William M Kier

List of Publications by Year
in descending order

43 papers	3,884 citations	361413 20 h-index	302126 39 g-index
43 all docs	43 docs citations	43 times ranked	2925 citing authors

#	Article	IF	Citations
1	Soft Robotics: Biological Inspiration, State of the Art, and Future Research. Applied Bionics and Biomechanics, 2008, 5, 99-117.	1.1	1,168
2	Tongues, tentacles and trunks: the biomechanics of movement in muscular-hydrostats. Zoological Journal of the Linnean Society, 1985, 83, 307-324.	2.3	732
3	Soft robotics: Biological inspiration, state of the art, and future research. Applied Bionics and Biomechanics, 2008, 5, 99-117.	1.1	344
4	The Structure and Adhesive Mechanism of Octopus Suckers. Integrative and Comparative Biology, 2002, 42, 1146-1153.	2.0	192
5	Continuum robot arms inspired by cephalopods. , 2005, 5804, 303.		192
6	The diversity of hydrostatic skeletons. Journal of Experimental Biology, 2012, 215, 1247-1257.	1.7	188
7	The arrangement and function of octopus arm musculature and connective tissue. Journal of Morphology, 2007, 268, 831-843.	1.2	138
8	The functional morphology of the musculature of squid (Loliginidae) arms and tentacles. Journal of Morphology, 1982, 172, 179-192.	1.2	101
9	The musculature of squid arms and tentacles: Ultrastructural evidence for functional differences. Journal of Morphology, 1985, 185, 223-239.	1.2	75
10	The Musculature of Coleoid Cephalopod Arms and Tentacles. Frontiers in Cell and Developmental Biology, 2016, 4, 10.	3.7	71
11	Switching Skeletons: Hydrostatic Support in Molting Crabs. Science, 2003, 301, 209-210.	12.6	69
12	The fin musculature of cuttlefish and squid (Mollusca, Cephalopoda): morphology and mechanics. Journal of Zoology, 1989, 217, 23-38.	1.7	52
13	The Arrangement and Function of Molluscan Muscle. , 1988, , 211-252.		48
14	Functional morphology of the cephalopod buccal mass: A novel joint type. Journal of Morphology, 2005, 264, 211-222.	1.2	42
15	Fast muscle in squid (Loligo pealei): contractile properties of a specialized muscle fibre type. Journal of Experimental Biology, 2002, 205, 1907-1916.	1.7	39
16	Muscle development in squid: Ultrastructural differentiation of a specialized muscle fiber type. , 1996, 229, 271-288.		30
17	Ontogenetic Changes in Mantle Kinematics During Escape-Jet Locomotion in the Oval Squid, Sepioteuthis lessoniana Lesson, 1830. Biological Bulletin, 2001, 201, 154-166.	1.8	30
18	Electromyography of the buccal musculature of octopus (Octopus bimaculoides): a test of the function of the muscle articulation in support and movement. Journal of Experimental Biology, 2007, 210, 118-128.	1.7	29

#	Article	IF	Citations
19	Venom kinematics during prey capture inConus: the biomechanics of a rapid injection system. Journal of Experimental Biology, 2010, 213, 673-682.	1.7	29
20	A Soft End Effector Inspired by Cephalopod Suckers and Augmented by a Dielectric Elastomer Actuator. Soft Robotics, 2019, 6, 356-367.	8.0	28
21	Ontogeny of mantle musculature and implications for jet locomotion in oval squid Sepioteuthis lessoniana. Journal of Experimental Biology, 2006, 209, 433-443.	1.7	25
22	Mechanical properties of the rigid and hydrostatic skeletons of molting blue crabs, Callinectes sapidus Rathbun. Journal of Experimental Biology, 2007, 210, 4272-4278.	1.7	23
23	Muscle specialization in the squid motor system. Journal of Experimental Biology, 2008, 211, 164-169.	1.7	23
24	Ontogenetic Changes in Fibrous Connective Tissue Organization in the Oval Squid, Sepioteuthis lessoniana Lesson, 1830. Biological Bulletin, 2001, 201, 136-153.	1.8	21
25	EVOLUTIONARY MECHANICS OF PROTRUSIBLE TENTACLES AND TONGUES. Animal Biology, 2000, 50, 113-139.	0.4	20
26	Fast muscle in squid (Loligo pealei): contractile properties of a specialized muscle fibre type. Journal of Experimental Biology, 2002, 205, 1907-16.	1.7	20
27	Scaling of the hydrostatic skeleton in the earthwormLumbricus terrestris. Journal of Experimental Biology, 2014, 217, 1860-1867.	1.7	19
28	The Functional Morphology of the Tentacle Musculature of Nautilus pompilius. Topics in Geobiology, 1987, , 257-269.	0.5	19
29	Three-dimensional architecture of identified cerebral neurosecretory cells in an insect. Journal of Morphology, 1991, 208, 161-174.	1.2	15
30	The length-force behavior and operating length range of squid muscle varies as a function of position in the mantle wall. Journal of Experimental Biology, 2014, 217, 2181-92.	1.7	15
31	Shade-seeking behaviour under polarized light by the brittlestar Ophioderma Brevispinum (Echinodermata: Ophiuroidea). Journal of the Marine Biological Association of the United Kingdom, 1999, 79, 761-763.	0.8	14
32	Muscular tissues of the squid Doryteuthis pealeii express identical myosin heavy chain isoforms: an alternative mechanism for tuning contractile speed. Journal of Experimental Biology, 2012, 215, 239-246.	1.7	13
33	A pneumo-hydrostatic skeleton in land crabs. Nature, 2006, 440, 1005-1005.	27.8	11
34	Tuning of shortening speed in coleoid cephalopod muscle: no evidence for tissueâ€specific muscle myosin heavy chain isoforms. Invertebrate Biology, 2016, 135, 3-12.	0.9	9
35	Differences in scaling and morphology between lumbricid earthworm ecotypes. Journal of Experimental Biology, 2015, 218, 2970-8.	1.7	8
36	Damage Due to Solar Ultraviolet Radiation in the Brittlestar Ophioderma Brevispinum (Echinodermata: Ophiuroidea). Journal of the Marine Biological Association of the United Kingdom, 1998, 78, 681-684.	0.8	6

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37	Evidence that eye-facing photophores serve as a reference for counterillumination in an order of deep-sea fishes. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20192918.	2.6	6
38	Connective Tissue in Squid Mantle Is Arranged to Accommodate Strain Gradients. Biological Bulletin, 2014, 227, 1-6.	1.8	5
39	Specialization for rapid excitation in fast squid tentacle muscle involves action potentials absent in slow arm muscle. Journal of Experimental Biology, 2020, 223, .	1.7	5
40	Shape, Size, and Structure Affect Obliquely Striated Muscle Function in Squid. Integrative and Comparative Biology, 2018, 58, 261-275.	2.0	4
41	Muscle force is modulated by internal pressure. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2245-2247.	7.1	3
42	Muscle development in squid: Ultrastructural differentiation of a specialized muscle fiber type. Journal of Morphology, 1996, 229, 271-288.	1.2	3
43	Transmural variation in the lengthâ€ƒforce relationships and in vivo operating length ranges of the mantle muscles of squid. FASEB Journal, 2013, 27, 1149.1.	0.5	0