

Bernard Bonello

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,633
citations

279798

23
h-index

289244

40
g-index

48
all docs

48
docs citations

48
times ranked

1010
citing authors

#	ARTICLE	IF	CITATIONS
1	Abnormal topological refraction into free medium at subwavelength scale in valley phononic crystal plates. <i>Physical Review B</i> , 2021, 103, .	3.2	15
2	Broadband sub-diffraction and ultra-high energy density focusing of elastic waves in planar gradient-index lenses. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 150, 104357.	4.8	18
3	Physics of surface vibrational resonances: pillared phononic crystals, metamaterials, and metasurfaces. <i>Reports on Progress in Physics</i> , 2021, 84, 086502.	20.1	94
4	Tubular phononic crystal sensor. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	11
5	Robust Fano resonance in a topological mechanical beam. <i>Physical Review B</i> , 2020, 101, .	3.2	57
6	Active control of the transmission of Lamb waves through an elastic metamaterial. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	6
7	Elastic stubbed metamaterial plate with torsional resonances. <i>Ultrasonics</i> , 2020, 106, 106142.	3.9	17
8	Polarization-dependent and valley-protected Lamb waves in asymmetric pillared phononic crystals. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 505302.	2.8	16
9	Topological valley, pseudospin, and pseudospin-valley protected edge states in symmetric pillared phononic crystals. <i>Physical Review B</i> , 2019, 100, .	3.2	35
10	Experimental evidence of quadrupolar whispering-gallery modes in phononic crystal based waveguides. <i>AIP Advances</i> , 2019, 9, 085032.	1.3	1
11	Multi-branch subwavelength focusing of the lowest-order antisymmetric Lamb mode in a gradient-index phononic crystal. <i>International Journal of Mechanical Sciences</i> , 2019, 157-158, 677-683.	6.7	28
12	Rainbow guiding of the lowest-order antisymmetric Lamb mode in phononic crystal plate. <i>Science China Technological Sciences</i> , 2019, 62, 458-463.	4.0	6
13	Love waves dispersion by phononic pillars for nano-particle mass sensing. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	27
14	Rayleigh Waves in Phononic Crystal Made of Multilayered Pillars: Confined Modes, Fano Resonances, and Acoustically Induced Transparency. <i>Physical Review Applied</i> , 2018, 9, .	3.8	45
15	Evaluation of Effective Elastic Properties of Nitride NWs/Polymer Composite Materials Using Laser-Generated Surface Acoustic Waves. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2319.	2.5	8
16	Double-Negative Pillared Elastic Metamaterial. <i>Physical Review Applied</i> , 2018, 10, .	3.8	28
17	Compact Waveguide and Guided Beam Pattern Based on the Whispering-Gallery Mode of a Hollow Pillar in a Phononic Crystal Plate. <i>Physical Review Applied</i> , 2018, 10, .	3.8	7
18	Wave propagation in one-dimensional nonlinear acoustic metamaterials. <i>New Journal of Physics</i> , 2017, 19, 053007.	2.9	77

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19	Investigation of surface acoustic wave propagation in composite pillar based phononic crystals within both local resonance and Bragg scattering mechanism regimes. Journal Physics D: Applied Physics, 2017, 50, 435602.	2.8	23
20	Pillar-type acoustic metasurface. Physical Review B, 2017, 96, .	3.2	44
21	Ultra-low and ultra-broad-band nonlinear acoustic metamaterials. Nature Communications, 2017, 8, 1288.	12.8	184
22	Phononic Crystal Made of Multilayered Ridges on a Substrate for Rayleigh Waves Manipulation. Crystals, 2017, 7, 372.	2.2	19
23	Focusing of Rayleigh waves with gradient-index phononic crystals. Applied Physics Letters, 2016, 108, .	3.3	40
24	Preface to Special Topic: Selected Articles from Phononics 2015: The Third International Conference on Phononic Crystals/Metamaterials, Phonon Transport and Phonon Coupling, 31 May-5 June 2015, Paris, France. AIP Advances, 2016, 6, 121501.	1.3	2
25	Tunable waveguide and cavity in a phononic crystal plate by controlling whispering-gallery modes in hollow pillars. Physical Review B, 2016, 93, .	3.2	100
26	Focusing of the lowest-order antisymmetric Lamb mode behind a gradient-index acoustic metalens with local resonators. Physical Review B, 2016, 93, .	3.2	36
27	Air-coupled method to investigate the lowest-order antisymmetric Lamb mode in stubbed and air-drilled phononic plates. AIP Advances, 2016, 6, 085021.	1.3	8
28	Negative effective mass density of acoustic metamaterial plate decorated with low frequency resonant pillars. Journal of Applied Physics, 2014, 116, .	2.5	57
29	Beam path and focusing of flexural Lamb waves within phononic crystal-based acoustic lenses. New Journal of Physics, 2014, 16, 063031.	2.9	38
30	Broadband attenuation of Lamb waves through a periodic array of thin rectangular junctions. Physical Review B, 2014, 90, .	3.2	17
31	Acoustic metamaterials with piezoelectric resonant structures. Journal Physics D: Applied Physics, 2014, 47, 245301.	2.8	23
32	Beam paths of flexural Lamb waves at high frequency in the first band within phononic crystal-based acoustic lenses. AIP Advances, 2014, 4, .	1.3	7
33	Efficient focalization of antisymmetric Lamb waves in gradient-index phononic crystal plates. Applied Physics Letters, 2012, 101, .	3.3	63
34	Dynamics of confined cavity modes in a phononic crystal slab investigated by <i>in situ</i> time-resolved experiments. Physical Review B, 2012, 86, .	3.2	21
35	Intra-band gap in Lamb modes propagating in a periodic solid structure. Journal Physics D: Applied Physics, 2012, 45, 185305.	2.8	2
36	Propagation of acoustic surface waves on a phononic surface investigated by transient reflecting grating spectroscopy. Journal of the Mechanics and Physics of Solids, 2011, 59, 2370-2381.	4.8	20

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37	Negative refraction of zero order flexural Lamb waves through a two-dimensional phononic crystal. Applied Physics Letters, 2010, 97, .	3.3	59
38	Negative refraction of surface acoustic waves in the subgigahertz range. Physical Review B, 2010, 82, .	3.2	32
39	Lamb waves in phononic crystal slabs with square or rectangular symmetries. Journal of Applied Physics, 2008, 104, 043506.	2.5	22
40	Plate-mode waves in phononic crystal thin slabs: Mode conversion. Physical Review E, 2008, 78, 036609.	2.1	38
41	Lamb waves in plates covered by a two-dimensional phononic film. Applied Physics Letters, 2007, 90, 021909.	3.3	63
42	Velocity of a SAW propagating in a 2D phononic crystal. Ultrasonics, 2006, 44, e1259-e1263.	3.9	14
43	Propagation of guided elastic waves in 2D phononic crystals. Ultrasonics, 2006, 44, e1209-e1213.	3.9	72
44	Aging of the field-induced asymmetry in a disordered ferroelectric. European Physical Journal B, 2006, 52, 219-225.	1.5	0
45	Aging of the asymmetry induced by the biasing electric field in a disordered ferroelectric. Europhysics Letters, 2004, 66, 520-526.	2.0	1
46	Maxwell relation in an aging disordered dielectric. Physical Review B, 2003, 67, .	3.2	2
47	Surface acoustic waves in the GHz range generated by periodically patterned metallic stripes illuminated by an ultrashort laser pulse. Journal of the Acoustical Society of America, 2001, 110, 1943-1949.	1.1	38
48	Application of the picosecond ultrasonic technique to the study of elastic and time-resolved thermal properties of materials. Ultrasonics, 1997, 35, 223-231.	3.9	92