

# Cristian Pantea

## List of Publications by Year in descending order

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46  
papers

964  
citations

623574

14  
h-index

434063

31  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1242  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electromechanical response of laterally clamped piezoelectric wafers: Absence of in-plane mechanical resonances in the electromechanical impedance spectrum. <i>Applied Acoustics</i> , 2022, 188, 108545.	1.7	1
2	Tuning the Relative Strengths of Electromechanical Resonances Using Non-Uniform Polarization of Piezoelectric Wafers. <i>IEEE Open Journal of Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2022, 2, 17-29.	0.9	0
3	Multilevel Frequency-Specific Information Storage Using Engineered Electromechanical Resonances in Piezoelectric Wafer Arrays. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2022, 69, 1392-1398.	1.7	2
4	A Physics-Based Signal Processing Approach for Noninvasive Ultrasonic Characterization of Multiphase Oil-Water-Gas Flows in a Pipe. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021, 68, 1328-1346.	1.7	7
5	Noninvasive Acoustic Measurements in Cylindrical Shell Containers. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021, 68, 2251-2258.	1.7	8
6	The effect of a transducer's spatial averaging on an elastodynamic guided wave's wavenumber spectrum. <i>Ultrasonics</i> , 2021, 114, 106422.	2.1	3
7	On the in-plane vibrations and electromechanical resonance characteristics of non-uniformly polarized rectangular piezoelectric wafers: Selective mode-type excitation and specific mode enhancement. <i>Journal of Sound and Vibration</i> , 2021, 506, 116129.	2.1	6
8	Engineering the beat phenomenon of quasi-Rayleigh waves for regions with minimal Surface Acoustic Wave (SAW) amplitude. <i>Journal of Sound and Vibration</i> , 2021, 515, 116444.	2.1	4
9	Multi-Level Information Storage Using Engineered Electromechanical Resonances of Piezoelectric Wafers: A Concept Piezoelectric Quick Response (PQR) Code. <i>Sensors</i> , 2020, 20, 6344.	2.1	4
10	A broadband wavelet implementation for rapid ultrasound pulse-echo time-of-flight measurements. <i>Review of Scientific Instruments</i> , 2020, 91, 075115.	0.6	9
11	Ultrasonic waves from radial mode excitation of a piezoelectric disc on the surface of an elastic solid. <i>Smart Materials and Structures</i> , 2020, 29, 085002.	1.8	7
12	Collimated acoustic beams from radial modes of piezoelectric disc transducers. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	2
13	Ultrasonic Bessel beam generation from radial modes of piezoelectric discs. <i>Ultrasonics</i> , 2019, 96, 140-148.	2.1	17
14	Beam Profile Characterization for Thickness Mode Transducers versus Radial Modes. , 2019, , .		1
15	Development of a 3D Acoustic Borehole Integrity Monitoring System. , 2019, , .		0
16	Radial modes of laterally stiffened piezoelectric disc transducers for ultrasonic collimated beam generation. <i>Wave Motion</i> , 2018, 76, 19-27.	1.0	13
17	Full-waveform inversion and least-squares reverse-time migration imaging of collimated ultrasonic-beam data for high-resolution wellbore integrity monitoring. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	4
18	Low-frequency ultrasonic Bessel-like collimated beam generation from radial modes of piezoelectric transducers. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	22

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19	Ultrasonic sensing for noninvasive characterization of oil-water-gas flow in a pipe. AIP Conference Proceedings, 2017, , .	0.3	6
20	Acoustic Characterization of Fluorinert FC-43 Liquid with Helium Gas Bubbles: Numerical Experiments. Shock and Vibration, 2017, 2017, 1-7.	0.3	4
21	Low-frequency ultrasonic collimated beam generation from piezoelectric discs. Proceedings of Meetings on Acoustics, 2017, , .	0.3	0
22	High frequency signal acquisition using a smartphone in an undergraduate teaching laboratory: Applications in ultrasonic resonance spectra. Journal of the Acoustical Society of America, 2016, 140, 2810-2816.	0.5	0
23	Measured sound speeds and acoustic nonlinearity parameter in liquid water up to 523 K and 14 MPa. AIP Advances, 2016, 6, .	0.6	5
24	Resonant Ultrasound Spectroscopy studies of Berea sandstone at high temperature. Journal of Geophysical Research: Solid Earth, 2016, 121, 6401-6410.	1.4	6
25	The acoustic nonlinearity parameter in Fluorinert up to 381â€‰K and 13.8â€‰MPa. Journal of the Acoustical Society of America, 2015, 138, EL31-EL35.	0.5	5
26	Determination of acoustical nonlinear parameter $\hat{\beta}^2$ of water using the finite amplitude method. Ultrasonics, 2013, 53, 1012-1019.	2.1	35
27	Evaluation of the transmission line model for couplant layer corrections in pulse-echo measurements. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 943-953.	1.7	8
28	Broadband unidirectional ultrasound propagation using sonic crystal and nonlinear medium. Emerging Materials Research, 2013, 2, 117-126.	0.4	11
29	Broadband directional ultrasound propagation using sonic crystal and nonlinear medium. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
30	Broad-band acoustic low frequency collimated beam for ultrasonic imaging. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
31	Determination of the acoustic nonlinearity parameter in liquid water up to 250&#x00B0;C and 14 MPa. , 2012, , .		3
32	An acoustic resonance measurement cell for liquid property determinations up to 250â€‰Â°C. Review of Scientific Instruments, 2012, 83, 115106.	0.6	6
33	Creating a collimated ultrasound beam in highly attenuating fluids. Ultrasonics, 2012, 52, 564-570.	2.1	2
34	Manipulation of diamond nanoparticles using bulk acoustic waves. Journal of Applied Physics, 2011, 109, .	1.1	73
35	High-pressure neutron diffraction studies at LANSCE. Applied Physics A: Materials Science and Processing, 2010, 99, 585-599.	1.1	24
36	Acoustic Nonlinearity in Fluorinert FC-43. Proceedings of Meetings on Acoustics, 2009, , .	0.3	2

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37	High-temperature phase transitions in CsH <sub>2</sub> PO <sub>4</sub> under ambient and high-pressure conditions: A synchrotron x-ray diffraction study. <i>Journal of Chemical Physics</i> , 2007, 127, 194701.	1.2	31
38	Experimental constraints on the phase diagram of elemental zirconium. <i>Journal of Physics and Chemistry of Solids</i> , 2005, 66, 1213-1219.	1.9	77
39	Development of high P&T neutron diffraction at LANSCE &toroidal anvil press, TAP-98, in the HiPPO diffractometer. , 2005, , 461-474.		12
40	Digital ultrasonic pulse-echo overlap system and algorithm for unambiguous determination of pulse transit time. <i>Review of Scientific Instruments</i> , 2005, 76, 114902.	0.6	26
41	Kinetics of SiC formation during high P&T reaction between diamond and silicon. <i>Diamond and Related Materials</i> , 2005, 14, 1611-1615.	1.8	22
42	Thermal equations of state of the $\beta$ , $\beta_2$ , and $\gamma$ phases of zirconium. <i>Physical Review B</i> , 2005, 71, .	1.1	113
43	Structural Influence of Erbium Centers on Silicon Nanocrystal Phase Transitions. <i>Physical Review Letters</i> , 2004, 93, 175502.	2.9	20
44	Enhancement of fracture toughness in nanostructured diamond&SiC composites. <i>Applied Physics Letters</i> , 2004, 84, 1356-1358.	1.5	100
45	Microstructure of carbon blacks determined by X-ray diffraction profile analysis. <i>Carbon</i> , 2002, 40, 929-937.	5.4	188
46	Partial graphitization of diamond crystals under high-pressure and high-temperature conditions. <i>Journal of Applied Physics</i> , 2001, 90, 1632-1637.	1.1	72