultrasonic transducers modeling. , 0, , .		0