S N Gorb

List of Publications by Year in descending order

528 papers	20,631 citations	12303 69 h-index	18606 119 g-index
548 all docs	548 docs citations	548 times ranked	9642 citing authors

#	Article	IF	Citations
1	From micro to nano contacts in biological attachment devices. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10603-10606.	3.3	985
2	Mechanics of hierarchical adhesion structures of geckos. Mechanics of Materials, 2005, 37, 275-285.	1.7	592
3	Evidence for capillarity contributions to gecko adhesion from single spatula nanomechanical measurements. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16293-16296.	3.3	576
4	Biomimetic mushroom-shaped fibrillar adhesive microstructure. Journal of the Royal Society Interface, 2007, 4, 271-275.	1.5	447
5	Ultrastructure of attachment specializations of hexapods (Arthropoda): evolutionary patterns inferred from a revised ordinal phylogeny. Journal of Zoological Systematics and Evolutionary Research, 2001, 39, 177-207.	0.6	390
6	The effect of surface roughness on the adhesion of elastic plates with application to biological systems. Journal of Chemical Physics, 2003, 119, 11437-11444.	1.2	370
7	Roughness-dependent friction force of the tarsal claw system in the beetlePachnoda marginata(Coleoptera, Scarabaeidae). Journal of Experimental Biology, 2002, 205, 2479-2488.	0.8	284
8	Fabrication of Macroscopically Flexible and Highly Porous 3D Semiconductor Networks from Interpenetrating Nanostructures by a Simple Flame Transport Approach. Particle and Particle Systems Characterization, 2013, 30, 775-783.	1.2	278
9	Adhesion design maps for bio-inspired attachment systems. Acta Biomaterialia, 2005, 1, 5-13.	4.1	250
10	Resolving the nanoscale adhesion of individual gecko spatulae by atomic force microscopy. Biology Letters, 2005, 1, 2-4.	1.0	239
11	Evidence for a material gradient in the adhesive tarsal setae of the ladybird beetle Coccinella septempunctata. Nature Communications, 2013, 4, 1661.	5.8	238
12	Origin of the superior adhesive performance of mushroom-shaped microstructured surfaces. Soft Matter, 2011, 7, 5545.	1.2	226
13	Hexagonal Surface Micropattern for Dry and Wet Friction. Advanced Materials, 2009, 21, 483-486.	11.1	207
14	Biological attachment devices: exploring nature's diversity for biomimetics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 1557-1574.	1.6	197
15	Detailed threeâ€dimensional visualization of resilin in the exoskeleton of arthropods using confocal laser scanning microscopy. Journal of Microscopy, 2012, 245, 1-16.	0.8	192
16	Roughness-dependent friction force of the tarsal claw system in the beetle Pachnoda marginata (Coleoptera, Scarabaeidae). Journal of Experimental Biology, 2002, 205, 2479-88.	0.8	189
17	Ultrastructural architecture and mechanical properties of attachment pads in Tettigonia viridissima (Orthoptera Tettigoniidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2000, 186, 821-831.	0.7	185
18	Influence of surface roughness on gecko adhesion. Acta Biomaterialia, 2007, 3, 607-610.	4.1	184

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19	Adhesion Measured on the Attachment Pads of Tettigonia Viridissima (Orthoptera, Insecta). Journal of Experimental Biology, 2000, 203, 1887-1895.	0.8	179
20	Spatulate structures in biological fibrillar adhesion. Soft Matter, 2010, 6, 3269.	1.2	168
21	Sexual dimorphism in the attachment ability of the Colorado potato beetle Leptinotarsa decemlineata (Coleoptera: Chrysomelidae) to rough substrates. Journal of Insect Physiology, 2008, 54, 765-776.	0.9	165
22	The function of resilin in beetle wings. Proceedings of the Royal Society B: Biological Sciences, 2000, 267, 1375-1381.	1.2	162
23	Composite structure of the crystalline epicuticular wax layer of the slippery zone in the pitchers of the carnivorous plant Nepenthes alata and its effect on insect attachment. Journal of Experimental Biology, 2005, 208, 4651-4662.	0.8	160
24	Microbial colonization and degradation of polyethylene and biodegradable plastic bags in temperate fine-grained organic-rich marine sediments. Marine Pollution Bulletin, 2016, 103, 168-178.	2.3	155
25	Biologically Inspired Mushroom-Shaped Adhesive Microstructures. Annual Review of Materials Research, 2014, 44, 173-203.	4.3	147
26	Chemical composition of the attachment pad secretion of the locust Locusta migratoria. Insect Biochemistry and Molecular Biology, 2002, 32, 1605-1613.	1.2	145
27	Emerging Roots Alter Epidermal Cell Fate through Mechanical and Reactive Oxygen Species Signaling. Plant Cell, 2012, 24, 3296-3306.	3.1	145
28	Tarsal movements in flies during leg attachment and detachment on a smooth substrate. Journal of Insect Physiology, 2003, 49, 611-620.	0.9	140
29	Evolution of locomotory attachment pads of hexapods. Die Naturwissenschaften, 2001, 88, 530-534.	0.6	137
30	Remote Control over Underwater Dynamic Attachment/Detachment and Locomotion. Advanced Materials, 2018, 30, e1801595.	11.1	137
31	Local mechanical properties of the head articulation cuticle in the beetle Pachnoda marginata (Coleoptera, Scarabaeidae). Journal of Experimental Biology, 2006, 209, 722-730.	0.8	135
32	Shearing of fibrillar adhesive microstructure: friction and shear-related changes in pull-off force. Journal of the Royal Society Interface, 2007, 4, 721-725.	1.5	133
33	Serial Elastic Elements in the Damselfly Wing: Mobile Vein Joints Contain Resilin. Die Naturwissenschaften, 1999, 86, 552-555.	0.6	130
34	Elastic joints in dermapteran hind wings: materials and wing folding. Arthropod Structure and Development, 2000, 29, 137-146.	0.8	130
35	Adhesion measured on the attachment pads of Tettigonia viridissima (Orthoptera, insecta). Journal of Experimental Biology, 2000, 203, 1887-95.	0.8	126
36	Function of epidermal surfaces in the trapping efficiency of Nepenthes alata pitchers. New Phytologist, 2002, 156, 479-489.	3.5	125

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37	Biological microtribology: anisotropy in frictional forces of orthopteran attachment pads reflects the ultrastructure of a highly deformable material. Proceedings of the Royal Society B: Biological Sciences, 2000, 267, 1239-1244.	1.2	124
38	Adhesion forces measured at the level of a terminal plate of the fly's seta. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 2209-2215.	1.2	120
39	Hierarchical self-entangled carbon nanotube tube networks. Nature Communications, 2017, 8, 1215.	5.8	120
40	Contact behaviour of tenent setae in attachment pads of the blowfly Calliphora vicina (Diptera,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Physiology, 2002, 187, 961-970.	0.7	119
41	How do plant waxes cause flies to slide? Experimental tests of wax-based trapping mechanisms in three pitfall carnivorous plants. Arthropod Structure and Development, 2004, 33, 103-111.	0.8	117
42	Material structure, stiffness, and adhesion: why attachment pads of the grasshopper (Tettigonia) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5 Physiology, 2006, 192, 1233-1243.	0.7	117
43	Bioinspired photocontrollable microstructured transport device. Science Robotics, 2017, 2, .	9.9	116
44	Scale effects on the attachment pads and friction forces in syrphid flies (Diptera, Syrphidae). Journal of Experimental Biology, 2001, 204, 1421-1431.	0.8	111
45	Adhesion of echinoderm tube feet to rough surfaces. Journal of Experimental Biology, 2005, 208, 2555-2567.	0.8	109
46	Friction and adhesion in the tarsal and metatarsal scopulae of spiders. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2006, 192, 1223-1232.	0.7	109
47	Functional diversity of resilin in Arthropoda. Beilstein Journal of Nanotechnology, 2016, 7, 1241-1259.	1.5	102
48	A beetle-inspired solution for underwater adhesion. Journal of the Royal Society Interface, 2008, 5, 383-385.	1.5	100
49	Ultrastructure of dragonfly wing veins: composite structure of fibrous material supplemented by resilin. Journal of Anatomy, 2015, 227, 561-582.	0.9	99
50	Plant surfaceâ€“bug interactions: Dicyphus errans stalking along trichomes. Arthropod-Plant Interactions, 2007, 1, 221-243.	0.5	98
51	Visualization of Wave Propagation and Fine Structure in Frictional Motion of Unconstrained Soft Microstructured Tapes. Tribology Letters, 2017, 65, 1.	1.2	95
52	Epidermis architecture and material properties of the skin of four snake species. Journal of the Royal Society Interface, 2012, 9, 3140-3155.	1.5	94
53	Close-up of mushroom-shaped fibrillar adhesive microstructure: contact element behaviour. Journal of the Royal Society Interface, 2008, 5, 785-789.	1.5	92
54	Anisotropic Friction of the Ventral Scales in the Snake Lampropeltis getula californiae. Tribology Letters, 2014, 54, 139-150.	1.2	89

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55	Surface structure and frictional properties of the skin of the Amazon tree boa Corallus hortulanus (Squamata, Boidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2009, 195, 311-318.	0.7	86
56	Structure and mechanics of the tarsal chain in the hornet, Vespa crabro (Hymenoptera: Vespidae): implications on the attachment mechanism. Arthropod Structure and Development, 2004, 33, 77-89.	0.8	85
57	Structure and properties of the glandular surface in the digestive zone of the pitcher in the carnivorous plant Nepenthes ventrata and its role in insect trapping and retention. Journal of Experimental Biology, 2004, 207, 2947-2963.	0.8	84
58	Slippery pores: anti-adhesive effect of nanoporous substrates on the beetle attachment system. Journal of the Royal Society Interface, 2010, 7, 1571-1579.	1.5	83
59	Elastic deformation and energy loss of flapping fly wings. Journal of Experimental Biology, 2011, 214, 2949-2961.	0.8	82
60	Humidity-enhanced wet adhesion on insect-inspired fibrillar adhesive pads. Nature Communications, 2015, 6, 6621.	5.8	80
61	Scale effects on the attachment pads and friction forces in syrphid flies (Diptera, Syrphidae). Journal of Experimental Biology, 2001, 204, 1421-31.	0.8	79
62	A multiscale study on the structural and mechanical properties of the luffa sponge from Luffa cylindrica plant. Journal of Biomechanics, 2014, 47, 1332-1339.	0.9	78
63	Elastic modulus of tree frog adhesive toe pads. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2011, 197, 969-78.	0.7	77
64	Mapping the Surface Microbiome and Metabolome of Brown Seaweed Fucus vesiculosus by Amplicon Sequencing, Integrated Metabolomics and Imaging Techniques. Scientific Reports, 2019, 9, 1061.	1.6	76
65	Uncovering Insect Stickiness: Structure and Properties of Hairy Attachment Devices. American Entomologist, 2005, 51, 31-35.	0.1	75
66	Tools for crushing diatoms â€“ opal teeth in copepods feature a rubber-like bearing composed of resilin. Scientific Reports, 2012, 2, 465.	1.6	75
67	Adhesion Failure at 180â€‰000 Frames per Second: Direct Observation of the Detachment Process of a Mushroom-Shaped Adhesive. Physical Review Letters, 2013, 111, 104301.	2.9	75
68	Design of insect unguitractor apparatus. , 1996, 230, 219-230.		74
69	Surface roughness effects on attachment ability of the spider Philodromus dispar (Araneae,) Tj ETQq1 1 0.784314 rgBT /Overlo	0.8	74
70	Shear induced adhesion: Contact mechanics of biological spatula-like attachment devices. Journal of Theoretical Biology, 2011, 276, 126-131.	0.8	72
71	The Evolution of Tarsal Adhesive Microstructures in Stick and Leaf Insects (Phasmatodea). Frontiers in Ecology and Evolution, 2018, 6, .	1.1	72
72	Microsculpture of the wing surface in Odonata: evidence for cuticular wax covering. Arthropod Structure and Development, 2000, 29, 129-135.	0.8	71

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73	Spring model of biological attachment pads. Journal of Theoretical Biology, 2006, 243, 48-53.	0.8	71
74	Effects of surface topography and chemistry of RumexÂobtusifolius leaves on the attachment of the beetle GastrophysaÂviridula. Entomologia Experimentalis Et Applicata, 2009, 130, 222-228.	0.7	71
75	Spider's super-glue: thread anchors are composite adhesives with synergistic hierarchical organization. Soft Matter, 2015, 11, 2394-2403.	1.2	71
76	Material properties of the skin of the Kenyan sand boa Gongylophis colubrinus (Squamata, Boidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2010, 196, 659-668.	0.7	69
77	Suction component in adhesion of mushroom-shaped microstructure. Journal of the Royal Society Interface, 2011, 8, 585-589.	1.5	69
78	Exploring Biological Surfaces by Nanoindentation. Journal of Materials Research, 2004, 19, 880-887.	1.2	68
79	Anti-adhesive effects of plant wax coverage on insect attachment. Journal of Experimental Botany, 2017, 68, 5323-5337.	2.4	68
80	Evolution of locomotory attachment pads in the Dermaptera (Insecta). Arthropod Structure and Development, 2004, 33, 45-66.	0.8	63
81	The jumping mechanism of cicada Cercopis vulnerata (Auchenorrhyncha, Cercopidae): skeletonâ€“muscle organisation, frictional surfaces, and inverse-kinematic model of leg movements. Arthropod Structure and Development, 2004, 33, 201-220.	0.8	63
82	Towards a micromechanical understanding of biological surface devices. International Journal of Materials Research, 2002, 93, 345-351.	0.8	62
83	Underwater locomotion in a terrestrial beetle: combination of surface de-wetting and capillary forces. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4236-4242.	1.2	62
84	Hairy suckers: the surface microstructure and its possible functional significance in the Octopus vulgaris sucker. Beilstein Journal of Nanotechnology, 2014, 5, 561-565.	1.5	60
85	Complex shaped ZnO nano- and microstructure based polymer composites: mechanically stable and environmentally friendly coatings for potential antifouling applications. Physical Chemistry Chemical Physics, 2016, 18, 7114-7123.	1.3	60
86	Wet versus dry adhesion of biomimetic mushroom-shaped microstructures. Soft Matter, 2012, 8, 7560.	1.2	59
87	Morphological studies of the toe pads of the rock frog,Staurois parvus(family: Ranidae) and their relevance to the development of new biomimetically inspired reversible adhesives. Interface Focus, 2015, 5, 20140036.	1.5	58
88	Surface roughness rather than surface chemistry essentially affects insect adhesion. Beilstein Journal of Nanotechnology, 2016, 7, 1471-1479.	1.5	58
89	The synergy between the insect-inspired claws and adhesive pads increases the attachment ability on various rough surfaces. Scientific Reports, 2016, 6, 26219.	1.6	58
90	Effect of microstructure on the mechanical and damping behaviour of dragonfly wing veins. Royal Society Open Science, 2016, 3, 160006.	1.1	58

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91	Attachment force of the beetle Cryptolaemus montrouzieri (Coleoptera, Coccinellidae) on leaflet surfaces of mutants of the pea Pisum sativum (Fabaceae) with regular and reduced wax coverage. Arthropod-Plant Interactions, 2008, 2, 247-259.	0.5	57
92	Resilin microjoints: a smart design strategy to avoid failure in dragonfly wings. Scientific Reports, 2016, 6, 39039.	1.6	57
93	Contact Mechanics and Friction on Dry and Wet Human Skin. Tribology Letters, 2013, 50, 17-30.	1.2	56
94	Male clasping ability, female polymorphism and sexual conflict: fine-scale elytral morphology as a sexually antagonistic adaptation in female diving beetles. Journal of the Royal Society Interface, 2013, 10, 20130409.	1.5	56
95	Fibrillar adhesion with no clusterisation: Functional significance of material gradient along adhesive setae of insects. Beilstein Journal of Nanotechnology, 2014, 5, 837-845.	1.5	56
96	Silk-like secretion from tarantula feet. Nature, 2006, 443, 407-407.	13.7	55
97	Adhesive and frictional properties of tarsal attachment pads in two species of stick insects (Phasmatodea) with smooth and nubby euplantulae. Zoology, 2012, 115, 135-141.	0.6	55
98	Frictional-anisotropy-based systems in biology: structural diversity and numerical model. Scientific Reports, 2013, 3, 1240.	1.6	55
99	Evolutionary scenarios for unusual attachment devices of Phasmatodea and Mantophasmatodea (Insecta). Systematic Entomology, 2008, 33, 501-510.	1.7	54
100	Dry friction of microstructured polymer surfaces inspired by snake skin. Beilstein Journal of Nanotechnology, 2014, 5, 1091-1103.	1.5	54
101	Ontogenesis of the attachment ability in the bug Coreus marginatus (Heteroptera, Insecta). Journal of Experimental Biology, 2004, 207, 2917-2924.	0.8	53
102	Physicochemical Properties of Functional Surfaces in Pitchers of the Carnivorous Plant Nepenthes alata Blanco (Nepenthaceae). Plant Biology, 2006, 8, 841-848.	1.8	53
103	Geometry-controlled adhesion: revisiting the contact splitting hypothesis. Applied Physics A: Materials Science and Processing, 2011, 103, 933-938.	1.1	52
104	Dragonfly wing nodus: A one-way hinge contributing to the asymmetric wing deformation. Acta Biomaterialia, 2017, 60, 330-338.	4.1	52
105	Visualisation of Native Surfaces by Two-Step Molding. Microscopy Today, 2007, 15, 44-47.	0.2	51
106	Smooth Attachment Devices in Insects: Functional Morphology and Biomechanics. Advances in Insect Physiology, 2007, , 81-115.	1.1	50
107	An insect trap as habitat: cohesion-failure mechanism prevents adhesion ofPameridea roridulaebugs to the sticky surface of the plantRoridula gorgonias. Journal of Experimental Biology, 2008, 211, 2647-2657.	0.8	50
108	Insect walking techniques on thin stems. Arthropod-Plant Interactions, 2007, 1, 77-91.	0.5	49

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109	Egg attachment of the asparagus beetle Crioceris asparagi to the crystalline waxy surface of Asparagus officinalis. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 895-903.	1.2	49
110	Material composition of the mouthpart cuticle in a damselfly larva (Insecta: Odonata) and its biomechanical significance. Royal Society Open Science, 2018, 5, 172117.	1.1	49
111	Terminal contact elements of insect attachment devices studied by transmission X-ray microscopy. Journal of Experimental Biology, 2008, 211, 1958-1963.	0.8	48
112	Friction behavior of a microstructured polymer surface inspired by snake skin. Beilstein Journal of Nanotechnology, 2014, 5, 83-97.	1.5	48
113	Generation of bioinspired structural colors via two-photon polymerization. Scientific Reports, 2017, 7, 17622.	1.6	48
114	Geckoâ€™s Feet-Inspired Self-Peeling Switchable Dry/Wet Adhesive. Chemistry of Materials, 2021, 33, 2785-2795.	3.2	48
115	Title is missing!. Journal of Insect Behavior, 1998, 11, 73-92.	0.4	46
116	Force transformation in spider strain sensors: white light interferometry. Journal of the Royal Society Interface, 2012, 9, 1254-1264.	1.5	46
117	Stiffness distribution in insect cuticle: a continuous or a discontinuous profile?. Journal of the Royal Society Interface, 2017, 14, 20170310.	1.5	46
118	Inversion of friction anisotropy in a bio-inspired asymmetrically structured surface. Journal of the Royal Society Interface, 2018, 15, 20170629.	1.5	46
119	The influence of humidity on the attachment ability of the spiderPhilodromus dispar(Araneae,) Tj ETQq1 1 0.784314 rgBT /Ove	1.2	45
120	Radial arrangement of Janus-like setae permits friction control in spiders. Scientific Reports, 2013, 3, 1101.	1.6	44
121	Adhesion control by inflation: implications from biology to artificial attachment device. Applied Physics A: Materials Science and Processing, 2014, 116, 567-573.	1.1	44
122	Arcus as a tensegrity structure in the arolium of wasps (Hymenoptera: Vespidae). Zoology, 2002, 105, 225-237.	0.6	42
123	Mechanical properties of the endophytic ovipositor in damselflies (Zygoptera, Odonata) and their oviposition substrates. Zoology, 2007, 110, 167-175.	0.6	42
124	Resilin-bearing wing vein joints in the dragonflyEpiophlebia superstes. Bioinspiration and Biomimetics, 2011, 6, 046006.	1.5	42
125	Adhesion tilt-tolerance in bio-inspired mushroom-shaped adhesive microstructure. Applied Physics Letters, 2014, 104, 011906.	1.5	41
126	A comparative study of the effects of vein-joints on the mechanical behaviour of insect wings: I. Single joints. Bioinspiration and Biomimetics, 2015, 10, 056003.	1.5	41

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127	Leaf beetle attachment on wrinkles: isotropic friction on anisotropic surfaces. Journal of Experimental Biology, 2012, 215, 1975-1982.	0.8	40
128	Reduction of female copulatory damage by resilin represents evidence for tolerance in sexual conflict. Journal of the Royal Society Interface, 2015, 12, 20141107.	1.5	40
129	The whole is more than the sum of all its parts: collective effect of spider attachment organs. Journal of Experimental Biology, 2014, 217, 222-224.	0.8	38
130	Mechanism of the wing colouration in the dragonfly Zenithoptera lanei (Odonata: Libellulidae) and its role in intraspecific communication. Journal of Insect Physiology, 2015, 81, 129-136.	0.9	38
131	Effects of seed aggregation on the removal rates of elaiosome-bearing Chelidonium majus and Viola odourata seeds carried by Formica polyctena ants. Ecological Research, 2000, 15, 187-192.	0.7	37
132	Direct observation of microcavitation in underwater adhesion of mushroom-shaped adhesive microstructure. Beilstein Journal of Nanotechnology, 2014, 5, 903-909.	1.5	37
133	Honey bee hairs and pollenkitt are essential for pollen capture and removal. Bioinspiration and Biomimetics, 2017, 12, 026015.	1.5	37
134	Surface topography and contact mechanics of dry and wet human skin. Beilstein Journal of Nanotechnology, 2014, 5, 1341-1348.	1.5	36
135	Enhanced Locomotion Efficiency of a Bio-inspired Walking Robot using Contact Surfaces with Frictional Anisotropy. Scientific Reports, 2016, 6, 39455.	1.6	36
136	A comparative study of the effects of constructional elements on the mechanical behaviour of dragonfly wings. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	36
137	How does a slender tibia resist buckling? The effect of material, structural and geometric characteristics on the buckling behaviour of the hindleg tibia in the postembryonic development of the stick insect Carausius morosus. Journal of Experimental Biology, 2017, 221, .	0.8	36
138	Holding tight on feathers - structural specializations and attachment properties of the avian ectoparasiteCrataerina pallida(Diptera, Hippoboscidae). Journal of Experimental Biology, 2018, 221, .	0.8	36
139	Biomechanical Strategies Underlying the Robust Body Armour of an Aposematic Weevil. Frontiers in Physiology, 2018, 9, 1410.	1.3	36
140	Wing-locking mechanisms in aquatic Heteroptera. Journal of Morphology, 2003, 257, 127-146.	0.6	35
141	Composition and substrate-dependent strength of the silken attachment discs in spiders. Journal of the Royal Society Interface, 2014, 11, 20140477.	1.5	35
142	Attachment ability of the polyphagous bug Nezara viridula (Heteroptera: Pentatomidae) to different host plant surfaces. Scientific Reports, 2018, 8, 10975.	1.6	35
143	Landing on branches in the frog Trachycephalus resinifictrix (Anura: Hylidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2016, 202, 267-276.	0.7	34
144	Slipping vs sticking: Water-dependent adhesive and frictional properties of Linum usitatissimum L. seed mucilaginous envelope and its biological significance. Acta Biomaterialia, 2015, 17, 152-159.	4.1	33

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145	Mechanical properties of a single gecko seta. International Journal of Materials Research, 2008, 99, 1113-1118.	0.1	32
146	Tarsal morphology and attachment ability of the codling moth Cydia pomonella L. (Lepidoptera,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7	0.9	32
147	An Experimental and Numerical Study of Calliphora Wing Structure. Experimental Mechanics, 2010, 50, 1183-1197.	1.1	32
148	Comparative study of the fluid viscosity in tarsal hairy attachment systems of flies and beetles. Journal of the Royal Society Interface, 2014, 11, 20140752.	1.5	32
149	Interlocking-based attachment during locomotion in the beetle Pachnoda marginata (Coleoptera,) Tj ETQq1 1 0.784314 rgBT /Overlock	1.6	32
150	Effects of multiple vein microjoints on the mechanical behaviour of dragonfly wings: numerical modelling. Royal Society Open Science, 2016, 3, 150610.	1.1	32
151	Attachment ability of the southern green stink bug Nezara viridula (Heteroptera: Pentatomidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 601-611.	0.7	32
152	Hunting with sticky tape: functional shift in silk glands of araneophagous ground spiders (Gnaphosidae). Journal of Experimental Biology, 2017, 220, 2250-2259.	0.8	32
153	Insect Epicuticular Grease Visualised by Scanning Probe Microscopy. Microscopy Today, 2008, 16, 42-45.	0.2	31
154	Structure and function of the arolium of Mantophasmatodea (Insecta). Journal of Morphology, 2009, 270, 1247-1261.	0.6	31
155	Fracture behaviour of plant epicuticular wax crystals and its role in preventing insect attachment: a theoretical approach. Applied Physics A: Materials Science and Processing, 2010, 100, 63-71.	1.1	31
156	Attachment ability of the codling moth Cydia pomonella L. to rough substrates. Journal of Insect Physiology, 2010, 56, 1966-1972.	0.9	31
157	Evaporation dynamics of tarsal liquid footprints in flies (Calliphora vicina)and beetles (Coccinella) Tj ETQq1 1 0.784314 rgBT /Overloc	0.8	31
158	In vitro Induction of Residual Caries Lesions in Dentin: Comparative Mineral Loss and Nano-Hardness Analysis. Caries Research, 2015, 49, 259-265.	0.9	31
159	Modelling of the frictional behaviour of the snake skin covered by anisotropic surface nanostructures. Scientific Reports, 2016, 6, 23539.	1.6	31
160	Underwater attachment in current: the role of setose attachment structures on the gills of the mayfly larvaeEpeorus assimilis(Ephemeroptera, Heptageniidae). Journal of Experimental Biology, 2010, 213, 1950-1959.	0.8	30
161	Shoe soles for the gripping robot: Searching for polymer-based materials maximising friction. Robotics and Autonomous Systems, 2012, 60, 1046-1055.	3.0	30
162	Two intromittent organs inZorotypus caudelli(Insecta, Zoraptera): the paradoxical coexistence of an extremely long tube and a large spermatophore. Biological Journal of the Linnean Society, 2014, 112, 40-54.	0.7	30

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163	Elasticity of the hair cover in air-retaining Salvinia surfaces. Applied Physics A: Materials Science and Processing, 2015, 121, 505-511.	1.1	30
164	Seasonally fluctuating chemical microfouling control in Fucus vesiculosus and Fucus serratus from the Baltic Sea. Marine Biology, 2016, 163, 1.	0.7	30
165	Combined Effect of the Microstructure and Underlying Surface Curvature on the Performance of Biomimetic Adhesives. Advanced Materials, 2018, 30, e1704696.	11.1	30
166	Differences in the Young modulus and hardness reflect different functions of teeth within the taenioglossan radula of gastropods. Zoology, 2019, 137, 125713.	0.6	30
167	Insect wing damage: causes, consequences and compensatory mechanisms. Journal of Experimental Biology, 2020, 223, .	0.8	30
168	Gluing the â€˜unwettableâ€™: soil-dwelling harvestmen use viscoelastic fluids for capturing springtails. Journal of Experimental Biology, 2014, 217, 3535-3544.	0.8	29
169	Hunting Without a Web: How Lycosoid Spiders Subdue their Prey. Ethology, 2015, 121, 1166-1177.	0.5	29
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