T G Emyr Davies

List of Publications by Year
in descending order

67 papers	5,643 citations	117625 34 h-index	106344 65 g-index
68 all docs	68 docs citations	68 times ranked	6129 citing authors

#	Article	IF	Citations
1	Diamide insecticide resistance in transgenic <i>Drosophila</i> and Sf9â€cells expressing a fullâ€length diamondback moth ryanodine receptor carrying an <scp>I4790M</scp> mutation. Pest Management Science, 2022, 78, 869-880.	3.4	9
2	P450 gene duplication and divergence led to the evolution of dual novel functions and insecticide cross-resistance in the brown planthopper Nilaparvata lugens. PLoS Genetics, 2022, 18, e1010279.	3.5	11
3	A toxicogenomics approach reveals characteristics supporting the honey bee (Apis mellifera L.) safety profile of the butenolide insecticide flupyradifurone. Ecotoxicology and Environmental Safety, 2021, 217, 112247.	6.0	30
4	Acute Imidacloprid Exposure Alters Mitochondrial Function in Bumblebee Flight Muscle and Brain. Frontiers in Insect Science, 2021, 1, .	2.1	3
5	Chimeric Investigations into the Diamide Binding Site on the Lepidopteran Ryanodine Receptor. International Journal of Molecular Sciences, 2021, 22, 13033.	4.1	5
6	Investigating the status of pyrethroid resistance in UK populations of the cabbage stem flea beetle (Psylliodes chrysocephala). Crop Protection, 2020, 138, 105316.	2.1	27
7	Fly-Tox: A panel of transgenic flies expressing pest and pollinator cytochrome P450s. Pesticide Biochemistry and Physiology, 2020, 169, 104674.	3.6	15
8	Evolutionary tradeâ€offs of insecticide resistance â€" The fitness costs associated with targetâ€site mutations in the nAChR of <i>Drosophila melanogaster</i>. Molecular Ecology, 2020, 29, 2661-2675.	3.9	47
9	Assessing the acute toxicity of insecticides to the buff-tailed bumblebee (Bombus terrestris audax). Pesticide Biochemistry and Physiology, 2020, 166, 104562.	3.6	18
10	Diamide resistance: 10Âyears of lessons from lepidopteran pests. Journal of Pest Science, 2020, 93, 911-928.	3.7	100
11	Do bumblebees have signatures? Demonstrating the existence of a speed-curvature power law in Bombus terrestris locomotion patterns. PLoS ONE, 2020, 15, e0226393.	2.5	5
12	Mutations in the voltageâ€gated sodium channel gene associated with deltamethrin resistance in commercially sourced <i>Phytoseiulus persimilis</i>. Insect Molecular Biology, 2020, 29, 373-380.	2.0	12
13	The effects of knock-down resistance mutations and alternative splicing on voltage-gated sodium channels in Musca domestica and Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2020, 122, 103388.	2.7	1
14	Extension of Partial Gene Transcripts by Iterative Mapping of RNA-Seq Raw Reads. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 16, 1036-1041.	3.0	3
15	Identification and functional characterisation of a novel N-cyanoamidine neonicotinoid metabolising cytochrome P450, CYP9Q6, from the buff-tailed bumblebee Bombus terrestris. Insect Biochemistry and Molecular Biology, 2019, 111, 103171.	2.7	39
16	RNA interference-mediated knockdown of voltage-gated sodium channel (MpNav) gene causes mortality in peach-potato aphid, Myzus persicae. Scientific Reports, 2019, 9, 5291.	3.3	39
17	Genomic insights into neonicotinoid sensitivity in the solitary bee Osmia bicornis. PLoS Genetics, 2019, 15, e1007903.	3.5	68
18	Host plant adaptation in the polyphagous whitefly, Trialeurodes vaporariorum, is associated with transcriptional plasticity and altered sensitivity to insecticides. BMC Genomics, 2019, 20, 996.	2.8	27

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19	An overview of functional genomic tools in deciphering insecticide resistance. Current Opinion in Insect Science, 2018, 27, 103-110.	4.4	33
20	Neofunctionalization of Duplicated P450 Genes Drives the Evolution of Insecticide Resistance in the Brown Planthopper. Current Biology, 2018, 28, 268-274.e5.	3.9	127
21	Unravelling the Molecular Determinants of Bee Sensitivity to Neonicotinoid Insecticides. Current Biology, 2018, 28, 1137-1143.e5.	3.9	234
22	An analysis of variability in genome organisation of intracellular calcium release channels across insect orders. Gene, 2018, 670, 70-86.	2.2	10
23	Rapid selection for resistance to diamide insecticides in Plutella xylostella via specific amino acid polymorphisms in the ryanodine receptor. NeuroToxicology, 2017, 60, 224-233.	3.0	72
24	Influence of the RDL A301S mutation in the brown planthopper Nilaparvata lugens on the activity of phenylpyrazole insecticides. Pesticide Biochemistry and Physiology, 2017, 142, 1-8.	3.6	30
25	Voltage-gated sodium channels as targets for pyrethroid insecticides. European Biophysics Journal, 2017, 46, 675-679.	2.2	116
26	Aphid genomics and its contribution to understanding aphids as crop pests.. , 2017, , 37-49.		3
27	A CRISPR/Cas9 mediated point mutation in the alpha 6 subunit of the nicotinic acetylcholine receptor confers resistance to spinosad in Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2016, 73, 62-69.	2.7	79
28	Ion channels as insecticide targets. Journal of Neurogenetics, 2016, 30, 163-177.	1.4	84
29	Fieldâ€evolved resistance to imidacloprid and ethiprole in populations of brown planthopper <i>Nilaparvata lugens</i> collected from across South and East Asia. Pest Management Science, 2016, 72, 140-149.	3.4	93
30	Novel Mutations in the Voltage-Gated Sodium Channel of Pyrethroid-Resistant Varroa destructor Populations from the Southeastern USA. PLoS ONE, 2016, 11, e0155332.	2.5	74
31	Stable expression and functional characterisation of the diamondback moth ryanodine receptor G4946E variant conferring resistance to diamide insecticides. Scientific Reports, 2015, 5, 14680.	3.3	67
32	An evolutionarilyâ€unique heterodimeric voltageâ€gated cation channel found in aphids. FEBS Letters, 2015, 589, 598-607.	2.8	21
33	Pest control and resistance management through release of insects carrying a male-selecting transgene. BMC Biology, 2015, 13, 49.	3.8	59
34	Molecular cloning, characterisation and mRNA expression of the ryanodine receptor from the peach-potato aphid, Myzus persicae. Gene, 2015, 556, 106-112.	2.2	9
35	Predictive <scp>3D</scp> modelling of the interactions of pyrethroids with the voltageâ€gated sodium channels of ticks and mites. Pest Management Science, 2014, 70, 369-377.	3.4	41
36	An Amino Acid Substitution (L925V) Associated with Resistance to Pyrethroids in Varroa destructor. PLoS ONE, 2013, 8, e82941.	2.5	67

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37	Resistance to diamide insecticides in diamondback moth, Plutella xylostella (Lepidoptera: Plutellidae) is associated with a mutation in the membrane-spanning domain of the ryanodine receptor. Insect Biochemistry and Molecular Biology, 2012, 42, 873-880.	2.7	255
38	The reâ€emergence of the bed bug as a nuisance pest: implications of resistance to the pyrethroid insecticides. Medical and Veterinary Entomology, 2012, 26, 241-254.	1.5	149
39	Differential resistance of insect sodium channels with kdr mutations to deltamethrin, permethrin and DDT. Insect Biochemistry and Molecular Biology, 2011, 41, 723-732.	2.7	90
40	Identification of ion channel genes in the <i>Acyrthosiphon pisum</i> genome. Insect Molecular Biology, 2010, 19, 141-153.	2.0	46
41	Genome Sequence of the Pea Aphid Acyrthosiphon pisum. PLoS Biology, 2010, 8, e1000313.	5.6	913
42	Single channel study of deltamethrin interactions with wild-type and mutated rat NaV1.2 sodium channels expressed in Xenopus oocytes. NeuroToxicology, 2009, 30, 358-367.	3.0	9
43	Insecticide Binding to Voltage-gated Sodium Channels. Biophysical Journal, 2009, 96, 14a.	0.5	0
44	Knockdown resistance to DDT and pyrethroids: from targetâ€site mutations to molecular modelling. Pest Management Science, 2008, 64, 1126-1130.	3.4	65
45	Mutations in DIIS5 and the DIIS4â€"S5 linker of <i>Drosophila melanogaster</i> sodium channel define binding domains for pyrethroids and DDT. FEBS Letters, 2007, 581, 5485-5492.	2.8	105
46	A comparative study of voltage-gated sodium channels in the Insecta: implications for pyrethroid resistance in Anopheline and other Neopteran species. Insect Molecular Biology, 2007, 16, 361-375.	2.0	116
47	DDT, pyrethrins, pyrethroids and insect sodium channels. IUBMB Life, 2007, 59, 151-162.	3.4	476
48	Modelling insecticide-binding sites in the voltage-gated sodium channel. Biochemical Journal, 2006, 396, 255-263.	3.7	248
49	Sensitivity of the Drosophilaparasodium channel to DDT is not lowered by thesuper-kdrmutation M918T on the IIS4-S5 linker that profoundly reduces sensitivity to permethrin and deltamethrin. FEBS Letters, 2005, 579, 6317-6325.	2.8	23
50	Restricted spatial expression of a high-affinity phosphate transporter in potato roots. Journal of Cell Science, 2003, 116, 3135-3144.	2.0	64
51	Expression analysis of putative high-affinity phosphate transporters in Chinese winter wheats. Plant, Cell and Environment, 2002, 25, 1325-1339.	5.7	53
52	Do plants have more genes than humans? Yes, when it comes to ABC proteins. Trends in Plant Science, 2001, 6, 347-348.	8.8	23
53	The Arabidopsis thaliana ABC Protein Superfamily, a Complete Inventory. Journal of Biological Chemistry, 2001, 276, 30231-30244.	3.4	484
54	TheArabidopsis thalianaATPâ€binding cassette proteins: an emerging superfamily. Plant, Cell and Environment, 2000, 23, 431-443.	5.7	66

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55	Structural aspects of the effectiveness of bisphosphonates as competitive inhibitors of the plant vacuolar proton-pumping pyrophosphatase. Biochemical Journal, 1999, 337, 373.	3.7	9
56	Detoxification of xenobiotics by plants: chemical modification and vacuolar compartmentation. Trends in Plant Science, 1997, 2, 144-151.	8.8	551
57	Cloning and characterisation of a novel P-glycoprotein homologue from barley. Gene, 1997, 199, 195-202.	2.2	36
58	An analysis of vacuole development in oat aleurone protoplasts. Planta, 1996, 198, 356-364.	3.2	18
59	Leaf Senescence in a Non-Yellowing Mutant of Festuca pratensis. Transcripts and Translation Products. Journal of Plant Physiology, 1992, 139, 403-412.	3.5	31
60	Development of a probenecid-sensitive Lucifer Yellow transport system in vacuolating oat aleurone protoplasts. Journal of Cell Science, 1992, 102, 133-139.	2.0	14
61	Co-ordination of chromophore-apoprotein synthesis in the developing leaf of <i>Avena sativa</i> L. Biochemical Society Transactions, 1990, 18, 499-500.	3.4	1
62	Leaf development in Lolium temulentum: Gradients of RNA complement and plastid and non-plastid transcripts. Physiologia Plantarum, 1990, 79, 331-338.	5.2	46
63	Immunochemical quantification of cytochrome f in leaves of a non-yellowing senescence mutant of Festuca pratensis. Photosynthesis Research, 1990, 24, 99-108.	2.9	12
64	Leaf Development inLolium temulentum: Formation of the Photosynthetic Apparatus in the Presence of the Porphyrin Synthesis Inhibitor Gabaculine. Journal of Experimental Botany, 1990, 41, 905-917.	4.8	10
65	Leaf Senescence in a Nonyellowing Mutant of <i>Festuca pratensis</i>. Plant Physiology, 1990, 93, 588-595.	4.8	26
66	Leaf development in Lolium temulentum: plastid membrane polypeptides in relation to assembly of the photosynthetic apparatus and leaf growth. Physiologia Plantarum, 1989, 75, 47-54.	5.2	24
67	Catabolism of cytochrome f in a senescence mutant of Festuca pratensis. Biochemical Society Transactions, 1988, 16, 1054-1054.	3.4	2