Xuelin Wang

List of Publications by Year
in descending order

59 papers	1,744 citations	218677 26 h-index	315739 38 g-index
60 all docs	60 docs citations	60 times ranked	1167 citing authors

#	Article	IF	Citations
1	Modeling of Sound Transmission from Ear Canal to Cochlea. Annals of Biomedical Engineering, 2007, 35, 2180-2195.	2.5	143
2	Effect of machining-induced surface residual stress on initiation of stress corrosion cracking in 316 austenitic stainless steel. Corrosion Science, 2016, 108, 173-184.	6.6	116
3	Analytical prediction of cutting forces in orthogonal cutting using unequal division shear-zone model. International Journal of Advanced Manufacturing Technology, 2011, 54, 431-443.	3.0	94
4	Predictive modelling of microstructure changes, micro-hardness and residual stress in machining of 304 austenitic stainless steel. International Journal of Machine Tools and Manufacture, 2018, 130-131, 36-48.	13.4	73
5	Effect of surface machining on the corrosion behaviour of 316 austenitic stainless steel in simulated PWR water. Corrosion Science, 2017, 126, 104-120.	6.6	61
6	Finite-element analysis of middle-ear pressure effects on static and dynamic behavior of human ear. Journal of the Acoustical Society of America, 2007, 122, 906-917.	1.1	55
7	Pillared graphene as an ultra-high sensitivity mass sensor. Scientific Reports, 2017, 7, 14012.	3.3	49
8	A parallel way for computing eigenvector sensitivity of asymmetric damped systems with distinct and repeated eigenvalues. Mechanical Systems and Signal Processing, 2012, 30, 61-77.	8.0	48
9	Multifield coupled finite element analysis for sound transmission in otitis media with effusion. Journal of the Acoustical Society of America, 2007, 122, 3527-3538.	1.1	45
10	Design sensitivity and Hessian matrix of generalized eigenproblems. Mechanical Systems and Signal Processing, 2014, 43, 272-294.	8.0	44
11	Thermoelastic damping of graphene nanobeams by considering the size effects of nanostructure and heat conduction. Journal of Thermal Stresses, 2018, 41, 1182-1200.	2.0	43
12	AN ANALYTICAL MODEL OF OBLIQUE CUTTING WITH APPLICATION TO END MILLING. Machining Science and Technology, 2011, 15, 453-484.	2.5	38
13	Analytical modeling of chatter vibration in orthogonal cutting using a predictive force model. International Journal of Mechanical Sciences, 2014, 88, 145-153.	6.7	37
14	A totally implantable hearing system – Design and function characterization in 3D computational model and temporal bones. Hearing Research, 2010, 263, 138-144.	2.0	35
15	Damping characteristic of Ni-coated carbon nanotube/copper composite. Materials and Design, 2017, 133, 455-463.	7.0	34
16	Experimental Demonstration of Acoustic Valley Hall Topological Insulators with the Robust Selection of C_{3v}-Symmetric Scatterers. Physical Review Applied, 2019, 12, .	3.8	34
17	Numerical methods for evaluating the sensitivity of element modal strain energy. Finite Elements in Analysis and Design, 2013, 64, 13-23.	3.2	33
18	An analytical force model for ball-end milling based on a predictive machining theory considering cutter runout. International Journal of Advanced Manufacturing Technology, 2016, 84, 2449-2460.	3.0	33

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19	A study on design sensitivity analysis for general nonlinear eigenproblems. Mechanical Systems and Signal Processing, 2013, 34, 88-105.	8.0	32
20	Eigensensitivity analysis of damped systems with distinct and repeated eigenvalues. Finite Elements in Analysis and Design, 2013, 72, 21-34.	3.2	32
21	Enhanced interfacial strength of carbon nanotube/copper nanocomposites via Ni-coating: Molecular-dynamics insights. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 88, 259-264.	2.7	32
22	Improved approximate methods for calculating frequency response function matrix and response of MDOF systems with viscoelastic hereditary terms. Journal of Sound and Vibration, 2013, 332, 3945-3956.	3.9	31
23	Analytical Modelling of Milling Forces for Helical End Milling Based on a Predictive Machining Theory. Procedia CIRP, 2015, 31, 258-263.	1.9	31
24	Harmonic response calculation of viscoelastic structures using classical normal modes: An iterative method. Computers and Structures, 2014, 133, 39-50.	4.4	30
25	Diamond nanothreads as novel nanofillers for cross-linked epoxy nanocomposites. Composites Science and Technology, 2019, 174, 84-93.	7.8	30
26	A hybrid expansion method for frequency response functions of non-proportionally damped systems. Mechanical Systems and Signal Processing, 2014, 42, 31-41.	8.0	29
27	New insights into interface interactions of CNT-reinforced epoxy nanocomposites. Composites Science and Technology, 2021, 204, 108638.	7.8	29
28	Design sensitivity analysis of dynamic response of nonviscously damped systems. Mechanical Systems and Signal Processing, 2013, 41, 613-638.	8.0	27
29	Eigensensitivity Analysis for Asymmetric Nonviscous Systems. AIAA Journal, 2013, 51, 738-741.	2.6	25
30	Quantitative Studies of Machining-Induced Microstructure Alteration and Plastic Deformation in AISI 316 Stainless Steel Using EBSD. Journal of Materials Engineering and Performance, 2018, 27, 434-446.	2.5	25
31	3D finite element model of the chinchilla ear for characterizing middle ear functions. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1263-1277.	2.8	23
32	Combined effects of machining-induced residual stress and external load on SCC initiation and early propagation of 316 stainless steel in high temperature high pressure water. Corrosion Science, 2021, 190, 109644.	6.6	22
33	Motion of tympanic membrane in guinea pig otitis media model measured by scanning laser Doppler vibrometry. Hearing Research, 2016, 339, 184-194.	2.0	21
34	Finite element analysis of the coupling between ossicular chain and mass loading for evaluation of implantable hearing device. Hearing Research, 2011, 280, 48-57.	2.0	20
35	Eliminating the modal truncation problem encountered in frequency responses of viscoelastic systems. Journal of Sound and Vibration, 2014, 333, 1182-1192.	3.9	20
36	Pillared graphene as excellent reinforcement for polymer-based nanocomposites. Materials and Design, 2018, 147, 11-18.	7.0	20

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37	An ontology-based method for knowledge integration in a collaborative design environment. International Journal of Advanced Manufacturing Technology, 2007, 34, 843-856.	3.0	17
38	Interface mechanical properties of graphene reinforced copper nanocomposites. Materials Research Express, 2017, 4, 115020.	1.6	17
39	Valleylike Edge States in Chiral Phononic Crystals with Dirac Degeneracies beyond High-Symmetry Points and Boundaries of Brillouin Zones. Physical Review Applied, 2020, 14, .	3.8	17
40	Investigation of Stress Corrosion Cracking Initiation in Machined 304 Austenitic Stainless Steel in Magnesium Chloride Environment. Journal of Materials Engineering and Performance, 2020, 29, 191-204.	2.5	17
41	Finite element modelling of human auditory periphery including a feed-forward amplification of the cochlea. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1096-1107.	1.6	15
42	Direct way of computing the variability of modal assurance criteria. Mechanics Research Communications, 2014, 55, 53-58.	1.8	15
43	Importance of Interface in the Coarse-Grained Model of CNT /Epoxy Nanocomposites. Nanomaterials, 2019, 9, 1479.	4.1	15
44	Predictions of middle-ear and passive cochlear mechanics using a finite element model of the pediatric ear. Journal of the Acoustical Society of America, 2016, 139, 1735-1746.	1.1	14
45	Dynamic Properties of Human Tympanic Membrane After Exposure to Blast Waves. Annals of Biomedical Engineering, 2017, 45, 2383-2394.	2.5	14
46	An accelerated subspace iteration method for generalized eigenproblems. Computers and Structures, 1999, 71, 293-301.	4.4	12
47	Modeling temperature of non-equidistant primary shear zone in metal cutting. International Journal of Thermal Sciences, 2013, 73, 38-45.	4.9	12
48	Dynamic Properties of Tympanic Membrane in a Chinchilla Otitis Media Model Measured With Acoustic Loading. Journal of Biomechanical Engineering, 2015, 137, 081006.	1.3	12
49	Effect of residual stress on the stress corrosion cracking in boiling magnesium chloride solution of austenite stainless steel. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 1572-1583.	1.5	11
50	Dynamical bifurcation and synchronization of two nonlinearly coupled fluid-conveying pipes. Nonlinear Dynamics, 2015, 79, 2715-2734.	5.2	9
51	Efficient and accurate calculation of sensitivity of damped eigensystems. Computers and Structures, 2015, 146, 163-175.	4.4	9
52	Accurate method for harmonic responses of non-classically damped systems in the middle frequency range. JVC/Journal of Vibration and Control, 2016, 22, 426-441.	2.6	9
53	Inclusion of Higher Modes in the Eigensensitivity of Nonviscously Damped Systems. AIAA Journal, 2014, 52, 1316-1322.	2.6	8
54	Modeling microstructure of incudostapedial joint and the effect on cochlear input. AIP Conference Proceedings, 2015, , .	0.4	6

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55	Complex modulus of round window membrane over auditory frequencies in normal and otitis media chinchilla ears. International Journal of Experimental and Computational Biomechanics, 2015, 3, 27.	0.4	6
56	Single setup multiple delivery model of JIT system. International Journal of Advanced Manufacturing Technology, 2007, 33, 1222-1228.	3.0	5
57	Surface Motion of Tympanic Membrane in a Chinchilla Model of Acute Otitis Media. JARO - Journal of the Association for Research in Otolaryngology, 2018, 19, 619-635.	1.8	5
58	Effects of Cryogenic Milling on Stress Corrosion Cracking Resistance of AISI 316L Austenitic Stainless Steel. Journal of Materials Engineering and Performance, 2020, 29, 7104-7114.	2.5	3
59	Dynamic property changes in stapedial annular ligament associated with acute otitis media in the chinchilla. Medical Engineering and Physics, 2017, 40, 65-74.	1.7	2