

Walter Arnold

List of Publications by Year in descending order

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209
papers

6,773
citations

71102

41
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66911

78
g-index

220
all docs

220
docs citations

220
times ranked

3736
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1 | Vibrations of free and surface-coupled atomic force microscope cantilevers: Theory and experiment. Review of Scientific Instruments, 1996, 67, 3281-3293. | 1.3 | 653 |
| 2 | Local elastic properties of a metallic glass. Nature Materials, 2011, 10, 439-442. | 27.5 | 366 |
| 3 | Acoustic microscopy by atomic force microscopy. Applied Physics Letters, 1994, 64, 1493-1495. | 3.3 | 331 |
| 4 | Quantitative determination of contact stiffness using atomic force acoustic microscopy. Ultrasonics, 2000, 38, 430-437. | 3.9 | 273 |
| 5 | Elastic effects of structural relaxation in glasses at low temperatures. Journal of Non-Crystalline Solids, 1976, 20, 365-391. | 3.1 | 265 |
| 6 | The landing(s) of Philae and inferences about comet surface mechanical properties. Science, 2015, 349, aaa9816. | 12.6 | 212 |
| 7 | Imaging and measurement of local mechanical material properties by atomic force acoustic microscopy. Surface and Interface Analysis, 2002, 33, 65-70. | 1.8 | 208 |
| 8 | High-frequency response of atomic-force microscope cantilevers. Journal of Applied Physics, 1997, 82, 966-979. | 2.5 | 179 |
| 9 | Analysis of the high-frequency response of atomic force microscope cantilevers. Applied Physics A: Materials Science and Processing, 1998, 66, S277-S282. | 2.3 | 149 |
| 10 | Measurement of Young's modulus of clay minerals using atomic force acoustic microscopy. Geophysical Research Letters, 2002, 29, 13-1-13-4. | 4.0 | 148 |
| 11 | High-resolution characterization of piezoelectric ceramics by ultrasonic scanning force microscopy techniques. Journal Physics D: Applied Physics, 2002, 35, 2621-2635. | 2.8 | 140 |
| 12 | Ultrasonic Properties of Glasses at Low Temperatures. Physical Acoustics, 1976, 12, 155-215. | 0.0 | 130 |
| 13 | Saturation of the ultrasonic absorption in vitreous silica at low temperatures. Physics Letters, Section A: General, Atomic and Solid State Physics, 1972, 42, 253-255. | 2.1 | 116 |
| 14 | Measurements of elastic properties of ultra-thin diamond-like carbon coatings using atomic force acoustic microscopy. Thin Solid Films, 2001, 392, 75-84. | 1.8 | 111 |
| 15 | On the nanoscale measurement of friction using atomic-force microscope cantilever torsional resonances. Applied Physics Letters, 2003, 82, 2604-2606. | 3.3 | 104 |
| 16 | Influence of optical absorption on the Van der Waals interaction between solids. Physical Review B, 1979, 19, 6049-6056. | 3.2 | 97 |
| 17 | X-ray computed laminography: an approach of computed tomography for applications with limited access. Nuclear Engineering and Design, 1999, 190, 141-147. | 1.7 | 85 |
| 18 | A single shear band in a metallic glass: Local core and wide soft zone. Applied Physics Letters, 2014, 105, . | 3.3 | 85 |

| # | ARTICLE | IF | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Imaging and measurement of elasticity and friction using the TRmode. Journal Physics D: Applied Physics, 2005, 38, R269-R282. | 2.8 | 81 |
| 20 | Measurement of Young's modulus of nanocrystalline ferrites with spinel structures by atomic force acoustic microscopy. Journal of Physics and Chemistry of Solids, 2000, 61, 1275-1284. | 4.0 | 78 |
| 21 | A Dynamic Method for Measuring the van der Waals Forces between Macroscopic Bodies. Review of Scientific Instruments, 1972, 43, 584-587. | 1.3 | 77 |
| 22 | Experimental evidence for the direct interaction between two-level systems in glasses at very low temperatures. Solid State Communications, 1975, 17, 883-886. | 1.9 | 76 |
| 23 | Nondestructive evaluation of elastic parameters of sintered iron powder compacts. Journal of Materials Science, 1990, 25, 1397-1402. | 3.7 | 76 |
| 24 | Linking macroscopic rejuvenation to nano-elastic fluctuations in a metallic glass. Acta Materialia, 2017, 138, 111-118. | 7.9 | 76 |
| 25 | Lateral force microscopy using acoustic friction force microscopy. Surface and Interface Analysis, 1999, 27, 578-587. | 1.8 | 75 |
| 26 | MECHANISMS AND MODELS FOR CRACK DETECTION WITH INDUCTION THERMOGRAPHY. AIP Conference Proceedings, 2008, , . | 0.4 | 75 |
| 27 | Nonlinear ultrasonic attenuation in glasses. Journal of Non-Crystalline Solids, 1974, 14, 192-200. | 3.1 | 71 |
| 28 | Interferometric detection of ultrasound at rough surfaces using optical phase conjugation. Applied Physics Letters, 1987, 50, 1569-1571. | 3.3 | 71 |
| 29 | Theoretical description of the transfer of vibrations from a sample to the cantilever of an atomic force microscope. Nanotechnology, 1997, 8, 57-66. | 2.6 | 70 |
| 30 | Finite element simulation of moldboard-soil interaction. Soil and Tillage Research, 2013, 134, 11-16. | 5.6 | 68 |
| 31 | Imaging of flexural and torsional resonance modes of atomic force microscopy cantilevers using optical interferometry. Surface Science, 2003, 532-535, 1152-1158. | 1.9 | 56 |
| 32 | Anomalous ultrasonic attenuation in vitreous silica at low temperatures. Physics Letters, Section A: General, Atomic and Solid State Physics, 1973, 45, 311-312. | 2.1 | 55 |
| 33 | Local elasticity and lubrication measurements using atomic force and friction force microscopy at ultrasonic frequencies. IEEE Transactions on Magnetics, 1997, 33, 4077-4079. | 2.1 | 53 |
| 34 | Sesame - An Experiment of the Rosetta Lander Philae: Objectives and General Design. Space Science Reviews, 2007, 128, 301-337. | 8.1 | 53 |
| 35 | Computed laminography for materials testing. Applied Physics Letters, 1996, 68, 3500-3502. | 3.3 | 52 |
| 36 | Nanomechanical surface characterization by atomic force acoustic microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1506. | 1.6 | 51 |

| # | ARTICLE | IF | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Evaluation of the contact resonance frequencies in atomic force microscopy as a method for surface characterisation (invited). <i>Ultrasonics</i> , 2002, 40, 49-54. | 3.9 | 49 |
| 38 | Probing linear and non-linear tip-sample interaction forces by atomic force acoustic microscopy. <i>Surface and Interface Analysis</i> , 1999, 27, 386-391. | 1.8 | 47 |
| 39 | Acoustic Microscopic Analysis of the Biological Structure of Insect Wing Membranes with Emphasis on their Waxy Surface. <i>Annals of Biomedical Engineering</i> , 2001, 29, 1054-1058. | 2.5 | 43 |
| 40 | Influence of the cantilever holder on the vibrations of AFM cantilevers. <i>Nanotechnology</i> , 2007, 18, 044008. | 2.6 | 43 |
| 41 | Simulation of vibrational resonances of stiff AFM cantilevers by finite element methods. <i>New Journal of Physics</i> , 2009, 11, 083034. | 2.9 | 42 |
| 42 | Efficient generation of surface acoustic waves by thermoelasticity. <i>Applied Physics Letters</i> , 1985, 47, 672-674. | 3.3 | 41 |
| 43 | Observation of local internal friction and plasticity onset in nanocrystalline nickel by atomic force acoustic microscopy. <i>Acta Materialia</i> , 2009, 57, 4353-4363. | 7.9 | 41 |
| 44 | Assessment of the adhesion quality of fusion-welded silicon wafers with nonlinear ultrasound. <i>Ultrasonics</i> , 2000, 38, 316-321. | 3.9 | 40 |
| 45 | Ultrasonic properties of superconducting amorphous PdZr. <i>Solid State Communications</i> , 1980, 33, 111-114. | 1.9 | 38 |
| 46 | Measurement of elastic impedance with high spatial resolution using acoustic microscopy. <i>Applied Physics Letters</i> , 1995, 67, 745-747. | 3.3 | 37 |
| 47 | Atomic force microscopy at MHz frequencies. <i>Annalen Der Physik</i> , 1994, 506, 589-598. | 2.4 | 35 |
| 48 | A Method of Evaluating Local Elasticity and Adhesion Energy from the Nonlinear Response of AFM Cantilever Vibrations.. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2001, 44, 396-405. | 0.4 | 34 |
| 49 | MEASUREMENTS OF THE ELASTIC CONSTANTS, THE SPECIFIC HEAT AND THE ENTROPY OF GRAIN BOUNDARIES BY MEANS OF ULTRA-FINE GRAINED MATERIALS. <i>Journal De Physique Colloque</i> , 1988, 49, C5-769-C5-779. | 0.2 | 34 |
| 50 | Investigating ultra-thin lubricant layers using resonant friction force microscopy. <i>Tribology International</i> , 2005, 38, 533-541. | 5.9 | 33 |
| 51 | Shear softening of grain boundaries in nanocrystalline Pd. <i>Acta Materialia</i> , 2011, 59, 1523-1529. | 7.9 | 33 |
| 52 | Elasticity mapping of precipitates in polycrystalline materials using atomic force acoustic microscopy. <i>Applied Physics Letters</i> , 2008, 92, . | 3.3 | 32 |
| 53 | On the ultrasonic absorption and dispersion in amorphous superconductors. <i>Journal De Physique (Paris), Lettres</i> , 1981, 42, 289-294. | 2.8 | 32 |
| 54 | Materials characterization at high temperatures using laser ultrasound. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1993, 168, 87-92. | 5.6 | 31 |

| # | ARTICLE | IF | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Quantitative Evaluation of Elastic Properties of Nano-Crystalline Nickel Using Atomic Force Acoustic Microscopy. Zeitschrift Fur Physikalische Chemie, 2008, 222, 471-498. | 2.8 | 31 |
| 56 | Imaging of subsurface structures using atomic force acoustic microscopy at GHz frequencies. Journal of Applied Physics, 2011, 109, . | 2.5 | 31 |
| 57 | Imaging using lateral bending modes of atomic force microscope cantilevers. Applied Physics Letters, 2004, 85, 6398-6400. | 3.3 | 30 |
| 58 | Backward-Wave Phonon Echoes in Glass. Physical Review Letters, 1977, 39, 239-242. | 7.8 | 29 |
| 59 | Three-point hitch-mechanism instrumentation for tillage power optimization. Biosystems Engineering, 2008, 100, 24-30. | 4.3 | 29 |
| 60 | Structure and elastic parameters of the near surface of Abydos site on comet 67P/Churyumovâ€™Gerasimenko, as obtained by SESAME/CASSE listening to the MUPUS insertion phase. Icarus, 2018, 310, 165-193. | 2.5 | 28 |
| 61 | INDUCTION AND CONDUCTION THERMOGRAPHY: OPTIMIZING THE ELECTROMAGNETIC EXCITATION TOWARDS APPLICATION. , 2009, , . | | 27 |
| 62 | Detection of subsurface cavity structures using contact-resonance atomic force microscopy. Journal of Applied Physics, 2017, 121, 154301. | 2.5 | 26 |
| 63 | Multilayer coatings on CFC composites for high-temperature applications. Surface and Coatings Technology, 1998, 100-101, 329-332. | 4.8 | 25 |
| 64 | Nonlinear contact resonance spectroscopy in atomic force microscopy. Journal Physics D: Applied Physics, 2007, 40, 7136-7145. | 2.8 | 25 |
| 65 | Low-Temperature Specific-Heat Anomaly of a One-Dimensional Ionic Conductor. Physical Review Letters, 1981, 46, 1213-1216. | 7.8 | 24 |
| 66 | Mapping of Elastic Stiffness in an $\hat{1}\pm\hat{1}^2$ Titanium Alloy using Atomic Force Acoustic Microscopy. Japanese Journal of Applied Physics, 2008, 47, 6077. | 1.5 | 23 |
| 67 | ROSETTA lander Philae â€™ soil strength analysis. Icarus, 2016, 280, 359-365. | 2.5 | 23 |
| 68 | Nanoscale imaging of elastic and piezoelectric properties of nanocrystalline lead calcium titanate. Surface Science, 2003, 532-535, 450-455. | 1.9 | 22 |
| 69 | Application of a portable nuclear magnetic resonance surface probe to porous media. Journal of Magnetic Resonance, 2007, 185, 19-27. | 2.1 | 21 |
| 70 | Dynamical and quasistatic structural relaxation paths in Pd40Ni40P20 glass. Applied Physics Letters, 2009, 95, 201903. | 3.3 | 21 |
| 71 | Active Friction Control Using Ultrasonic Vibration. , 1998, , 463-469. | | 21 |
| 72 | A Quantitative Theory of Laser-Generated Ultrasound. , 1989, , 489-496. | | 20 |

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|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Influence of an electromagnetic wave on the acoustic absorption of borosilicate glass at low temperatures. <i>Journal of Physics C: Solid State Physics</i> , 1977, 10, L161-L165. | 1.5 | 19 |
| 74 | Ultrasonic attenuation in superconducting Nb20Zr80. <i>Solid State Communications</i> , 1980, 33, 523-526. | 1.9 | 19 |
| 75 | Efficient generation of acoustic pressure waves by short laser pulses. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1989, 122, 37-41. | 5.6 | 19 |
| 76 | Measurement of mechanical properties of nanoscaled ferrites using atomic force microscopy at ultrasonic frequencies. <i>Scripta Materialia</i> , 1999, 12, 779-782. | 0.5 | 19 |
| 77 | Measurement of elastic and anelastic properties of nanocrystalline metals. <i>Scripta Materialia</i> , 1999, 12, 811-816. | 0.5 | 19 |
| 78 | Excitation of atomic force microscope cantilever vibrations by a Schottky barrier. <i>Applied Physics Letters</i> , 2008, 92, . | 3.3 | 18 |
| 79 | Experimental Study of Laser-Generated Shear Waves Using Interferometry. <i>Research in Nondestructive Evaluation</i> , 1990, 2, 143-155. | 1.1 | 17 |
| 80 | Nanoscale ultrasonic subsurface imaging with atomic force microscopy. <i>Journal of Applied Physics</i> , 2020, 128, . | 2.5 | 17 |
| 81 | Dust Impact Monitor (SESAME-DIM) measurements at comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2015, 583, A15. | 5.1 | 16 |
| 82 | Measurement of Adhesion Strength of Bonds Using Nonlinear Acoustics. , 1996, , 1321-1328. | | 16 |
| 83 | Laser ultrasonic absorption measurement in fatigue-damaged materials. <i>Ultrasonics</i> , 2002, 40, 797-801. | 3.9 | 15 |
| 84 | Depth-sensing using AFM contact-resonance imaging and spectroscopy at the nanoscale. <i>Journal of Applied Physics</i> , 2019, 126, . | 2.5 | 15 |
| 85 | Observation of stable crack growth in Al2O3 ceramics using a scanning acoustic microscope. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1989, 122, 15-19. | 5.6 | 14 |
| 86 | On the contrast in eddy current microscopy using atomic force microscopes. <i>Surface and Interface Analysis</i> , 1999, 27, 474-481. | 1.8 | 14 |
| 87 | The SESAME/CASSE instrument listening to the MUPUS PEN insertion phase on comet 67P/Churyumov-Gerasimenko. <i>Acta Astronautica</i> , 2016, 125, 234-249. | 3.2 | 14 |
| 88 | Calculation and measurement of the ultrasonic signals generated by ablating material with a Q-switched pulse laser. <i>Applied Surface Science</i> , 1996, 96-98, 71-75. | 6.1 | 13 |
| 89 | Tomographic Reconstruction of Defects in Composite Plates Using Genetic Algorithms with Cluster Analysis. <i>Research in Nondestructive Evaluation</i> , 2011, 22, 31-60. | 1.1 | 13 |
| 90 | Elastic stiffness and damping measurements in titanium alloys using atomic force acoustic microscopy. <i>Journal of Alloys and Compounds</i> , 2016, 676, 397-406. | 5.5 | 13 |

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|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91 | Nanoscale Imaging of Mechanical Properties by Ultrasonic Force Microscopy (UFM). Acoustical Imaging, 1996, , 665-668. | 0.2 | 13 |
| 92 | High-resolution materials characterization by conventional and near-field acoustic microscopy. Ultrasonics, 1998, 36, 491-498. | 3.9 | 12 |
| 93 | CASSE " The ROSETTA Lander Comet Acoustic Surface Sounding Experiment " status of some aspects, the technical realisation and laboratory simulations. Planetary and Space Science, 2000, 48, 385-399. | 1.7 | 12 |
| 94 | Image blur in a flat-panel detector due to Compton scattering at its internal mountings. Measurement Science and Technology, 2007, 18, 1270-1277. | 2.6 | 12 |
| 95 | Reconstruction of the defect shape from lock-in thermography phase images. Quantitative InfraRed Thermography Journal, 2009, 6, 63-78. | 4.2 | 12 |
| 96 | Combinatorial synthesis of thin mixed oxide films and automated study of their piezoelectric properties. Progress in Solid State Chemistry, 2007, 35, 361-366. | 7.2 | 11 |
| 97 | Measurement of local internal friction in metallic glasses. Journal of Applied Physics, 2014, 115, 134307. | 2.5 | 11 |
| 98 | Bandwidth of inhomogeneously polarized PVDF-films and their use in the design of efficient ultrasonic transducers. Ferroelectrics, 1989, 93, 251-257. | 0.6 | 10 |
| 99 | Measurement of Adhesion Strength Using Nonlinear Acoustics. Materials Science Forum, 1996, 210-213, 783-790. | 0.3 | 10 |
| 100 | Elastic Properties of Clay Minerals Determined by Atomic Force Acoustic Microscopy Technique. Acoustical Imaging, 2007, , 409-416. | 0.2 | 10 |
| 101 | Acoustic Microscopy with Resolution in the Nm-Range. Acoustical Imaging, 1996, , 669-676. | 0.2 | 10 |
| 102 | Saturation of relaxational absorption in amorphous metals at very high acoustic powers. Journal De Physique (Paris), Lettres, 1982, 43, 695-701. | 2.8 | 10 |
| 103 | Quality assessment of bond interfaces by nonlinear ultrasonic transmission. AIP Conference Proceedings, 2000, , . | 0.4 | 9 |
| 104 | On the Contribution of Friction to the Contact Damping in Atomic Force Acoustic Microscopy. Japanese Journal of Applied Physics, 2010, 49, 120204. | 1.5 | 9 |
| 105 | Mapping of elasticity and damping in an $\hat{1}\pm + \hat{1}^2$ titanium alloy through atomic force acoustic microscopy. Beilstein Journal of Nanotechnology, 2015, 6, 767-776. | 2.8 | 9 |
| 106 | Compressive strength and elastic modulus at Agilkia on comet 67P/Churyumov-Gerasimenko derived from the SESAME/CASSE touchdown signals. Icarus, 2018, 303, 251-264. | 2.5 | 9 |
| 107 | Non-Destructive Evaluation of Engineering Ceramics by High-Frequency Acoustic Techniques. Acoustical Imaging, 1991, , 189-195. | 0.2 | 9 |
| 108 | Crack depth estimation by photoacoustic microscopy. European Physical Journal B, 1986, 64, 31-34. | 1.5 | 8 |

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|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 109 | The atomic force microscope as a near-field probe for ultrasound. <i>Thin Solid Films</i> , 1995, 264, 165-168. | 1.8 | 8 |
| 110 | Near-Field Acoustic Microscopy. <i>Europhysics News</i> , 1996, 27, 93-96. | 0.3 | 8 |
| 111 | Dust Impact Monitor (DIM) onboard Rosetta/Philae: Comparison of experimental results and the theory behind the experiment. <i>Planetary and Space Science</i> , 2013, 84, 122-130. | 1.7 | 8 |
| 112 | Fusion of visual and infrared thermography images for advanced assessment in non-destructive testing. <i>Review of Scientific Instruments</i> , 2013, 84, 064902. | 1.3 | 8 |
| 113 | Local elasticity and mobility of twin boundaries in martensitic films studied by atomic force acoustic microscopy. <i>New Journal of Physics</i> , 2014, 16, 013034. | 2.9 | 8 |
| 114 | A method for inverting the touchdown shock of the Philae lander on comet 67P/Churyumov-Gerasimenko. <i>Planetary and Space Science</i> , 2015, 106, 46-55. | 1.7 | 8 |
| 115 | A New Approach for Restoration of Eddy Current Images. <i>Journal of Nondestructive Evaluation</i> , 2001, 20, 61-72. | 2.4 | 7 |
| 116 | Size retrieval of defects in composite material with lockin thermography. <i>Journal of Physics: Conference Series</i> , 2010, 214, 012093. | 0.4 | 7 |
| 117 | The fractal nature as new frontier in microstructural characterization and relativization of scale sizes within space. <i>Modern Physics Letters B</i> , 2020, 34, 2050421. | 1.9 | 7 |
| 118 | Finite-Element Simulation of Cantilever Vibrations in Atomic Force Acoustic Microscopy. <i>Journal of Physics: Conference Series</i> , 2007, 61, 293-297. | 0.4 | 6 |
| 119 | Universal aspects of sonolubrication in amorphous and crystalline materials. <i>Journal of Applied Physics</i> , 2018, 123, 035301. | 2.5 | 6 |
| 120 | Thermal noise in contact atomic force microscopy. <i>Journal of Applied Physics</i> , 2021, 129, . | 2.5 | 6 |
| 121 | Atomic Force Microscopy at Ultrasonic Frequencies. , 2005, , 1-11. | | 6 |
| 122 | Atomic Force Microscopy with Lateral Modulation. <i>Nanoscience and Technology</i> , 2004, , 75-115. | 1.5 | 6 |
| 123 | Measurement of internal friction in polycrystalline materials using laser-generated ultrasound. <i>Journal of Alloys and Compounds</i> , 1994, 211-212, 636-639. | 5.5 | 5 |
| 124 | Calibration and Evaluation of Nonlinear Ultrasonic Transmission Measurements of Thin-Bonded Interfaces. , 2006, , 403-419. | | 5 |
| 125 | Cascade cross modulation due to the nonlinear interaction of elastic waves in samples with cracks. <i>Acoustical Physics</i> , 2008, 54, 398-406. | 1.0 | 5 |
| 126 | Functionalization of Carbon Nanotubes. , 2012, , 911-919. | | 5 |

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|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 127 | Stored Mechanical Work in Inhomogeneous Deformation Processes of a Pd-Based Bulk Metallic Glass. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2389-2392. | 2.2 | 5 |
| 128 | Conduction electrons as dissipation channel in friction experiments at the metal-metal transition of LSMO measured by contact-resonance atomic force microscopy. Applied Physics Letters, 2017, 110, 053102. | 3.3 | 5 |
| 129 | Stick-to-sliding transition in contact-resonance atomic force microscopy. Applied Physics Letters, 2018, 113, 083102. | 3.3 | 5 |
| 130 | Elastic Moduli of Nanoglasses and Melt-Spun Metallic Glasses by Ultrasonic Time-of-Flight Measurements. Transactions of the Indian Institute of Metals, 2020, 73, 1363-1371. | 1.5 | 5 |
| 131 | Acoustic behavior of the amorphous superconductor Cu ₆₀ Zr ₄₀ at very low temperatures. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1982, 109-110, 2036-2038. | 0.9 | 4 |
| 132 | Atomic force microscopy at ultrasonic frequencies. , 1994, , . | | 4 |
| 133 | Non-destructive testing of laser welds in tailored blanks using electromagnetic transducers. Nondestructive Testing and Evaluation, 2007, 22, 1-0. | 2.1 | 4 |
| 134 | Dust Impact Monitor (DIM) onboard Rosetta/Philae: Tests with ice particles as comet analog materials. Planetary and Space Science, 2014, 99, 128-135. | 1.7 | 4 |
| 135 | Dust Impact Monitor (SESAME-DIM) on-board Rosetta/Philae: Aerogel as comet analog material. Icarus, 2018, 302, 1-9. | 2.5 | 4 |
| 136 | Ultrasonic Modes in Atomic Force Microscopy. Acoustical Imaging, 2004, , 699-706. | 0.2 | 4 |
| 137 | Volume Acquisition and Visualization of High-Frequency Ultrasound Data. Acoustical Imaging, 1992, , 553-557. | 0.2 | 4 |
| 138 | Friction Force Microscopy at Ultrasonic Frequencies. , 1997, , 225-231. | | 4 |
| 139 | Reliable and simple method to measure relative changes of sound velocity automatically. Review of Scientific Instruments, 1982, 53, 1613-1614. | 1.3 | 3 |
| 140 | FREQUENCY SPECTRUM OF LASER-GENERATED ULTRASONIC WAVES. Journal De Physique Colloque, 1983, 44, C6-61-C6-65. | 0.2 | 3 |
| 141 | Quantitative Contact Spectroscopy and Imaging by Atomic-Force Acoustic Microscopy. Materials Research Society Symposia Proceedings, 1999, 591, 176. | 0.1 | 3 |
| 142 | Modeling of the ablation source in laser-ultrasonics. AIP Conference Proceedings, 2000, , . | 0.4 | 3 |
| 143 | Extension of frequency spectrum methods for phase velocity measurements in ultrasonic testing. Review of Scientific Instruments, 2000, 71, 3470-3473. | 1.3 | 3 |
| 144 | Ultrasonic radiation in dynamic force microscopy. Applied Physics A: Materials Science and Processing, 2001, 72, S87-S92. | 2.3 | 3 |

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|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 145 | Magnetization density calculation for diffusing spins. Physical Review B, 2004, 69, . | 3.2 | 3 |
| 146 | Non-Destructive Testing of Die-Casting Components of Non-Ferrous Metals for Surface-Near Porosity by High-Frequency Ultrasound. Acoustical Imaging, 2008, , 223-232. | 0.2 | 3 |
| 147 | Tomographic Reconstruction of Elastic Constants in Composite Materials Using Numerical and Experimental Laser Ultrasonic Data. Research in Nondestructive Evaluation, 2010, 21, 61-90. | 1.1 | 3 |
| 148 | Finite Element Methods for Computational Nano-optics. , 2012, , 837-843. | | 3 |
| 149 | Imaging of the Ferroelectric Domains Pattern in the Ultrasonic Piezo-Mode. Acoustical Imaging, 2002, , 191-198. | 0.2 | 3 |
| 150 | A new sample holder for excitation of transverse sound waves. Applied Physics Berlin, 1974, 5, 281-282. | 1.4 | 2 |
| 151 | Self-tracking ultrasonic inspection. Industrial Robot, 1995, 22, 25-27. | 2.1 | 2 |
| 152 | Determination of the Elastic Behaviour of Carbon-Reinforced Carbon Materials Using Laser-Ultrasound and Theoretical Modeling. Materials Science Forum, 1996, 210-213, 227-234. | 0.3 | 2 |
| 153 | Surface analysis by nondestructive testing techniques. Fresenius' Journal of Analytical Chemistry, 1997, 358, 3-9. | 1.5 | 2 |
| 154 | Modeling of Graded 1-3 Composite Piezoelectric Transducers. Materials Science Forum, 1999, 308-311, 521-526. | 0.3 | 2 |
| 155 | Detection of laser excited surface acoustic waves by infrared radiation. Review of Scientific Instruments, 2000, 71, 1429-1432. | 1.3 | 2 |
| 156 | Values of mineral modulus of clay. , 2005, , . | | 2 |
| 157 | Surface mechanical properties of comet 67P. Japanese Journal of Applied Physics, 2019, 58, SG0801. | 1.5 | 2 |
| 158 | Rosetta Lander (â€œPhilaeâ€) Investigations. , 2009, , 1-171. | | 2 |
| 159 | Observation of Microcrack Damage in Al ₂ O ₃ -Ceramics by Scanning Acoustic Microscopy and Small Angle X-Ray Scattering. Acoustical Imaging, 1992, , 691-696. | 0.2 | 2 |
| 160 | Materials Characterization Using High-Frequency Atomic Force Microscopy and Friction Force Microscopy. , 1997, , 1391-1398. | | 2 |
| 161 | Combinatorial Synthesis of Thin Mixed Oxide-Films and Examinations of Their Piezoelectricity by Ultrasonic Piezo-Mode Imaging. , 2007, , 80-83. | | 2 |
| 162 | Non-contact and Nondestructive Evaluation of Grain-size in Thin Metal Sheets. , 1989, , 337-344. | | 2 |

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|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 163 | Image Acquisition and Analysis of Hazardous Biological Material in Air. , 2007, , 1-14. | | 2 |
| 164 | Saturation of the Acoustic Attenuation in Borosilicate Glass by Microwaves at Low Temperatures. , 1976, , . | | 1 |
| 165 | Recent progress in high-frequency ultrasonics in non-destructive testing and acoustic microscopy. Nuclear Engineering and Design, 1991, 128, 83-89. | 1.7 | 1 |
| 166 | Non-linear acoustics and adhesion measurements of interfaces: techniques for the inspection of bonded structures. , 1997, , . | | 1 |
| 167 | Nondestructive characterization of PZT materials for sensor and actuator applications. AIP Conference Proceedings, 2000, , . | 0.4 | 1 |
| 168 | Surface acoustic waves go under the microscope. Physics World, 2001, 14, 25-26. | 0.0 | 1 |
| 169 | Imaging of Ferroelectric Domains by Atomic Force Acoustic Microscopy. , 2002, , 253-260. | | 1 |
| 170 | <title>Atomic force microscopy at ultrasonic frequencies</title>. , 2002, 4703, 53. | | 1 |
| 171 | Combining spectral material properties in the infrared and the visible spectral range for qualification and nondestructive evaluation of components. , 2012, , . | | 1 |
| 172 | Fullerenes for Drug Delivery. , 2012, , 898-911. | | 1 |
| 173 | Ultrasonic absorption in fatigued materials. , 2013, , . | | 1 |
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