James Windmill

List of Publications by Year
in descending order

97 papers	1,787 citations	331670 21 h-index	302126 39 g-index
101 all docs	101 docs citations	101 times ranked	1881 citing authors

#	Article	IF	Citations
1	I beg your pardon? Acoustic behaviour of a wild solitary common dolphin who interacts with harbour porpoises. Bioacoustics, 2022, 31, 517-534.	1.7	2
2	Non-Destructive Testing of Composite Fiber Materials With Hyperspectral Imagingâ€"Evaluative Studies in the EU H2020 FibreEUse Project. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	4.7	9
3	Non-destructive Analysis of the Mechanical Properties of 3D-Printed Materials. Journal of Nondestructive Evaluation, 2022, 41, 22.	2.4	5
4	Characterising the response of novel 3D printed CNT electrodes to the virulence factor pyocyanin. Journal of Electroanalytical Chemistry, 2022, 909, 116149.	3.8	5
5	Voxel based method for predictive modelling of solidification and stress in digital light processing based additive manufacture. Soft Matter, 2021, 17, 1881-1887.	2.7	16
6	Fabrication and characterization of a novel photoactive-based (0â€"3) piezocomposite material with potential as a functional material for additive manufacturing of piezoelectric sensors. Journal of Materials Science: Materials in Electronics, 2021, 32, 11883-11892.	2.2	2
7	Additive Manufacture of Small-Scale Metamaterial Structures for Acoustic and Ultrasonic Applications. Micromachines, 2021, 12, 634.	2.9	10
8	Stakeholder considerations in remanufacturability decision-making: Findings from a systematic literature review. Journal of Cleaner Production, 2021, 298, 126709.	9.3	12
9	Hierarchical analysis of factors influencing acceptance of remanufactured medical devices. Cleaner and Responsible Consumption, 2021, 2, 100017.	3.0	3
10	Generating characteristic acoustic impedances with hydrogel based phononic crystals for use in ultrasonic transducer matching layers. , 2021, , .		0
11	Additive Manufacturing (AM) Capacitive Acoustic and Ultrasonic Transducers Using a Commercial Direct Light Processing (DLP) Printer. IEEE Sensors Journal, 2020, 20, 1770-1777.	4.7	5
12	Global and site-specific analysis of bone in a rat model of spinal cord injury-induced osteoporosis. Bone Reports, 2020, 12, 100233.	0.4	6
13	Component shape optimisation for enhanced non-destructive testing. Materials and Design, 2020, 195, 109041.	7.0	3
14	Resilin Distribution and Sexual Dimorphism in the Midge Antenna and Their Influence on Frequency Sensitivity. Insects, 2020, 11, 520.	2.2	6
15	Engineered 3D hydrogels with full-length fibronectin that sequester and present growth factors. Biomaterials, 2020, 252, 120104.	11.4	64
16	Physiological Basis of Noise-Induced Hearing Loss in a Tympanal Ear. Journal of Neuroscience, 2020, 40, 3130-3140.	3.6	12
17	A Novel 3D-Printed (0-3) Piezocomposite Material for Sensing Applications. , 2020, , .		0
18	Fabrication and Characterization of 3D Printed Thin Plates for Acoustic Metamaterials Applications. IEEE Sensors Journal, 2019, 19, 10365-10372.	4.7	2

#	Article	IF	Citations
19	Enhancing Acoustic Sensory Responsiveness by Exploiting Bio-inspired Feedback Computation. , 2019, , .		2
20	Transmission of the frequency components of the vibrational signal of the glassy-winged sharpshooter, Homalodisca vitripennis, within and between grapevines. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2019, 205, 783-791.	1.6	12
21	Piezoelectric microphone via a digital light processing 3D printing process. Materials and Design, 2019, 165, 107593.	7.0	58
22	High Efficiency BMP-2 Coatings: Nanoscale Coatings for Ultralow Dose BMP-2-Driven Regeneration of Critical-Sized Bone Defects (Adv. Sci. 2/2019). Advanced Science, 2019, 6, 1970009.	11.2	2
23	Material stiffness variation in mosquito antennae. Journal of the Royal Society Interface, 2019, 16, 20190049.	3.4	24
24	Porpoise click classifier (PorCC): A high-accuracy classifier to study harbour porpoises (Phocoena) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.1	4
25	3D printed microneedle patches using stereolithography (SLA) for intradermal insulin delivery. Materials Science and Engineering C, 2019, 102, 743-755.	7.3	171
26	Rapid prototyped microvessel flow phantom for controlled investigation of ultrasound-mediated targeted drug delivery. , 2019, , .		1
27	An in-air ultrasonic acoustic beam shifter metamaterial. , 2019, , .		1
28	3D-printed bioinspired acoustic sensors for frequency decomposition. , 2019, , .		0
29	Nanoscale Coatings for Ultralow Dose BMPâ€2â€Driven Regeneration of Criticalâ€Sized Bone Defects. Advanced Science, 2019, 6, 1800361.	11.2	50
30	Ultrasonic bulk wave measurements on composite using fiber from recycled CFRP. AIP Conference Proceedings, 2018, , .	0.4	0
31	Extreme call amplitude from near-field acoustic wave coupling in the stridulating water insectMicronecta scholtzi(Micronectinae). Journal of the Royal Society Interface, 2018, 15, 20170768.	3.4	3
32	Bio-inspired 3D-printed piezoelectric device for acoustic frequency selection. Sensors and Actuators A: Physical, 2018, 271, 1-8.	4.1	17
33	3D-printing polymer-based permanent magnets. Materials and Design, 2018, 153, 120-128.	7.0	48
34	Frequency doubling by active in vivo motility of mechanosensory neurons in the mosquito ear. Royal Society Open Science, 2018, 5, 171082.	2.4	8
35	â€œPipe Organâ€•Inspired Air-Coupled Ultrasonic Transducers With Broader Bandwidth. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1873-1881.	3.0	9
36	Insect-inspired acoustic micro-sensors. Current Opinion in Insect Science, 2018, 30, 33-38.	4.4	17

#	Article	IF	Citations
37	Incorporating remanufacturing into the end-of-life vehicles directive: current presence and the waste problem. Journal of Remanufacturing, 2018, 8, 23-37.	2.7	8
38	A Low-Frequency Dual-Band Operational Microphone Mimicking the Hearing Property of Ormia Ochracea. Journal of Microelectromechanical Systems, 2018, 27, 667-676.	2.5	22
39	Enhancing the Sound Absorption of Small-Scale 3-D Printed Acoustic Metamaterials Based on Helmholtz Resonators. IEEE Sensors Journal, 2018, 18, 7949-7955.	4.7	19
40	Active Hearing Mechanisms Inspire Adaptive Amplification in an Acoustic Sensor System. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 655-664.	4.0	2
41	Simple Ears Inspire Frequency Agility in an Engineered Acoustic Sensor System. IEEE Sensors Journal, 2017, 17, 7298-7305.	4.7	6
42	Hearing on the fly: the effects of wing position on noctuid moth hearing. Journal of Experimental Biology, 2017, 220, 1952-1955.	1.7	1
43	3D printed small-scale acoustic metamaterials based on Helmholtz resonators with tuned overtones. , 2017, , .		7
44	Measured beam patterns of biomimetic receivers improve localisation performance of an ultrasonic sonar: Biomimetic receivers improve ultrasonic sonar localisation. , 2017, , .		0
45	Development of a biologically inspired MEMS microphone. , 2017, , .		1
46	Bioinspired 3D-printed piezoelectric device for acoustic frequency separation. , 2017, , .		4
47	â€œPipe organâ€•Air-coupled broad bandwidth transducer. , 2017, , .		0
48	â€œPipe organâ€•air-coupled broad bandwidth transducer. , 2017, , .		0
49	Influence of Microphone Housing on the Directional Response of Piezoelectric MEMS Microphones Inspired by Ormia Ochracea. IEEE Sensors Journal, 2017, 17, 5529-5536.	4.7	20
50	Housing influence on multi-band directional MEMS microphones inspired by Ormia ochracea. , 2016, , .		4
51	The anti-bat strategy of ultrasound absorption: The wings of nocturnal moths (Bombycoidea:) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.2	4
52	Directional Receiver for Biomimetic Sonar System. Physics Procedia, 2016, 87, 24-28.	1.2	1
53	Adaptive fusion of color and spatial features for noise-robust retrieval of colored logo and trademark images. Multidimensional Systems and Signal Processing, 2016, 27, 945-968.	2.6	17
54	An analysis of end-of-life terminology in the carbon fiber reinforced plastic industry. International Journal of Sustainable Engineering, 2016, 9, 130-140.	3.5	10

#	Article	IF	Citations
55	Evolution of directional hearing in moths via conversion of bat detection devices to asymmetric pressure gradient receivers. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E7740-E7748.	7.1	6
56	Airborne broad-beam emitter from a capacitive transducer and a cylindrical structure. , 2016, , .		2
57	Mechanical Specializations of Insect Ears. Springer Handbook of Auditory Research, 2016, , 125-157.	0.7	15
58	Distribution of sound pressure around a singing cricket: radiation pattern and asymmetry in the sound field. Bioacoustics, 2016, 25, 161-176.	1.7	3
59	Unpicking the signal thread of the sector web spiderZygiella x-notata. Journal of the Royal Society Interface, 2015, 12, 20150633.	3.4	21
60	Features in geometric receiver shapes modelling bat-like directivity patterns. Bioinspiration and Biomimetics, 2015, 10, 056007.	2.9	8
61	Optimization of a bio-inspired sound localization sensor for high directional sensitivity. , 2015, , .		1
62	Hearing ability decreases in aging locusts. Journal of Experimental Biology, 2015, 218, 1990-4.	1.7	7
63	Fusion of Dominant Colour and Spatial Layout Features for Effective Image Retrieval of Coloured Logos and Trademarks. , 2015, , .		12
64	Hearing in the crepuscular owl butterfly (Caligo eurilochus, Nymphalidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2014, 200, 891-898.	1.6	7
65	Listening to the environment: hearing differences from an epigenetic effect in solitarious and gregarious locusts. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141693.	2.6	13
66	The Speed of Sound in Silk: Linking Material Performance to Biological Function. Advanced Materials, 2014, 26, 5179-5183.	21.0	41
67	Temperature effects on the tympanal membrane and auditory receptor neurons in the locust. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2014, 200, 837-847.	1.6	5
68	A network model to assist â€˜design for remanufactureâ€™ integration into the design process. Journal of Cleaner Production, 2014, 64, 244-253.	9.3	37
69	Directional acoustic response of a silicon discâ€based microelectromechanical systems structure. Micro and Nano Letters, 2014, 9, 276-279.	1.3	6
70	Shrinking Wings for Ultrasonic Pitch Production: Hyperintense Ultra-Short-Wavelength Calls in a New Genus of Neotropical Katydids (Orthoptera: Tettigoniidae). PLoS ONE, 2014, 9, e98708.	2.5	32
71	Design for remanufacturing in China: a case study of electrical and electronic equipment. Journal of Remanufacturing, 2013, 3, 1.	2.7	44
72	An investigation of acoustic beam patterns for the sonar localization problem using a beam based method. Journal of the Acoustical Society of America, 2013, 133, 4044-4053.	1.1	2

#	Article	IF	Citations
73	Integrating design for remanufacture into the design process: the operational factors. Journal of Cleaner Production, 2013, 39, 200-208.	9.3	59
74	A beam based method for target localization: Inspiration from bats' directivity and binaural reception for ultrasonic sonar. Journal of the Acoustical Society of America, 2013, 133, 4077-4086.	1.1	9
75	Extremely high frequency sensitivity in a â€˜simpleâ€™ ear. Biology Letters, 2013, 9, 20130241.	2.3	26
76	A new sonar localization strategy using receiver beam characteristics. , 2013, , .		0
77	Response to â€˜Measurement of sensitive distortion-product otoacoustic emissions in insect tympanal organsâ€™. Journal of Experimental Biology, 2012, 215, 567-567.	1.7	1
78	Discovery of a Lipid Synthesising Organ in the Auditory System of an Insect. PLoS ONE, 2012, 7, e51486.	2.5	9
79	So Small, So Loud: Extremely High Sound Pressure Level from a Pygmy Aquatic Insect (Corixidae,) Tj ETQq1 1 0.784314 rgBT /Overloc	2.5	37
80	Design for remanufacture: a literature review and future research needs. Journal of Cleaner Production, 2011, 19, 2004-2014.	9.3	287
81	No evidence for DPOAEs in the mechanical motion of the locust tympanum. Journal of Experimental Biology, 2011, 214, 3165-3172.	1.7	10
82	Cicada ear geometry: species and sex effects. Biological Journal of the Linnean Society, 2010, 101, 922-934.	1.6	4
83	Sound emission and reception tuning in three cicada species sharing the same habitat. Journal of the Acoustical Society of America, 2010, 127, 1681-1688.	1.1	14
84	Synchrony through twice-frequency forcing for sensitive and selective auditory processing. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10177-10182.	7.1	38
85	Hearing in tsetse flies? Morphology and mechanics of a putative auditory organ. Bulletin of Entomological Research, 2009, 99, 107-119.	1.0	6
86	Mechanical phase shifters for coherent acoustic radiation in the stridulating wings of crickets: the plectrum mechanism. Journal of Experimental Biology, 2009, 212, 257-269.	1.7	41
87	Auditory mechanics and sensitivity in the tropical butterfly Morpho peleides (Papilionoidea,) Tj ETQq1 1 0.784314 rgBT /Overlo	1.7	12
88	The next step in cicada audition: measuring pico-mechanics in the cicada's ear. Journal of Experimental Biology, 2009, 212, 4079-4083.	1.7	7
89	Time-resolved tympanal mechanics of the locust. Journal of the Royal Society Interface, 2008, 5, 1435-1443.	3.4	14
90	A new cellular electret sensor-actuator. , 2008, , .		0

#	Article	IF	Citations
91	Sexual dimorphism in auditory mechanics: tympanal vibrations ofCicada orni. Journal of Experimental Biology, 2008, 211, 2379-2387.	1.7	18
92	Nanomechanical and electrical characterization of a new cellular electret sensorâ€“actuator. Nanotechnology, 2008, 19, 035506.	2.6	22
93	Mechanics of a `simple' ear: tympanal vibrations in noctuid moths. Journal of Experimental Biology, 2007, 210, 2637-2648.	1.7	31
94	Keeping up with Bats: Dynamic Auditory Tuning in a Moth. Current Biology, 2006, 16, 2418-2423.	3.9	45
95	Tuning the drum: the mechanical basis for frequency discrimination in a Mediterranean cicada. Journal of Experimental Biology, 2006, 209, 4115-4128.	1.7	36
96	Tympanal travelling waves in migratory locusts. Journal of Experimental Biology, 2005, 208, 157-168.	1.7	79
97	Assessing the Levels of Functional Adaptation: Finite Element Analysis Reveals Species, Hybrid, and Sexual Variation in the Biomechanics of African Cichlid Mandibles. Evolutionary Biology, 0, , 1.	1.1	0