Nobutomo Nakamura

List of Publications by Year
in descending order

78	1,217	394421 19	395702 33
papers	citations	h-index	g-index

78	78	78	1043
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Elastic, anelastic, and piezoelectric coefficients of langasite: resonance ultrasound spectroscopy with laser-Doppler interferometry. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 553-560.	3.0	92
2	Elastic, anelastic, and piezoelectric coefficients of Î±-quartz determined by resonance ultrasound spectroscopy. Journal of Applied Physics, 2006, 100, 053511.	2.5	81
3	Mode conversion behavior of SH guided wave in a tapered plate. NDT and E International, 2012, 45, 156-161.	3.7	81
4	Observation of higher stiffness in nanopolycrystal diamond than monocrystal diamond. Nature Communications, 2013, 4, 2343.	12.8	68
5	Elastic constants of chemical-vapor-deposition diamond thin films: resonance ultrasound spectroscopy with laser-Doppler interferometry. Acta Materialia, 2004, 52, 765-771.	7.9	66
6	Stiffened Ultrathin Pt Films Confirmed by Acoustic-Phonon Resonances. Physical Review Letters, 2007, 98, 195503.	7.8	63
7	Elastic constant and Brillouin oscillations in sputtered vitreous<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> films. Physical Review B, 2008, 78, .	3.2	60
8	EMAT pipe inspection technique using higher mode torsional guided wave T(0,2). NDT and E International, 2017, 87, 78-84.	3.7	50
9	Elastic, anelastic, and piezoelectric coefficients of GaN. Journal of Applied Physics, 2012, 111, .	2.5	44
10	Inspection of stress corrosion cracking in welded stainless steel pipe using point-focusing electromagnetic-acoustic transducer. NDT and E International, 2016, 83, 88-93.	3.7	41
11	Resonance acoustic-phonon spectroscopy for studying elasticity of ultrathin films. Applied Physics Letters, 2007, 90, 191906.	3.3	40
12	Unusual elasticity of monoclinic Î²â€²Ga2O3. Journal of Applied Physics, 2018, 124, .	2.5	36
13	Off-diagonal elastic constant and sp2-bonded graphitic grain boundary in nanocrystalline-diamond thin films. Applied Physics Letters, 2005, 86, 231904.	3.3	32
14	Development of shear-vertical-wave point-focusing electromagnetic acoustic transducer. Japanese Journal of Applied Physics, 2015, 54, 07HC04.	1.5	32
15	Unusual Elastic Behavior of Nanocrystalline Diamond Thin Films. Physical Review Letters, 2008, 100, 016804.	7.8	31
16	MEMS hydrogen gas sensor with wireless quartz crystal resonator. Sensors and Actuators B: Chemical, 2021, 334, 129651.	7.8	30
17	Resonance ultrasound spectroscopy with laser-Doppler interferometry for studying elastic properties of thin films. Ultrasonics, 2004, 42, 491-494.	3.9	22
18	Mechanism of Elastic Softening Behavior in a Superlattice. Physical Review Letters, 2007, 99, 035502.	7.8	22

#	Article	IF	Citations
19	Stable elasticity of epitaxial Cu thin films on Si. Physical Review B, 2008, 77, .	3.2	21
20	Recovery of elastic constant of ultrathin Cu films by low temperature annealing. Applied Physics Letters, 2008, 92, .	3.3	16
21	Elastic Constants of Co/Pt Superlattice Studied by Acoustic Measurements andAb initioCalculations. Japanese Journal of Applied Physics, 2008, 47, 3847-3850.	1.5	15
22	Stacking-fault structure explains unusual elasticity of nanocrystalline diamonds. Applied Physics Letters, 2009, 94, 041914.	3.3	15
23	Elastic constants of langasite and alpha quartz at high temperatures measured by antenna transmission acoustic resonance. Review of Scientific Instruments, 2012, 83, 073901.	1.3	15
24	Resonant-ultrasound spectroscopy for studying annealing effect on elastic constant of thin film. Ultrasonics, 2010, 50, 150-154.	3.9	14
25	Measurement of Elastic Constant and Refraction Index of Thin Films at Low Temperatures Using Picosecond Ultrasound. Japanese Journal of Applied Physics, 2010, 49, 07HB01.	1.5	13
26	Elastic stiffness of L1 FePt thin film studied by picosecond ultrasonics. Applied Physics Letters, 2011, 98, .	3.3	13
27	Elastic-Constant Measurement in Oxide and Semiconductor Thin Films by Brillouin Oscillations Excited by Picosecond Ultrasound. Japanese Journal of Applied Physics, 2009, 48, 07GA01.	1.5	12
28	Precise control of hydrogen response of semicontinuous palladium film using piezoelectric resonance method. Applied Physics Letters, 2019, 114, .	3.3	12
29	Elastic constants and magnetic anisotropy of Coâˆ•Pt superlattice thin films. Applied Physics Letters, 2005, 86, 111918.	3.3	11
30	Significant softening of copper nanowires during electromigration studied by picosecond ultrasound spectroscopy. Physical Review B, 2010, 82, .	3.2	11
31	Picosecond ultrasound spectroscopy for studying elastic modulus of thin films: a review. Nondestructive Testing and Evaluation, 2011, 26, 267-280.	2.1	10
32	Note: An iterative algorithm to improve colloidal particle locating. Review of Scientific Instruments, 2016, 87, 066103.	1.3	10
33	MODE CONVERSION OF SH GUIDED WAVES AT DEFECTS FOR PIPELINE INSPECTION. , 2009, , .		9
34	Formation of continuous metallic film on quartz studied by noncontact resonant ultrasound spectroscopy. Journal of Applied Physics, 2015, 118, .	2.5	9
35	Enhancement of sensitivity of Pd-based hydrogen-gas sensor by plasma exposure studied by wireless quartz resonator. Japanese Journal of Applied Physics, 2020, 59, SKKB02.	1.5	9
36	Advanced resonant ultrasound spectroscopy for measuring anisotropic elastic constants of thin films. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 657-663.	3.4	8

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37	Observation of Î“-point phonon frequency in ultrathin metallic films confirmed byab initiocalculation and lattice dynamics. Applied Physics Letters, 2009, 95, 011902.	3.3	8
38	Elastic constants of polycrystalline L10-FePt at high temperatures. Journal of Applied Physics, 2013, 114, 093506.	2.5	8
39	Thermal Mode Spectroscopy for Thermal Diffusivity of Millimeter-Size Solids. Physical Review Letters, 2016, 117, 195901.	7.8	8
40	Highly sensitive hydrogen detection using curvature change of wireless-electrodeless quartz resonators. Applied Physics Letters, 2019, 115, .	3.3	8
41	Annealing Effect on Acoustic Property of Fe/Pt Superlattice Studied by Picosecond Ultrasound. Japanese Journal of Applied Physics, 2010, 49, 07HB04.	1.5	7
42	Accelerated crystallization of colloidal glass by mechanical oscillation. Scientific Reports, 2017, 7, 1369.	3.3	7
43	Resistive spectroscopy coupled with non-contacting oscillator for detecting discontinuous-continuous transition of metallic films. Applied Physics Letters, 2017, 111, .	3.3	7
44	Hydrogen-gas sensing at low concentrations using extremely narrow gap palladium nanoclusters prepared by resistive spectroscopy. Journal of Applied Physics, 2019, 126, .	2.5	7
45	Fast recovery of elastic constant in thin films studied by resonant-ultrasound spectroscopy. Journal of Applied Physics, 2010, 107, .	2.5	5
46	Fast Recovery of Elastic Stiffness in Ag Thin Film Studied by Resonant-Ultrasound Spectroscopy. Japanese Journal of Applied Physics, 2009, 48, 07GA02.	1.5	4
47	Extraction of Interface Stiffness in Superlattices: Proposal of the Interface Elasticity Parameter. Applied Physics Express, 2009, 2, 105001.	2.4	4
48	Mode conversion of torsional waves generated by electromagnetic acoustic transducer. AIP Conference Proceedings, 2013, , .	0.4	4
49	Elastic Stiffness of Co Thin Films at High Temperatures Monitored by Picosecond Ultrasound. Japanese Journal of Applied Physics, 2013, 52, 07HB05.	1.5	4
50	Mechanical oscillation accelerating nucleation and nuclei growth in hard-sphere colloidal glass. Scientific Reports, 2019, 9, 12836.	3.3	4
51	Restructuring in bimetallic core-shell nanoparticles: Real-time observation. Physical Review B, 2022, 105, .	3.2	4
52	Elastic stiffness of metallic multilayers studied by picosecond ultrasonics: improved interpretation of interface elasticity. Japanese Journal of Applied Physics, 2019, 58, 075504.	1.5	3
53	Advanced Resonant-Ultrasound Spectroscopy for Studying Anisotropic Elastic Constants of Thin Films. Materials Research Society Symposia Proceedings, 2005, 875, 1.	0.1	2
54	Laser-Induced Coherent Acoustic Phonons for Measuring Elastic Constants of Ultra-Thin Films. Journal of Solid Mechanics and Materials Engineering, 2008, 2, 1420-1426.	0.5	2

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55	Review on Acoustic Transducers for Resonant Ultrasound Spectroscopy. Jom, 2015, 67, 1849-1855.	1.9	2
56	Multi-mode resistive spectroscopy for precisely controlling morphology of extremely narrow gap palladium nanocluster array. Review of Scientific Instruments, 2021, 92, 063901.	1.3	2
57	Relationship between Elastic Constants and Microstructure of Nanocrystalline CVD Diamond Thin Films. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2006, 72, 1819-1824.	0.2	1
58	Spontaneous nucleation on flat surface by depletion force in colloidal suspension. Scientific Reports, 2021, 11, 8929.	3.3	1
59	Development of confocal picosecond ultrasonics for visualizing propagation of an acoustic wave. Japanese Journal of Applied Physics, 2020, 59, SKKB04.	1.5	1
60	Elastic Constants of Co/Pt Nano-Multilayers by Resonance Ultrasound Spectroscopy. AIP Conference Proceedings, 2005, , .	0.4	0
61	Correlation Between Elastic Constants and Magnetic Anisotropy in Co/Pt Superlattice Thin Films. Materials Research Society Symposia Proceedings, 2005, 875, 1.	0.1	0
62	Elastic Constants and Graphitic Grain Boundaries of Nanocrystalline CVD-Diamond Thin Films: Resonant Ultrasound Spectroscopy and Micromechanics Calculation. Materials Research Society Symposia Proceedings, 2005, 875, 1.	0.1	0
63	Anisotropic Elastic Constants of Copper Thin Films: RUS/Laser and Picosecond-Laser Ultrasound. AIP Conference Proceedings, 2006, , .	0.4	0
64	ELASTIC CONSTANTS AND SP[sup 2]-BONDED REGION OF NANOCRYSTALLINE DIAMOND THIN FILMS. , 2009, , .		0
65	Development of Wavelength-Tunable Picosecond Ultrasound Method for Evaluating Ultrasonic Attenuation in Oxide Thin Films. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1444-1451.	0.2	0
66	OS02F016 Picosecond ultrasound at low temperatures for Pd thin films. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS02F016-_OS02F016-.	0.0	0
67	Notice of Removal: Monitoring of morphological change of deposited metallic thin film through internal friction of noncontacting piezoelectric oscillator. , 2017, , .		0
68	OS06W0137 Acoustic spectroscopy for measuring anisotropic elastic constants of thin films. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003.2, _OS06W0137-_OS06W0137.	0.0	0
69	OS6(5)-22(OS06W0137) Acoustic Spectroscopy for Measuring Anisotropic Elastic Constants of Thin Films. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003, 237.	0.0	0
70	Measurement of elastic constants of copper thin films and microstructure evaluation by acoustic-resonance method. Proceedings of the 1992 Annual Meeting of JSME/MMD, 2003, 2003, 439-440.	0.0	0
71	Ab-Initio Calculation Model for Nanocrystalline Diamond with Non-sp^3 Bonded Region and Its Effect on Elastic Properties. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 1424-1429.	0.2	0
72	OS02-2-2 Low-temperature elastic anomaly of Pd thin films studied by picosecond ultrasound. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS02-2-2-.	0.0	0

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73	OS02-5-2 Recovery of thin film studied by resonant-ultrasound spectroscopy. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS02-5-2-.	0.0	0
74	OS02-4-2 Temperature dependences of elastic constants and internal friction of Î±-quartz near Î±-Î² phase transformation studied by antenna-transmission noncontacting acoustic resonance method. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS02-4-2-.	0.0	0
75	Observation of Morphology Change of Metallic Films Deposited on Silica Glass Using Noncontact Piezoelectric Resonance Method. The Proceedings of Mechanical Engineering Congress Japan, 2018, 2018, J0410401.	0.0	0
76	Evaluation of Wall Thinning using Mode Conversion of Guided Wave. The Proceedings of Mechanical Engineering Congress Japan, 2019, 2019, J40146.	0.0	0
77	Deposition of Semicontinuous Film on Silicon Substrate using Noncontacting Piezoelectric Resonance Method. The Proceedings of Mechanical Engineering Congress Japan, 2019, 2019, J04303.	0.0	0
78	Observation of growth process of thin film on heated substrate by using resistive spectroscopy. The Proceedings of Mechanical Engineering Congress Japan, 2020, 2020, J04109.	0.0	0