Zine El Abiddine Fellah

List of Publications by Year
in descending order

72	1,462	361413 20	361022 35
papers	citations	h-index	g-index

74	74	74	678
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrasonic wave propagation in human cancellous bone: Application of Biot theory. Journal of the Acoustical Society of America, 2004, 116, 61-73.	1.1	171
2	Transient acoustic wave propagation in rigid porous media: A time-domain approach. Journal of the Acoustical Society of America, 2000, 107, 683-688.	1.1	110
3	Measuring the porosity and the tortuosity of porous materials via reflected waves at oblique incidence. Journal of the Acoustical Society of America, 2003, 113, 2424-2433.	1.1	109
4	Application of fractional calculus to ultrasonic wave propagation in human cancellous bone. Signal Processing, 2006, 86, 2668-2677.	3.7	76
5	Ultrasonic characterization of human cancellous bone using the Biot theory: Inverse problem. Journal of the Acoustical Society of America, 2006, 120, 1816-1824.	1.1	66
6	Direct and inverse scattering of transient acoustic waves by a slab of rigid porous material. Journal of the Acoustical Society of America, 2003, 113, 61-72.	1.1	50
7	Application of the Biot model to ultrasound in bone: Direct problem. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 1508-1515.	3.0	46
8	Determination of transport parameters in air-saturated porous materials via reflected ultrasonic waves. Journal of the Acoustical Society of America, 2003, 114, 2561.	1.1	45
9	Ultrasonic characterization of porous absorbing materials: Inverse problem. Journal of Sound and Vibration, 2007, 302, 746-759.	3.9	41
10	Acoustic backscattering form function of absorbing cylinder targets (L). Journal of the Acoustical Society of America, 2004, 115, 1411-1413.	1.1	37
11	Theory of the acoustic radiation force exerted on a sphere by standing and quasistanding zero-order Bessel beam tweezers of variable half-cone angles. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 2469-2478.	3.0	35
12	Transient ultrasound propagation in porous media using Biot theory and fractional calculus: Application to human cancellous bone. Journal of the Acoustical Society of America, 2013, 133, 1867-1881.	1.1	35
13	Acoustic wave propagation in a macroscopically inhomogeneous porous medium saturated by a fluid. Applied Physics Letters, 2007, 90, 181901.	3.3	32
14	Measuring flow resistivity of porous materials at low frequencies range via acoustic transmitted waves. Journal of the Acoustical Society of America, 2006, 119, 1926-1928.	1.1	31
15	Transient wave propagation in inhomogeneous porous materials: Application of fractional derivatives. Signal Processing, 2006, 86, 2658-2667.	3.7	28
16	Solution in time domain of ultrasonic propagation equation in a porous material. Wave Motion, 2003, 38, 151-163.	2.0	27
17	Non-ambiguous recovery of Biot poroelastic parameters of cellular panels using ultrasonicwaves. Journal of Sound and Vibration, 2011, 330, 1074-1090.	3.9	26
18	Ultrasonic measurement of the porosity and tortuosity of air-saturated random packings of beads. Journal of Applied Physics, 2003, 93, 9352-9359.	2.5	23

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19	Measuring the porosity of porous materials having a rigid frame via reflected waves: A time domain analysis with fractional derivatives. Journal of Applied Physics, 2003, 93, 296-303.	2.5	23
20	Axial acoustic radiation force of progressive cylindrical diverging waves on a rigid and a soft cylinder immersed in an ideal compressible fluid. Ultrasonics, 2011, 51, 523-526.	3.9	22
21	Characterization of porous materials with a rigid frame via reflected waves. Journal of Applied Physics, 2003, 94, 7914.	2.5	19
22	Measuring permeability of porous materials at low frequency range via acoustic transmitted waves. Review of Scientific Instruments, 2007, 78, 114902.	1.3	19
23	Verification of Kramersâ€“Kronig relationship in porous materials having a rigid frame. Journal of Sound and Vibration, 2004, 270, 865-885.	3.9	18
24	Investigating the absolute phase information in acoustic wave resonance scattering. Ultrasonics, 2008, 48, 209-219.	3.9	17
25	Pseudo-Gaussian cylindrical acoustical beam â€“ Axial scattering and radiation force on an elastic cylinder. Journal of Sound and Vibration, 2014, 333, 7326-7332.	3.9	16
26	Measuring static thermal permeability and inertial factor of rigid porous materials (L). Journal of the Acoustical Society of America, 2011, 130, 2627-2630.	1.1	15
27	Influence of dynamic tortuosity and compressibility on the propagation of transient waves in porous media. Wave Motion, 2005, 41, 145-161.	2.0	14
28	Acoustic radiation force on coated cylinders in plane progressive waves. Journal of Sound and Vibration, 2007, 308, 190-200.	3.9	14
29	Simultaneous determination of porosity, tortuosity, viscous and thermal characteristic lengths of rigid porous materials. Journal of Applied Physics, 2013, 114, .	2.5	14
30	Bayesian inference for the ultrasonic characterization of rigid porous materials using reflected waves by the first interface. Journal of the Acoustical Society of America, 2018, 144, 210-221.	1.1	14
31	Amplitude-modulated acoustic radiation force experienced by elastic and viscoelastic spherical shells in progressive waves. Ultrasonics, 2006, 44, 287-296.	3.9	13
32	Recovery of elastic parameters of cellular materials by inversion of vibrational data. Journal of Sound and Vibration, 2008, 313, 525-543.	3.9	12
33	Measuring static viscous permeability of porous absorbing materials. Journal of the Acoustical Society of America, 2014, 135, 3163-3171.	1.1	12
34	Characterization of compressed earth blocks using low frequency guided acoustic waves. Journal of the Acoustical Society of America, 2016, 139, 2551-2560.	1.1	12
35	Propagation of Transient Acoustic Waves in Layered Porous Media: Fractional Equations for the Scattering Operators. Nonlinear Dynamics, 2004, 38, 181-190.	5.2	11
36	Mechanism of the quasi-zero axial acoustic radiation force experienced by elastic and viscoelastic spheres in the field of a quasi-Gaussian beam and particle tweezing. Ultrasonics, 2014, 54, 351-357.	3.9	11

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37	Identification of the mechanical moduli of closed-cell porous foams using transmitted acoustic waves in air and the transfer matrix method. Composite Structures, 2016, 135, 205-216.	5.8	11
38	Acoustical modeling and Bayesian inference for rigid porous media in the low-mid frequency regime. Journal of the Acoustical Society of America, 2018, 144, 3084-3101.	1.1	11
39	Inverse problem in air-saturated porous media via reflected waves. Review of Scientific Instruments, 2003, 74, 2871-2879.	1.3	10
40	Inverse identification of a higher order viscous parameter of rigid porous media in the high frequency domain. Journal of the Acoustical Society of America, 2019, 145, 1629-1639.	1.1	10
41	A time-domain model of transient acoustic wave propagation in double-layered porous media. Journal of the Acoustical Society of America, 2005, 118, 661-670.	1.1	9
42	Transient acoustic wave in self-similar porous material having rigid frame: Low frequency domain. Wave Motion, 2017, 68, 12-21.	2.0	9
43	Synthesis and Mechanical Characterization of Binary and Ternary Intermetallic Alloys Based on Fe-Ti-Al by Resonant Ultrasound Vibrational Methods. Materials, 2018, 11, 746.	2.9	9
44	Determination of object resonances by vibro-acoustography and their associated modes. Ultrasonics, 2004, 42, 537-543.	3.9	8
45	Instantaneous axial force of a high-order Bessel vortex beam of acoustic waves incident upon a rigid movable sphere. Ultrasonics, 2011, 51, 719-724.	3.9	8
46	The inverse problem of acoustic wave scattering by an air-saturated poroelastic cylinder. Journal of the Acoustical Society of America, 2013, 133, 1443-1457.	1.1	8
47	Microstructural and Mechanical Properties of Binary Ti-Rich Feâ€“Ti, Al-Rich Feâ€“Al, and Tiâ€“Al Alloys. Materials, 2019, 12, 433.	2.9	8
48	Transient ultrasonic wave propagation in porous material of non-integer space dimension. Wave Motion, 2017, 72, 276-286.	2.0	7
49	Identification of the mechanical moduli of flexible thermoplastic thin films using reflected ultrasonic waves: Inverse problem. Ultrasonics, 2017, 81, 10-22.	3.9	7
50	Transient Propagation of Spherical Waves in Porous Material: Application of Fractional Calculus. Symmetry, 2022, 14, 233.	2.2	7
51	Acoustics of Fractal Porous Material and Fractional Calculus. Mathematics, 2021, 9, 1774.	2.2	6
52	Investigation of long acoustic waveguides for the very low frequency characterization of monolayer and stratified air-saturated poroelastic materials. Applied Acoustics, 2021, 182, 108200.	3.3	6
53	The direct problem of acoustic diffraction of an audible probe radiation by an air-saturated porous cylinder. Journal of Applied Physics, 2010, 108, .	2.5	5
54	Bayesian inference of human bone sample properties using ultrasonic reflected signals. Journal of the Acoustical Society of America, 2020, 148, 3797-3808.	1.1	5

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55	Addressing the ill-posedness of multi-layer porous media characterization in impedance tubes through the addition of air gaps behind the sample: Numerical validation. Journal of Sound and Vibration, 2021, 520, 116601.	3.9	4
56	Fractal Analysis of a Non-Newtonian Fluid Flow in a Rough-Walled Pipe. Materials, 2022, 15, 3700.	2.9	4
57	Accurate Ab-initio calculation of elastic constants of anisotropic binary alloys: A case of Feâ€“Al. Solid State Communications, 2022, 353, 114879.	1.9	4
58	Bayesian inference of a human bone and biomaterials using ultrasonic transmitted signals. Journal of the Acoustical Society of America, 2019, 146, 1629-1640.	1.1	3
59	Microstructural and elastic properties of stable aluminium-rich TiAl and TiAl2 formed phase Intermetallics. Materials Letters, 2021, 287, 129295.	2.6	3
60	Theoretical and experimental study of micropolar elastic materials using acoustic waves in air. Journal of Sound and Vibration, 2021, 510, 116298.	3.9	3
61	Reflection and transmission of transient ultrasonic wave in fractal porous material: Application of fractional calculus. Wave Motion, 2021, 106, 102804.	2.0	3
62	Transverse (lateral) instantaneous force of an acoustical first-order Bessel vortex beam centered on a rigid sphere. Ultrasonics, 2012, 52, 151-155.	3.9	2
63	Characterization of rigid porous medium via ultrasonic reflected waves at oblique incidence. Proceedings of Meetings on Acoustics, 2015, , .	0.3	2
64	Direct problem for reflected wave at the first interface of a rigid porous medium in Darcy's regime. Proceedings of Meetings on Acoustics, 2015, , .	0.3	2
65	Generalized equation for transient-wave propagation in continuous inhomogeneous rigid-frame porous materials at low frequencies. Journal of the Acoustical Society of America, 2013, 134, 4642-4647.	1.1	1
66	Transient Acoustic Wave Propagation in Porous Media. , 0, , .		1
67	Measurement of tortuosity and viscous characteristic length of double-layered porous absorbing materials with rigid-frames via transmitted ultrasonic-wave. Proceedings of Meetings on Acoustics, 2015, , .	0.3	1
68	Physical constraints on the non-dimensional absorption coefficients of compressional and shear waves for viscoelastic cylinders. Ultrasonics, 2017, 74, 233-240.	3.9	1
69	Wave Propagation in Porous Materials. , 0, , .		1
70	Ultrasound Measuring of Porosity in Porous Materials. , 2018, , .		1
71	Factorization Ã la Dirac Applied to Some Equations of Classical Physics. Mathematics, 2021, 9, 899.	2.2	0
72	Influence of Higher Order Viscous and Thermal Effects on an Ultrasonic Wave Reflected from the First Interface of a Porous Material. Materials, 2022, 15, 798.	2.9	0