

James Windmill

List of Publications by Year in descending order

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Version: 2024-02-01

97
papers

1,787
citations

331259

21
h-index

315357

38
g-index

101
all docs

101
docs citations

101
times ranked

1881
citing authors

#	ARTICLE	IF	CITATIONS
1	Design for remanufacture: a literature review and future research needs. <i>Journal of Cleaner Production</i> , 2011, 19, 2004-2014.	4.6	287
2	3D printed microneedle patches using stereolithography (SLA) for intradermal insulin delivery. <i>Materials Science and Engineering C</i> , 2019, 102, 743-755.	3.8	171
3	Tympanal travelling waves in migratory locusts. <i>Journal of Experimental Biology</i> , 2005, 208, 157-168.	0.8	79
4	Engineered 3D hydrogels with full-length fibronectin that sequester and present growth factors. <i>Biomaterials</i> , 2020, 252, 120104.	5.7	64
5	Integrating design for remanufacture into the design process: the operational factors. <i>Journal of Cleaner Production</i> , 2013, 39, 200-208.	4.6	59
6	Piezoelectric microphone via a digital light processing 3D printing process. <i>Materials and Design</i> , 2019, 165, 107593.	3.3	58
7	Nanoscale Coatings for Ultralow Dose BMP-Driven Regeneration of Critical-Sized Bone Defects. <i>Advanced Science</i> , 2019, 6, 1800361.	5.6	50
8	3D-printing polymer-based permanent magnets. <i>Materials and Design</i> , 2018, 153, 120-128.	3.3	48
9	Keeping up with Bats: Dynamic Auditory Tuning in a Moth. <i>Current Biology</i> , 2006, 16, 2418-2423.	1.8	45
10	Design for remanufacturing in China: a case study of electrical and electronic equipment. <i>Journal of Remanufacturing</i> , 2013, 3, 1.	1.6	44
11	Mechanical phase shifters for coherent acoustic radiation in the stridulating wings of crickets: the plectrum mechanism. <i>Journal of Experimental Biology</i> , 2009, 212, 257-269.	0.8	41
12	The Speed of Sound in Silk: Linking Material Performance to Biological Function. <i>Advanced Materials</i> , 2014, 26, 5179-5183.	11.1	41
13	Synchrony through twice-frequency forcing for sensitive and selective auditory processing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 10177-10182.	3.3	38
14	So Small, So Loud: Extremely High Sound Pressure Level from a Pygmy Aquatic Insect (Corixidae). <i>PLoS ONE</i> , 2014, 9, e98708.	1.1	37
15	A network model to assist design for remanufacture™ integration into the design process. <i>Journal of Cleaner Production</i> , 2014, 64, 244-253.	4.6	37
16	Tuning the drum: the mechanical basis for frequency discrimination in a Mediterranean cicada. <i>Journal of Experimental Biology</i> , 2006, 209, 4115-4128.	0.8	36
17	Shrinking Wings for Ultrasonic Pitch Production: Hyperintense Ultra-Short-Wavelength Calls in a New Genus of Neotropical Katydid (Orthoptera: Tettigoniidae). <i>PLoS ONE</i> , 2014, 9, e98708.	1.1	32
18	Mechanics of a 'simple' ear: tympanal vibrations in noctuid moths. <i>Journal of Experimental Biology</i> , 2007, 210, 2637-2648.	0.8	31

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19	Extremely high frequency sensitivity in a "simple" ear. <i>Biology Letters</i> , 2013, 9, 20130241.	1.0	26
20	Material stiffness variation in mosquito antennae. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190049.	1.5	24
21	Nanomechanical and electrical characterization of a new cellular electret sensor-actuator. <i>Nanotechnology</i> , 2008, 19, 035506.	1.3	22
22	A Low-Frequency Dual-Band Operational Microphone Mimicking the Hearing Property of Ormia Ochracea. <i>Journal of Microelectromechanical Systems</i> , 2018, 27, 667-676.	1.7	22
23	Unpicking the signal thread of the sector web spider <i>Zygiella x-notata</i> . <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150633.	1.5	21
24	Influence of Microphone Housing on the Directional Response of Piezoelectric MEMS Microphones Inspired by <i>Ormia Ochracea</i> . <i>IEEE Sensors Journal</i> , 2017, 17, 5529-5536.	2.4	20
25	Enhancing the Sound Absorption of Small-Scale 3-D Printed Acoustic Metamaterials Based on Helmholtz Resonators. <i>IEEE Sensors Journal</i> , 2018, 18, 7949-7955.	2.4	19
26	Sexual dimorphism in auditory mechanics: tympanal vibrations of <i>Cicada orni</i> . <i>Journal of Experimental Biology</i> , 2008, 211, 2379-2387.	0.8	18
27	Adaptive fusion of color and spatial features for noise-robust retrieval of colored logo and trademark images. <i>Multidimensional Systems and Signal Processing</i> , 2016, 27, 945-968.	1.7	17
28	Bio-inspired 3D-printed piezoelectric device for acoustic frequency selection. <i>Sensors and Actuators A: Physical</i> , 2018, 271, 1-8.	2.0	17
29	Insect-inspired acoustic micro-sensors. <i>Current Opinion in Insect Science</i> , 2018, 30, 33-38.	2.2	17
30	Voxel based method for predictive modelling of solidification and stress in digital light processing based additive manufacture. <i>Soft Matter</i> , 2021, 17, 1881-1887.	1.2	16
31	Mechanical Specializations of Insect Ears. <i>Springer Handbook of Auditory Research</i> , 2016, , 125-157.	0.3	15
32	Time-resolved tympanal mechanics of the locust. <i>Journal of the Royal Society Interface</i> , 2008, 5, 1435-1443.	1.5	14
33	Sound emission and reception tuning in three cicada species sharing the same habitat. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 1681-1688.	0.5	14
34	Listening to the environment: hearing differences from an epigenetic effect in solitary and gregarious locusts. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20141693.	1.2	13
35	Auditory mechanics and sensitivity in the tropical butterfly <i>Morpho peleides</i> (Papilionoidea). <i>Tj ETQq1 1 0.784314 rgBTj/Overlock</i>	0.8	12
36	Fusion of Dominant Colour and Spatial Layout Features for Effective Image Retrieval of Coloured Logos and Trademarks. , 2015, , .		12

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37	Transmission of the frequency components of the vibrational signal of the glassy-winged sharpshooter, <i>Homalodisca vitripennis</i> , within and between grapevines. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2019, 205, 783-791.	0.7	12
38	Physiological Basis of Noise-Induced Hearing Loss in a Tympanic Ear. <i>Journal of Neuroscience</i> , 2020, 40, 3130-3140.	1.7	12
39	Stakeholder considerations in remanufacturability decision-making: Findings from a systematic literature review. <i>Journal of Cleaner Production</i> , 2021, 298, 126709.	4.6	12
40	No evidence for DPOAEs in the mechanical motion of the locust tympanum. <i>Journal of Experimental Biology</i> , 2011, 214, 3165-3172.	0.8	10
41	An analysis of end-of-life terminology in the carbon fiber reinforced plastic industry. <i>International Journal of Sustainable Engineering</i> , 2016, 9, 130-140.	1.9	10
42	Additive Manufacture of Small-Scale Metamaterial Structures for Acoustic and Ultrasonic Applications. <i>Micromachines</i> , 2021, 12, 634.	1.4	10
43	A beam based method for target localization: Inspiration from bats' directivity and binaural reception for ultrasonic sonar. <i>Journal of the Acoustical Society of America</i> , 2013, 133, 4077-4086.	0.5	9
44	“Pipe Organ”-Inspired Air-Coupled Ultrasonic Transducers With Broader Bandwidth. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2018, 65, 1873-1881.	1.7	9
45	Discovery of a Lipid Synthesising Organ in the Auditory System of an Insect. <i>PLoS ONE</i> , 2012, 7, e51486.	1.1	9
46	Non-Destructive Testing of Composite Fiber Materials With Hyperspectral Imaging “Evaluative Studies in the EU H2020 FibreEUse Project. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-13.	2.4	9
47	Features in geometric receiver shapes modelling bat-like directivity patterns. <i>Bioinspiration and Biomimetics</i> , 2015, 10, 056007.	1.5	8
48	Frequency doubling by active <i>in vivo</i> motility of mechanosensory neurons in the mosquito ear. <i>Royal Society Open Science</i> , 2018, 5, 171082.	1.1	8
49	Incorporating remanufacturing into the end-of-life vehicles directive: current presence and the waste problem. <i>Journal of Remanufacturing</i> , 2018, 8, 23-37.	1.6	8
50	The next step in cicada audition: measuring pico-mechanics in the cicada's ear. <i>Journal of Experimental Biology</i> , 2009, 212, 4079-4083.	0.8	7
51	Hearing in the crepuscular owl butterfly (<i>Caligo eurilochus</i> , Nymphalidae). <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2014, 200, 891-898.	0.7	7
52	Hearing ability decreases in aging locusts. <i>Journal of Experimental Biology</i> , 2015, 218, 1990-4.	0.8	7
53	3D printed small-scale acoustic metamaterials based on Helmholtz resonators with tuned overtones. , 2017, , .		7
54	Hearing in tsetse flies? Morphology and mechanics of a putative auditory organ. <i>Bulletin of Entomological Research</i> , 2009, 99, 107-119.	0.5	6

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55	Directional acoustic response of a silicon disc-based microelectromechanical systems structure. <i>Micro and Nano Letters</i> , 2014, 9, 276-279.	0.6	6
56	Evolution of directional hearing in moths via conversion of bat detection devices to asymmetric pressure gradient receivers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E7740-E7748.	3.3	6
57	Simple Ears Inspire Frequency Agility in an Engineered Acoustic Sensor System. <i>IEEE Sensors Journal</i> , 2017, 17, 7298-7305.	2.4	6
58	Global and site-specific analysis of bone in a rat model of spinal cord injury-induced osteoporosis. <i>Bone Reports</i> , 2020, 12, 100233.	0.2	6
59	Resilin Distribution and Sexual Dimorphism in the Midge Antenna and Their Influence on Frequency Sensitivity. <i>Insects</i> , 2020, 11, 520.	1.0	6
60	Temperature effects on the tympanal membrane and auditory receptor neurons in the locust. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2014, 200, 837-847.	0.7	5
61	Additive Manufacturing (AM) Capacitive Acoustic and Ultrasonic Transducers Using a Commercial Direct Light Processing (DLP) Printer. <i>IEEE Sensors Journal</i> , 2020, 20, 1770-1777.	2.4	5
62	Non-destructive Analysis of the Mechanical Properties of 3D-Printed Materials. <i>Journal of Nondestructive Evaluation</i> , 2022, 41, 22.	1.1	5
63	Characterising the response of novel 3D printed CNT electrodes to the virulence factor pyocyanin. <i>Journal of Electroanalytical Chemistry</i> , 2022, 909, 116149.	1.9	5
64	Cicada ear geometry: species and sex effects. <i>Biological Journal of the Linnean Society</i> , 2010, 101, 922-934.	0.7	4
65	Housing influence on multi-band directional MEMS microphones inspired by <i>Ormia ochracea</i> . , 2016, , .		4
66	The anti-bat strategy of ultrasound absorption: The wings of nocturnal moths (Bombycoidea:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307	0.6	4
67	Bioinspired 3D-printed piezoelectric device for acoustic frequency separation. , 2017, , .		4
68	Porpoise click classifier (PorCC): A high-accuracy classifier to study harbour porpoises (<i>Phocoena</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 .	0.5	4
69	Distribution of sound pressure around a singing cricket: radiation pattern and asymmetry in the sound field. <i>Bioacoustics</i> , 2016, 25, 161-176.	0.7	3
70	Extreme call amplitude from near-field acoustic wave coupling in the stridulating water insect <i>Micronecta scholtzi</i> (<i>Micronectinae</i>). <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170768.	1.5	3
71	Component shape optimisation for enhanced non-destructive testing. <i>Materials and Design</i> , 2020, 195, 109041.	3.3	3
72	Hierarchical analysis of factors influencing acceptance of remanufactured medical devices. <i>Cleaner and Responsible Consumption</i> , 2021, 2, 100017.	1.6	3

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73	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.	0.5	2
74	Airborne broad-beam emitter from a capacitive transducer and a cylindrical structure. , 2016, , .		2
75	Active Hearing Mechanisms Inspire Adaptive Amplification in an Acoustic Sensor System. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 655-664.	2.7	2
76	Fabrication and Characterization of 3D Printed Thin Plates for Acoustic Metamaterials Applications. IEEE Sensors Journal, 2019, 19, 10365-10372.	2.4	2
77	Enhancing Acoustic Sensory Responsiveness by Exploiting Bio-inspired Feedback Computation. , 2019, , .		2
78	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.	5.6	2
79	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.	1.1	2
80	I beg your pardon? Acoustic behaviour of a wild solitary common dolphin who interacts with harbour porpoises. Bioacoustics, 2022, 31, 517-534.	0.7	2
81	Response to â€™Measurement of sensitive distortion-product otoacoustic emissions in insect tympanal organsâ€™. Journal of Experimental Biology, 2012, 215, 567-567.	0.8	1
82	Optimization of a bio-inspired sound localization sensor for high directional sensitivity. , 2015, , .		1
83	Directional Receiver for Biomimetic Sonar System. Physics Procedia, 2016, 87, 24-28.	1.2	1
84	Hearing on the fly: the effects of wing position on noctuid moth hearing. Journal of Experimental Biology, 2017, 220, 1952-1955.	0.8	1
85	Development of a biologically inspired MEMS microphone. , 2017, , .		1
86	Rapid prototyped microvessel flow phantom for controlled investigation of ultrasound-mediated targeted drug delivery. , 2019, , .		1
87	An in-air ultrasonic acoustic beam shifter metamaterial. , 2019, , .		1
88	A new cellular electret sensor-actuator. , 2008, , .		0
89	A new sonar localization strategy using receiver beam characteristics. , 2013, , .		0
90	Measured beam patterns of biomimetic receivers improve localisation performance of an ultrasonic sonar: Biomimetic receivers improve ultrasonic sonar localisation. , 2017, , .		0

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91	“Pipe organ”-Air-coupled broad bandwidth transducer. , 2017, , .		0
92	“Pipe organ”-air-coupled broad bandwidth transducer. , 2017, , .		0
93	Ultrasonic bulk wave measurements on composite using fiber from recycled CFRP. AIP Conference Proceedings, 2018, , .	0.3	0
94	3D-printed bioinspired acoustic sensors for frequency decomposition. , 2019, , .		0
95	A Novel 3D-Printed (0-3) Piezocomposite Material for Sensing Applications. , 2020, , .		0
96	Generating characteristic acoustic impedances with hydrogel based phononic crystals for use in ultrasonic transducer matching layers. , 2021, , .		0
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.	0.5	0