Yasuyuki Arakane

List of Publications by Year
in descending order

		101384	149479
64	5,587	36	56
papers	citations	h-index	g-index

64	64	64	4508
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The genome of the model beetle and pest Tribolium castaneum. Nature, 2008, 452, 949-955.	13.7	1,255
2	Laccase 2 is the phenoloxidase gene required for beetle cuticle tanning. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11337-11342.	3.3	342
3	Insect chitinase and chitinase-like proteins. Cellular and Molecular Life Sciences, 2010, 67, 201-216.	2.4	278
4	Functional specialization among insect chitinase family genes revealed by RNA interference. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6650-6655.	3.3	221
5	Molecular and Functional Analyses of Amino Acid Decarboxylases Involved in Cuticle Tanning in Tribolium castaneum. Journal of Biological Chemistry, 2009, 284, 16584-16594.	1.6	181
6	Functional analysis of four neuropeptides, EH, ETH, CCAP and bursicon, and their receptors in adult ecdysis behavior of the red flour beetle, Tribolium castaneum. Mechanisms of Development, 2008, 125, 984-995.	1.7	168
7	Characterization of two chitin synthase genes of the red flour beetle, Tribolium castaneum, and alternate exon usage in one of the genes during development. Insect Biochemistry and Molecular Biology, 2004, 34, 291-304.	1.2	167
8	Chitin synthases are required for survival, fecundity and egg hatch in the red flour beetle, Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2008, 38, 959-962.	1.2	145
9	Analysis of functions of the chitin deacetylase gene family in Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2009, 39, 355-365.	1.2	145
10	Genes encoding proteins with peritrophin A-type chitin-binding domains in Tribolium castaneum are grouped into three distinct families based on phylogeny, expression and function. Insect Biochemistry and Molecular Biology, 2010, 40, 214-227.	1.2	141
11	Domain organization and phylogenetic analysis of proteins from the chitin deacetylase gene family of Tribolium castaneum and three other species of insects. Insect Biochemistry and Molecular Biology, 2008, 38, 440-451.	1.2	130
12	Domain organization and phylogenetic analysis of the chitinase-like family of proteins in three species of insects. Insect Biochemistry and Molecular Biology, 2008, 38, 452-466.	1.2	129
13	Cuticle formation and pigmentation in beetles. Current Opinion in Insect Science, 2016, 17, 1-9.	2.2	125
14	Repeated Co-options of Exoskeleton Formation during Wing-to-Elytron Evolution in Beetles. Current Biology, 2009, 19, 2057-2065.	1.8	122
15	Properties of catalytic, linker and chitin-binding domains of insect chitinase. Insect Biochemistry and Molecular Biology, 2003, 33, 631-648.	1.2	120
16	Chitin synthase genes in Manduca sexta: characterization of a gut-specific transcript and differential tissue expression of alternately spliced mRNAs during development. Insect Biochemistry and Molecular Biology, 2005, 35, 529-540.	1.2	110
17	Knickkopf protein protects and organizes chitin in the newly synthesized insect exoskeleton. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17028-17033.	3.3	106
18	Tyrosine hydroxylase is required for cuticle sclerotization and pigmentation in Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2010, 40, 267-273.	1.2	104

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19	Chitin Metabolism in Insects. , 2012, , 193-235.		99
20	Sequences of cDNAs and expression of genes encoding chitin synthase and chitinase in the midgut of Spodoptera frugiperda. Insect Biochemistry and Molecular Biology, 2005, 35, 1249-1259.	1.2	89
21	Characterization and expression of the Î²-N-acetylhexosaminidase gene family of Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2008, 38, 478-489.	1.2	84
22	Comparative Genomic Analysis of Chitinase and Chitinase-Like Genes in the African Malaria Mosquito (Anopheles gambiae). PLoS ONE, 2011, 6, e19899.	1.1	77
23	Two major cuticular proteins are required for assembly of horizontal laminae and vertical pore canals in rigid cuticle of Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2014, 53, 22-29.	1.2	76
24	Identification, mRNA expression and functional analysis of several yellow family genes in Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2010, 40, 259-266.	1.2	72
25	Both UDP N-acetylglucosamine pyrophosphorylases of Tribolium castaneum are critical for molting, survival and fecundity. Insect Biochemistry and Molecular Biology, 2011, 41, 42-50.	1.2	69
26	Tribolium castaneum RR-1 Cuticular Protein TcCPR4 Is Required for Formation of Pore Canals in Rigid Cuticle. PLoS Genetics, 2015, 11, e1004963.	1.5	69
27	Characterization of recombinant chitinase-like proteins of Drosophila melanogaster and Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2008, 38, 467-477.	1.2	68
28	Mechanical Properties of the Beetle Elytron, a Biological Composite Material. Biomacromolecules, 2011, 12, 321-335.	2.6	68
29	Formation of Rigid, Non-Flight Forewings (Elytra) of a Beetle Requires Two Major Cuticular Proteins. PLoS Genetics, 2012, 8, e1002682.	1.5	68
30	Cuticular protein with a low complexity sequence becomes cross-linked during insect cuticle sclerotization and is required for the adult molt. Scientific Reports, 2015, 5, 10484.	1.6	67
31	Loss of function of the yellow-e gene causes dehydration-induced mortality of adult Tribolium castaneum. Developmental Biology, 2015, 399, 315-324.	0.9	53
32	Chymotrypsin-like peptidases from Tribolium castaneum: A role in molting revealed by RNA interference. Insect Biochemistry and Molecular Biology, 2010, 40, 274-283.	1.2	49
33	A chitinase with two catalytic domains is required for organization of the cuticular extracellular matrix of a beetle. PLoS Genetics, 2018, 14, e1007307.	1.5	46
34	Yellow-g and Yellow-g2 proteins are required for egg desiccation resistance and temporal pigmentation in the Asian tiger mosquito, Aedes albopictus. Insect Biochemistry and Molecular Biology, 2020, 122, 103386.	1.2	46
35	Chitin-Related Enzymes in Agro-Biosciences. Current Drug Targets, 2012, 13, 442-470.	1.0	43
36	Insect Cuticular Chitin Contributes to Form and Function. Current Pharmaceutical Design, 2020, 26, 3530-3545.	0.9	43

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37	Arylalkylamine N-acetyltransferase 1 gene (TcAANAT1) is required for cuticle morphology and pigmentation of the adult red flour beetle, Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2016, 79, 119-129.	1.2	39
38	Chitin Organizing and Modifying Enzymes and Proteins Involved InÂRemodeling of the Insect Cuticle. Advances in Experimental Medicine and Biology, 2019, 1142, 83-114.	0.8	37
39	Gene functions in adult cuticle pigmentation of the yellow mealworm, Tenebrio molitor. Insect Biochemistry and Molecular Biology, 2020, 117, 103291.	1.2	37
40	Development and ultrastructure of the rigid dorsal and flexible ventral cuticles of the elytron of the red flour beetle, Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2017, 91, 21-33.	1.2	36
41	Retroactive Maintains Cuticle Integrity by Promoting the Trafficking of Knickkopf into the Procuticle of Tribolium castaneum. PLoS Genetics, 2013, 9, e1003268.	1.5	34
42	Group I chitin deacetylases are essential for higher order organization of chitin fibers in beetle cuticle. Journal of Biological Chemistry, 2018, 293, 6985-6995.	1.6	34
43	Mechanical properties of elytra from Tribolium castaneum wild-type and body color mutant strains. Journal of Insect Physiology, 2010, 56, 1901-1906.	0.9	29
44	Knickkopf and retroactive proteins are required for formation of laminar serosal procuticle during embryonic development of Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2015, 60, 1-6.	1.2	22
45	Tyrosine Metabolism for Insect Cuticle Pigmentation and Sclerotization. , 2016, , 165-220.		20
46	RNAiâ€based functional genomics in <i>Tribolium castaneum</i> and possible application for controlling insect pests. Entomological Research, 2012, 42, 1-10.	0.6	19
47	Functional Specialization Among Members Of Knickkopf Family Of Proteins In Insect Cuticle Organization. PLoS Genetics, 2014, 10, e1004537.	1.5	19
48	A Multicopper Oxidase-Related Protein Is Essential for Insect Viability, Longevity and Ovary Development. PLoS ONE, 2014, 9, e111344.	1.1	14
49	Future questions in insect chitin biology: A microreview. Archives of Insect Biochemistry and Physiology, 2018, 98, e21454.	0.6	14
50	Chitin Metabolic Pathways in Insects and Their Regulation. , 2016, , 31-65.		12
51	Yellow-y Functions in Egg Melanization and Chorion Morphology of the Asian Tiger Mosquito, Aedes albopictus. Frontiers in Cell and Developmental Biology, 2021, 9, 769788.	1.8	10
52	AA15 lytic polysaccharide monooxygenase is required for efficient chitinous cuticle turnover during insect molting. Communications Biology, 2022, 5, .	2.0	10
53	Ultrastructural analysis of beetle larva cuticles during infection with the entomopathogenic fungus, <i>Beauveria bassiana</i>. Pest Management Science, 2022, 78, 3356-3364.	1.7	9
54	Unveiling characteristic proteins for the structural development of beetle elytra. Acta Biomaterialia, 2022, 140, 467-480.	4.1	6

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55	Chitin in insect cuticle. Advances in Insect Physiology, 2022, , 1-110.	1.1	5
56	A Major Facilitator Superfamily protein encoded by TcMucK gene is not required for cuticle pigmentation, growth and development in Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2014, 49, 43-48.	1.2	2
57	Chitin deacetylases are necessary for insect femur muscle attachment and mobility. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	2
58	Cuticle tanning in Tribolium castaneum. Entomological Research, 2011, 41, 293-293.	0.6	1
59	Expression Profiles and Functional Analysis of Genes Encoding Chitin Deacetylases, Extracellular Matrix-Modifying Proteins in Tribolium castaneum. Entomological Research, 2011, 41, 294-294.	0.6	1
60	Functional Analysis of Genes of Chitin Metabolism in Tribolium castaneum by RNA interference. Entomological Research, 2011, 41, 295-295.	0.6	0
61	Two Major Structural Proteins Are Required for Rigid Adult Cuticle Formation in the Red Flour Beetle, Tribolium castaneum. Entomological Research, 2011, 41, 297-297.	0.6	0
62	Characterization of Multicopper Oxidase Related Protein (MCORP) in Two Insect Species. FASEB Journal, 2010, 24, 854.6.	0.2	0
63	S2-2 Development, Ultrastructure and Morphology of Cuticle of a Beetle. Bulletin of Applied Glycoscience, 2015, 5, B32.	0.0	0
64	Superoxide dismutase 6 is required during metamorphosis for the development of properly movable legs in Tribolium castaneum. Scientific Reports, 2022, 12, 6900.	1.6	0