

Bernard Bonello

List of Publications by Year in descending order

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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	Ultra-low and ultra-broad-band nonlinear acoustic metamaterials. Nature Communications, 2017, 8, 1288.	12.8	184
2	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
3	Physics of surface vibrational resonances: pillared phononic crystals, metamaterials, and metasurfaces. Reports on Progress in Physics, 2021, 84, 086502.	20.1	94
4	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
5	Wave propagation in one-dimensional nonlinear acoustic metamaterials. New Journal of Physics, 2017, 19, 053007.	2.9	77
6	Propagation of guided elastic waves in 2D phononic crystals. Ultrasonics, 2006, 44, e1209-e1213.	3.9	72
7	Lamb waves in plates covered by a two-dimensional phononic film. Applied Physics Letters, 2007, 90, 021909.	3.3	63
8	Efficient focalization of antisymmetric Lamb waves in gradient-index phononic crystal plates. Applied Physics Letters, 2012, 101, .	3.3	63
9	Negative refraction of zero order flexural Lamb waves through a two-dimensional phononic crystal. Applied Physics Letters, 2010, 97, .	3.3	59
10	Negative effective mass density of acoustic metamaterial plate decorated with low frequency resonant pillars. Journal of Applied Physics, 2014, 116, .	2.5	57
11	Robust Fano resonance in a topological mechanical beam. Physical Review B, 2020, 101, .	3.2	57
12	Rayleigh Waves in Phononic Crystal Made of Multilayered Pillars: Confined Modes, Fano Resonances, and Acoustically Induced Transparency. Physical Review Applied, 2018, 9, .	3.8	45
13	Pillar-type acoustic metasurface. Physical Review B, 2017, 96, .	3.2	44
14	Focusing of Rayleigh waves with gradient-index phononic crystals. Applied Physics Letters, 2016, 108, .	3.3	40
15	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
16	Plate-mode waves in phononic crystal thin slabs: Mode conversion. Physical Review E, 2008, 78, 036609.	2.1	38
17	Beam path and focusing of flexural Lamb waves within phononic crystal-based acoustic lenses. New Journal of Physics, 2014, 16, 063031.	2.9	38
18	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

#	ARTICLE	IF	CITATIONS
19	Topological valley, pseudospin, and pseudospin-valley protected edge states in symmetric pillared phononic crystals. <i>Physical Review B</i> , 2019, 100, .	3.2	35
20	Negative refraction of surface acoustic waves in the subgigahertz range. <i>Physical Review B</i> , 2010, 82, .	3.2	32
21	Double-Negative Pillared Elastic Metamaterial. <i>Physical Review Applied</i> , 2018, 10, .	3.8	28
22	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
23	Love waves dispersion by phononic pillars for nano-particle mass sensing. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	27
24	Acoustic metamaterials with piezoelectric resonant structures. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 245301.	2.8	23
25	Investigation of surface acoustic wave propagation in composite pillar based phononic crystals within both local resonance and Bragg scattering mechanism regimes. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 435602.	2.8	23
26	Lamb waves in phononic crystal slabs with square or rectangular symmetries. <i>Journal of Applied Physics</i> , 2008, 104, 043506.	2.5	22
27	Dynamics of confined cavity modes in a phononic crystal slab investigated by <i>in situ</i> time-resolved experiments. <i>Physical Review B</i> , 2012, 86, .	3.2	21
28	Propagation of acoustic surface waves on a phononic surface investigated by transient reflecting grating spectroscopy. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 2370-2381.	4.8	20
29	Phononic Crystal Made of Multilayered Ridges on a Substrate for Rayleigh Waves Manipulation. <i>Crystals</i> , 2017, 7, 372.	2.2	19
30	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
31	Broadband attenuation of Lamb waves through a periodic array of thin rectangular junctions. <i>Physical Review B</i> , 2014, 90, .	3.2	17
32	Elastic stubbed metamaterial plate with torsional resonances. <i>Ultrasonics</i> , 2020, 106, 106142.	3.9	17
33	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
34	Abnormal topological refraction into free medium at subwavelength scale in valley phononic crystal plates. <i>Physical Review B</i> , 2021, 103, .	3.2	15
35	Velocity of a SAW propagating in a 2D phononic crystal. <i>Ultrasonics</i> , 2006, 44, e1259-e1263.	3.9	14
36	Tubular phononic crystal sensor. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	11

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37	Air-coupled method to investigate the lowest-order antisymmetric Lamb mode in stubbed and air-drilled phononic plates. <i>AIP Advances</i> , 2016, 6, 085021.	1.3	8
38	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
39	Beam paths of flexural Lamb waves at high frequency in the first band within phononic crystal-based acoustic lenses. <i>AIP Advances</i> , 2014, 4, .	1.3	7
40	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
41	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
42	Active control of the transmission of Lamb waves through an elastic metamaterial. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	6
43	Maxwell relation in an aging disordered dielectric. <i>Physical Review B</i> , 2003, 67, .	3.2	2
44	Intra-band gap in Lamb modes propagating in a periodic solid structure. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 185305.	2.8	2
45	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. <i>AIP Advances</i> , 2016, 6, 121501.	1.3	2
46	Aging of the asymmetry induced by the biasing electric field in a disordered ferroelectric. <i>Europhysics Letters</i> , 2004, 66, 520-526.	2.0	1
47	Experimental evidence of quadrupolar whispering-gallery modes in phononic crystal based waveguides. <i>AIP Advances</i> , 2019, 9, 085032.	1.3	1
48	Aging of the field-induced asymmetry in a disordered ferroelectric. <i>European Physical Journal B</i> , 2006, 52, 219-225.	1.5	0