# T G Emyr Davies

List of Publications by Year
in descending order



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

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Genome Sequence of the Pea Aphid Acyrthosiphon pisum. PLoS Biology, 2010, 8, e1000313. | 5.6 | 913 |
| 2 | Detoxification of xenobiotics by plants: chemical modification and vacuolar compartmentation. Trends in Plant Science, 1997, 2, 144-151. | 8.8 | 551 |
| 3 | The Arabidopsis thaliana ABC Protein Superfamily, a Complete Inventory. Journal of Biological Chemistry, 2001, 276, 30231-30244. | 3.4 | 484 |
| 4 | DDT, pyrethrins, pyrethroids and insect sodium channels. IUBMB Life, 2007, 59, 151-162. | 3.4 | 476 |
| 5 | 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 |
| 6 | Modelling insecticide-binding sites in the voltage-gated sodium channel. Biochemical Journal, 2006, 396, 255-263. | 3.7 | 248 |
| 7 | Unravelling the Molecular Determinants of Bee Sensitivity to Neonicotinoid Insecticides. Current Biology, 2018, 28, 1137-1143.e5. | 3.9 | 234 |
| 8 | 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 |
| 9 | 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 |
| 10 | 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 |
| 11 | Voltage-gated sodium channels as targets for pyrethroid insecticides. European Biophysics Journal, 2017, 46, 675-679. | 2.2 | 116 |
| 12 | 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 |
| 13 | Diamide resistance: 10Âyears of lessons from lepidopteran pests. Journal of Pest Science, 2020, 93, 911-928. | 3.7 | 100 |
| 14 | 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 |
| 15 | 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 |
| 16 | Ion channels as insecticide targets. Journal of Neurogenetics, 2016, 30, 163-177. | 1.4 | 84 |
| 17 | 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 |
| 18 | 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 |

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|---|---|---|---|
| 19 | 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 |
| 20 | Genomic insights into neonicotinoid sensitivity in the solitary bee Osmia bicornis. PLoS Genetics, 2019, 15, e1007903. | 3.5 | 68 |
| 21 | An Amino Acid Substitution (L925V) Associated with Resistance to Pyrethroids in Varroa destructor. PLoS ONE, 2013, 8, e82941. | 2.5 | 67 |
| 22 | 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 |
| 23 | TheArabidopsis thalianaATPâ€binding cassette proteins: an emerging superfamily. Plant, Cell and Environment, 2000, 23, 431-443. | 5.7 | 66 |
| 24 | Knockdown resistance to DDT and pyrethroids: from targetâ€site mutations to molecular modelling. Pest Management Science, 2008, 64, 1126-1130. | 3.4 | 65 |
| 25 | Restricted spatial expression of a high-affinity phosphate transporter in potato roots. Journal of Cell Science, 2003, 116, 3135-3144. | 2.0 | 64 |
| 26 | Pest control and resistance management through release of insects carrying a male-selecting transgene. BMC Biology, 2015, 13, 49. | 3.8 | 59 |
| 27 | Expression analysis of putative high-affinity phosphate transporters in Chinese winter wheats. Plant, Cell and Environment, 2002, 25, 1325-1339. | 5.7 | 53 |
| 28 | 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 |
| 29 | Leaf development in Lolium temulentum: Gradients of RNA complement and plastid and non-plastid transcripts. Physiologia Plantarum, 1990, 79, 331-338. | 5.2 | 46 |
| 30 | Identification of ion channel genes in the <i>Acyrthosiphon pisum</i> genome. Insect Molecular Biology, 2010, 19, 141-153. | 2.0 | 46 |
| 31 | 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 |
| 32 | 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 |
| 33 | 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 |
| 34 | Cloning and characterisation of a novel P-glycoprotein homologue from barley. Gene, 1997, 199, 195-202. | 2.2 | 36 |
| 35 | An overview of functional genomic tools in deciphering insecticide resistance. Current Opinion in Insect Science, 2018, 27, 103-110. | 4.4 | 33 |
| 36 | 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 |

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|---|---|---|---|
| 37 | 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 |
| 38 | 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 |
| 39 | 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 |
| 40 | 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 |
| 41 | Leaf Senescence in a Nonyellowing Mutant of <i>Festuca pratensis</i>. Plant Physiology, 1990, 93, 588-595. | 4.8 | 26 |
| 42 | 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 |
| 43 | 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 |
| 44 | 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 |
| 45 | An evolutionarilyâ€unique heterodimeric voltageâ€gated cation channel found in aphids. FEBS Letters, 2015, 589, 598-607. | 2.8 | 21 |
| 46 | An analysis of vacuole development in oat aleurone protoplasts. Planta, 1996, 198, 356-364. | 3.2 | 18 |
| 47 | Assessing the acute toxicity of insecticides to the buff-tailed bumblebee (Bombus terrestris audax). Pesticide Biochemistry and Physiology, 2020, 166, 104562. | 3.6 | 18 |
| 48 | Fly-Tox: A panel of transgenic flies expressing pest and pollinator cytochrome P450s. Pesticide Biochemistry and Physiology, 2020, 169, 104674. | 3.6 | 15 |
| 49 | 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 |
| 50 | 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 |
| 51 | 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 |
| 52 | 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 |
| 53 | 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 |
| 54 | An analysis of variability in genome organisation of intracellular calcium release channels across insect orders. Gene, 2018, 670, 70-86. | 2.2 | 10 |

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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 | 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 |
| 57 | 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 |
| 58 | 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 |
| 59 | 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 |
| 60 | Chimeric Investigations into the Diamide Binding Site on the Lepidopteran Ryanodine Receptor. International Journal of Molecular Sciences, 2021, 22, 13033. | 4.1 | 5 |
| 61 | 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 |
| 62 | Aphid genomics and its contribution to understanding aphids as crop pests.. , 2017, , 37-49. | | 3 |
| 63 | Acute Imidacloprid Exposure Alters Mitochondrial Function in Bumblebee Flight Muscle and Brain. Frontiers in Insect Science, 2021, 1, . | 2.1 | 3 |
| 64 | Catabolism of cytochrome f in a senescence mutant of Festuca pratensis. Biochemical Society Transactions, 1988, 16, 1054-1054. | 3.4 | 2 |
| 65 | 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 |
| 66 | 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 |
| 67 | Insecticide Binding to Voltage-gated Sodium Channels. Biophysical Journal, 2009, 96, 14a. | 0.5 | 0 |