Ren Feyereisen

List of Publications by Citations

124 papers	12,339 citations	54 h-index	110 g-index
128 ext. papers	13,866 ext. citations	5.9 avg, IF	6.41 L-index

#	Paper	IF	Citations
124	The P450 superfamily: update on new sequences, gene mapping, accession numbers, early trivial names of enzymes, and nomenclature. *DNA and Cell Biology*, **1993**, 12, 1-51	3.6	1461
123	The P450 superfamily: update on new sequences, gene mapping, and recommended nomenclature. *DNA and Cell Biology*, **1991**, 10, 1-14	3.6	979
122	Insect P450 enzymes. *Annual Review of Entomology*, **1999**, 44, 507-33	21.8	731
121	The genome of Tetranychus urticae reveals herbivorous pest adaptations. *Nature*, **2011**, 479, 487-92	50.4	684
120	Cytochromes P450: a success story. *Genome Biology*, **2000**, 1, REVIEWS3003	18.3	590
119	A knock-out mutation in allene oxide synthase results in male sterility and defective wound signal transduction in Arabidopsis due to a block in jasmonic acid biosynthesis. *Plant Journal*, **2002**, 31, 1-12	6.9	462
118	Evolution of supergene families associated with insecticide resistance. *Science*, **2002**, 298, 179-81	33.3	452
117	CYP83B1, a cytochrome P450 at the metabolic branch point in auxin and indole glucosinolate biosynthesis in Arabidopsis. *Plant Cell*, **2001**, 13, 101-11	11.6	311
116	An insect-specific P450 oxidative decarbonylase for cuticular hydrocarbon biosynthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 14858-63	11.5	282
115	A link between host plant adaptation and pesticide resistance in the polyphagous spider mite Tetranychus urticae. *Proceedings of the National Academy of Sciences of the United States of America* , **2013**, 110, E113-22	11.5	252
114	The cytochrome P450 gene superfamily in Drosophila melanogaster: annotation, intron-exon organization and phylogeny. *Gene*, **2001**, 262, 189-98	3.8	237
113	A rapid partition assay for routine analysis of juvenile hormone release by insect corpora allata. *Analytical Biochemistry*, **1981**, 111, 372-5	3.1	207
112	Insect CYP Genes and P450 Enzymes **2012**, 236-316		204
111	The involvement of two p450 enzymes, CYP83B1 and CYP83A1, in auxin homeostasis and glucosinolate biosynthesis. *Plant Physiology*, **2001**, 127, 108-18	6.6	195
110	Identification of an allatostatin from adult Diploptera punctata. *Biochemical and Biophysical Research Communications*, **1989**, 163, 1243-7	3.4	194
109	Arthropod CYPomes illustrate the tempo and mode in P450 evolution. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2011**, 1814, 19-28	4	172
108	Genotype to phenotype, the molecular and physiological dimensions of resistance in arthropods. *Pesticide Biochemistry and Physiology*, **2015**, 121, 61-77	4.9	159

107	Intron-exon organization and phylogeny in a large superfamily, the paralogous cytochrome P450 genes of Arabidopsis thaliana. *DNA and Cell Biology*, **2000**, 19, 307-17	3.6	153
106	Genomic innovations, transcriptional plasticity and gene loss underlying the evolution and divergence of two highly polyphagous and invasive Helicoverpa pest species. *BMC Biology*, **2017**, 15, 63	7.3	150
105	Electron transfer by diflavin reductases. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2004**, 1698, 1-26	4	147
104	Whole genome analysis of a schistosomiasis-transmitting freshwater snail. *Nature Communications*, **2017**, 8, 15451	17.4	138
103	Xenobiotic response in Drosophila melanogaster: sex dependence of P450 and GST gene induction. *Insect Biochemistry and Molecular Biology*, **2006**, 36, 674-82	4.5	121
102	Ecdysterone biosynthesis: a microsomal cytochrome-P-450-linked ecdysone 20-monooxygenase from tissues of the African migratory locust. *FEBS Journal*, **1978**, 88, 37-47		119
101	Expression of house fly CYP6A1 and NADPH-cytochrome P450 reductase in Escherichia coli and reconstitution of an insecticide-metabolizing P450 system. *Biochemistry*, **1994**, 33, 2171-7	3.2	118
100	Multifaceted biological insights from a draft genome sequence of the tobacco hornworm moth, Manduca sexta. *Insect Biochemistry and Molecular Biology*, **2016**, 76, 118-147	4.5	112
99	CYP12A1, a mitochondrial cytochrome P450 from the house fly. *Archives of Biochemistry and Biophysics*, **1998**, 359, 231-40	4.1	108
98	Systematic reverse genetics of transfer-DNA-tagged lines of Arabidopsis. Isolation of mutations in the cytochrome p450 gene superfamily. *Plant Physiology*, **1998**, 118, 743-50	6.6	105
97	The Drosophila cytochrome P450 gene Cyp6a2: structure, localization, heterologous expression, and induction by phenobarbital. *DNA and Cell Biology*, **1997**, 16, 1345-56	3.6	101
96	Microarray-based analysis of gene expression in very large gene families: the cytochrome P450 gene superfamily of Arabidopsis thaliana. *Gene*, **2001**, 272, 61-74	3.8	98
95	A gene horizontally transferred from bacteria protects arthropods from host plant cyanide poisoning. *ELife*, **2014**, 3, e02365	8.9	95
94	Enzymic synthesis of juvenile hormone in locust corpora allata: evidence for a microsomal cytochrome P-450 linked methyl farnesoate epoxidase. *FEBS Journal*, **1981**, 118, 231-8		95
93	CYP6AE gene cluster knockout in Helicoverpa armigera reveals role in detoxification of phytochemicals and insecticides. *Nature Communications*, **2018**, 9, 4820	17.4	86
92	Inducible P450s of the CYP9 family from larval Manduca sexta midgut. *Insect Biochemistry and Molecular Biology*, **2000**, 30, 559-68	4.5	85
91	Origins of P450 diversity. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2013**, 368, 20120428	5.8	81
90	Identification of three allatostatins and their cDNA from the mosquito Aedes aegypti. *Peptides*, **1997**, 18, 937-42	3.8	69

89	Farnesoic acid stimulation of C16 juvenile hormone biosynthesis by corpora allata of adult female Diploptera punctata. *Insect Biochemistry*, **1981**, 11, 401-409		69
88	Arabidopsis cyp51 mutant shows postembryonic seedling lethality associated with lack of membrane integrity. *Plant Physiology*, **2005**, 138, 2033-47	6.6	68
87	A valine421 to methionine mutation in IS6 of the hscp voltage-gated sodium channel associated with pyrethroid resistance in Heliothis virescens F. *Biochemical and Biophysical Research Communications*, **1997**, 239, 688-91	3.4	66
86	Insect P450 inhibitors and insecticides: challenges and opportunities. *Pest Management Science*, **2015**, 71, 793-800	4.6	64
85	Molecular cloning, overexpression in Escherichia coli, structural and functional characterization of house fly cytochrome b5. *Journal of Biological Chemistry*, **1996**, 271, 26637-45	5.4	63
84	Dynamics of ecdysone metabolism after ingestion and injection in Locusta migratoria. *General and Comparative Endocrinology*, **1976**, 29, 319-27	3	61
83	Phylogenomics of the benzoxazinoid biosynthetic pathway of Poaceae: gene duplications and origin of the Bx cluster. *BMC Evolutionary Biology*, **2012**, 12, 64	3	60
82	Stimulation of JH biosynthesis by the corpora allata of adult female Aedes aegypti in vitro: effect of farnesoic acid and Aedes allatotropin. *Journal of Experimental Biology*, **2003**, 206, 1825-32	3	60
81	Induction of cytochrome P-450 activities by nicotine in the tobacco hornworm,Manduca sexta. *Journal of Chemical Ecology*, **1993**, 19, 2903-16	2.7	60
80	Functional interactions in cytochrome P450BM3: flavin semiquinone intermediates, role of NADP(H), and mechanism of electron transfer by the flavoprotein domain. *Biochemistry*, **1997**, 36, 8401-12	3.2	58
79	Changes in the sensitivity of adult cockroach corpora allata to a brain allatostatin. *Molecular and Cellular Endocrinology*, **1990**, 70, 185-95	4.4	58
78	Regulation of cytochrome P450 expression in Drosophila: Genomic insights. *Pesticide Biochemistry and Physiology*, **2010**, 97, 115-122	4.9	57
77	Multiple P450 genes overexpressed in deltamethrin-resistant strains of Helicoverpa armigera. *Pest Management Science*, **2010**, 66, 900-9	4.6	57
76	Substrate specificity for the epoxidation of terpenoids and active site topology of house fly cytochrome P450 6A1. *Chemical Research in Toxicology*, **1997**, 10, 156-64	4	55
75	Gene expression profiling of Spodoptera frugiperda hemocytes and fat body using cDNA microarray reveals polydnavirus-associated variations in lepidopteran host genes transcript levels. *BMC Genomics*, **2006**, 7, 160	4.5	55
74	A cluster of cytochrome P450 genes of the CYP6 family in the house fly. *DNA and Cell Biology*, **1995**, 14, 73-82	3.6	55
73	The allatostatic effect of 20-hydroxyecdysone on the adult viviparous cockroach, Diploptera punctata. *Journal of Insect Physiology*, **1980**, 26, 665-670	2.4	55
72	The Toxicogenome of Hyalella azteca: A Model for Sediment Ecotoxicology and Evolutionary Toxicology. *Environmental Science & Technology*, **2018**, 52, 6009-6022	10.3	54

71	Glutathione S-transferases from larval Manduca sexta midgut: sequence of two cDNAs and enzyme induction. *Insect Biochemistry and Molecular Biology*, **1995**, 25, 455-65	4.5	54
70	Antifeedant activity of Jatropha gossypifolia and Melia azedarach senescent leaf extracts on Spodoptera frugiperda (Lepidoptera: Noctuidae) and their potential use as synergists. *Pest Management Science*, **2012**, 68, 1255-64	4.6	53
69	Synthesis and degradation of C16 juvenile hormone (JH III) during the final two stadia of the cockroach, Diploptera punctata. *General and Comparative Endocrinology*, **1982**, 48, 25-32	3	52
68	Mechanisms of resistance to malathion in the medfly Ceratitis capitata. *Insect Biochemistry and Molecular Biology*, **2008**, 38, 756-62	4.5	51
67	Metabolic fate of the allelochemical nicotine in the tobacco hornworm Manduca sexta. *Insect Biochemistry and Molecular Biology*, **1994**, 24, 837-846	4.5	51
66	Structure and chromosomal localization of CYP6A1, a cytochrome P450-encoding gene from the house fly. *Gene*, **1994**, 146, 267-72	3.8	51
65	Characterization and regulation of HMG-CoA reductase during a cycle of juvenile hormone synthesis. *Molecular and Cellular Endocrinology*, **1987**, 53, 227-38	4.4	51
64	Drosophila melanogaster CYP6A8, an insect P450 that catalyzes lauric acid (omega-1)-hydroxylation. *Biochemical and Biophysical Research Communications*, **2004**, 325, 1495-502	3.4	49
63	Target of cockroach allatostatin in the pathway of juvenile hormone biosynthesis. *Molecular and Cellular Endocrinology*, **1996**, 120, 115-23	4.4	49
62	Development of microsomal cytochrome P-450 monooxygenases during the last larval instar of the locust, Locusta migratoria: correlation with the hemolymph 20-hydroxyecdysone titer. *Molecular and Cellular Endocrinology*, **1980**, 20, 157-69	4.4	49
61	P450 reductase and cytochrome b5 interactions with cytochrome P450: effects on house fly CYP6A1 catalysis. *Insect Biochemistry and Molecular Biology*, **2008**, 38, 1008-15	4.5	47
60	Activity of the corpora allata of adult female Aedes aegypti: effects of mating and feeding. *Insect Biochemistry and Molecular Biology*, **2003**, 33, 1307-15	4.5	47
59	Does host plant adaptation lead to pesticide resistance in generalist herbivores?. *Current Opinion in Insect Science*, **2018**, 26, 25-33	5.1	44
58	Phylogenetic and functional characterization of ten P450 genes from the CYP6AE subfamily of Helicoverpa armigera involved in xenobiotic metabolism. *Insect Biochemistry and Molecular Biology*, **2018**, 93, 79-91	4.5	42
57	Functional interactions in cytochrome P450BM3. Fatty acid substrate binding alters electron-transfer properties of the flavoprotein domain. *Biochemistry*, **1996**, 35, 15029-37	3.2	42
56	Spider mite control and resistance management: does a genome help?. *Pest Management Science*, **2013**, 69, 156-9	4.6	41
55	Interaction of NADP(H) with oxidized and reduced P450 reductase during catalysis. Studies with nucleotide analogues. *Biochemistry*, **2000**, 39, 5066-74	3.2	39
54	Kinetic mechanism of cytochrome P450 reductase from the house fly (Musca domestica). *Insect Biochemistry and Molecular Biology*, **1999**, 29, 233-42	4.5	37

53	Diversity and evolution of the P450 family in arthropods. *Insect Biochemistry and Molecular Biology*, **2020**, 127, 103490	4.5	37
52	Origin and evolution of the CYP4G subfamily in insects, cytochrome P450 enzymes involved in cuticular hydrocarbon synthesis. *Molecular Phylogenetics and Evolution*, **2020**, 143, 106695	4.1	36
51	Terpenoid omega-hydroxylase (CYP4C7) messenger RNA levels in the corpora allata: a marker for ovarian control of juvenile hormone synthesis in Diploptera punctata. *Journal of Insect Physiology*, **2000**, 46, 1219-1227	2.4	34
50	Juvenile hormone III biosynthesis. *Insect Biochemistry*, **1984**, 14, 657-661		34
49	A diazepam binding inhibitor (DBI) homolog from the tobacco hornworm, Manduca sexta. *Molecular and Cellular Endocrinology*, **1993**, 94, R1-4	4.4	33
48	Evidence for an inhibitory role of cyclic AMP in the control of juvenile hormone biosynthesis by cockroach corpora allata. *Molecular and Cellular Endocrinology*, **1985**, 43, 155-63	4.4	33
47	High-resolution QTL mapping in Tetranychus urticae reveals acaricide-specific responses and common target-site resistance after selection by different METI-I acaricides. *Insect Biochemistry and Molecular Biology*, **2019**, 110, 19-33	4.5	32
46	Two functionally distinct CYP4G genes of Anopheles gambiae contribute to cuticular hydrocarbon biosynthesis. *Insect Biochemistry and Molecular Biology*, **2019**, 110, 52-59	4.5	28
45	Resistance to lambda-cyhalothrin in Spanish field populations of Ceratitis capitata and metabolic resistance mediated by P450 in a resistant strain. *Pest Management Science*, **2015**, 71, 1281-91	4.6	28
44	Sampling P450 diversity by cloning polymerase chain reaction products obtained with degenerate primers. *Methods in Enzymology*, **1996**, 272, 304-12	1.7	26
43	Cytochrome P450 in the house fly: Structure, catalytic activity and regulation of expression of CYP6 A1 in an insecticide-resistant strain. *Pest Management Science*, **1995**, 43, 233-239		26
42	Inhibition of juvenile hormone biosynthesis and methyl farnesoate epoxidase activity by 1,5-disubstituted imidazoles in the cockroach, Diploptera punctata. *Pest Management Science*, **1995**, 43, 13-19		25
41	Cytochrome P450 gene clusters in Drosophila melanogaster. *Molecular Genetics and Genomics*, **1996** , 251, 290-7		25
40	Self-catalyzed destruction of insect cytochrome. *Insect Biochemistry*, **1984**, 14, 19-26		24
39	Regulation of ecdysone hydroxylation in Locusta migratoria: Role of the moulting hormone level. *Journal of Insect Physiology*, **1977**, 23, 1175-1181	2.4	23
38	Chimeragenesis of the fatty acid binding site of cytochrome P450BM3. Replacement of residues 73-84 with the homologous residues from the insect cytochrome P450 CYP4C7. *Biochemistry*, **2004**, 43, 1771-80	3.2	22
37	Functional interactions in cytochrome P450BM3. Evidence that NADP(H) binding controls redox potentials of the flavin cofactors. *Biochemistry*, **2000**, 39, 12699-707	3.2	22
36	Ecdysone 20-monooxygenase, a cytochrome P450 enzyme from spinach, Spinacia oleracea. *Phytochemistry*, **1996**, 42, 927-933	4	22

35	Assay of HMG-CoA synthase in Diploptera punctata corpora allata. *Insect Biochemistry*, **1991**, 21, 131-135		22
34	Establishment and analysis of a reference transcriptome for Spodoptera frugiperda. *BMC Genomics*, **2014**, 15, 704	4.5	20
33	Reduced proinsecticide activation by cytochrome P450 confers coumaphos resistance in the major bee parasite. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	19
32	Mechanism of cytochrome P450 reductase from the house fly: evidence for an FMN semiquinone as electron donor. *FEBS Letters*, **1999**, 453, 201-4	3.8	16
31	Inhibition of insect juvenile hormone synthesis by phorbol 12-myristate 13-acetate. *FEBS Letters*, **1987**, 222, 345-8	3.8	16
30	Resistance and the jumping gene. *BioEssays*, **2006**, 28, 6-8	4.1	15
29	Structure and stereochemistry of products of hydroxylation of human steroid hormones by a housefly cytochrome P450 (CYP6A1). *Magnetic Resonance in Chemistry*, **2006**, 44, 467-74	2.1	15
28	The Role of Cytochrome P450s in Insect Toxicology and Resistance. *Annual Review of Entomology*, **2021**,	21.8	15
27	Sequestration and biosynthesis of cyanogenic glucosides in passion vine butterflies and consequences for the diversification of their host plants. *Ecology and Evolution*, **2019**, 9, 5079-5093	2.8	14
26	Nuclear receptors HR96 and ultraspiracle from the fall armyworm (Spodoptera frugiperda), developmental expression and induction by xenobiotics. *Journal of Insect Physiology*, **2013**, 59, 560-8	2.4	14
25	Analysis of the interactions of cytochrome b5 with flavocytochrome P450 BM3 and its domains. *Drug Metabolism Reviews*, **2007**, 39, 599-617	7	13
24	CYP303A1 has a conserved function in adult eclosion in Locusta migratoria and Drosophila melanogaster. *Insect Biochemistry and Molecular Biology*, **2019**, 113, 103210	4.5	12
23	Effects of hormone agonists on Sf9 cells, proliferation and cell cycle arrest. *PLoS ONE*, **2011**, 6, e25708	3.7	12
22	Inhibition of insect cytochrome P-450 by some metyrapone analogues and compounds containing a cyclopropylamine moiety and their evaluation as inhibitors of juvenile hormone biosynthesis. *Pest Management Science*, **1988**, 24, 205-219		11
21	Genome mapping coupled with CRISPR gene editing reveals a P450 gene confers avermectin resistance in the beet armyworm. *PLoS Genetics*, **2021**, 17, e1009680	6	11
20	Knockdown of LmCYP303A1 alters cuticular hydrocarbon profiles and increases the susceptibility to desiccation and insecticides in Locusta migratoria. *Pesticide Biochemistry and Physiology*, **2020**, 168, 104637	4.9	9
19	The silkworm coming of age--early. *PLoS Genetics*, **2012**, 8, e1002591	6	9
18	A Mutation Leu1029 to His in Heliothis virescens F. hscp Sodium Channel Gene Associated with a Nerve-Insensitivity Mechanism of Resistance to Pyrethroid Insecticides. *Pesticide Biochemistry and Physiology*, **2000**, 66, 1-8	4.9	9

17	Genome streamlining in a minute herbivore that manipulates its host plant. *ELife*, **2020**, 9,	8.9	9
16	CYP83B1, a Cytochrome P450 at the Metabolic Branch Point in Auxin and Indole Glucosinolate Biosynthesis in Arabidopsis. *Plant Cell*, **2001**, 13, 101	11.6	8
15	Pyrethroid metabolism by eleven Helicoverpa armigera P450s from the CYP6B and CYP9A subfamilies. *Insect Biochemistry and Molecular Biology*, **2021**, 135, 103597	4.5	8
14	Approach to systematic analysis of serine/threonine phosphoproteome using Beta elimination and subsequent side effects: intramolecular linkage and/or racemisation. *Journal of Cellular Biochemistry*, **2007**, 100, 875-82	4.7	7
13	Two Types of Allatostatic Peptides from Brains of the Cockroach Diploptera punctata. *ACS Symposium Series*, **1991**, 177-192	0.4	7
12	Activity of the corpora allata of adult female Leucophaea maderae: effects of mating and feeding. *Archives of Insect Biochemistry and Physiology*, **1990**, 14, 121-9	2.3	7
11	Both LmCYP4G genes function in decreasing cuticular penetration of insecticides in Locusta migratoria. *Pest Management Science*, **2020**, 76, 3541-3550	4.6	6
10	Toxicology: Bee P450s Take the Sting out of Cyanoamidine Neonicotinoids. *Current Biology*, **2018**, 28, R560-R562	6.3	6
9	Evolution of the Biosynthetic Pathway for Cyanogenic Glucosides in Lepidoptera. *Journal of Molecular Evolution*, **2018**, 86, 379-394	3.1	5
8	Molecular modifications of benzylphenol and benzyl-1,3-benzodioxole types of insect chemosterilants. *Pest Management Science*, **1986**, 17, 13-24		4
7	Analysis and preliminary characterisation of the cytochrome P450 monooxygenases from Frankia sp. EuI1c (Frankia inefficax sp.). *Archives of Biochemistry and Biophysics*, **2019**, 669, 11-21	4.1	3
6	Cytochrome P450-mediated Metabolic Resistance to Insecticides in the House Fly, Musca domestica.. *Nippon Nogeikagaku Kaishi*, **1999**, 73, 1043-1051		3
5	Insect CYP Genes and P450 Enzymes **2019**,		3
4	Diagnosis and characterization of insecticide-insensitive acetylcholinesterase in three populations of the sweetpotato whitefly Bemisia tabaci **1998**, 52, 39		3
3	Inhibition of juvenile hormone III biosynthesis in cockroach corpora allata by interference with the S-adenosylmethionine-dependent transmethylation. *Archives of Insect Biochemistry and Physiology*, **1987**, 5, 179-188	2.3	2
2	Epoxidation of juvenile hormone was a key innovation improving insect reproductive fitness. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	2
1	The P450 genes of the cat flea, Ctenocephalides felis: a CYPome in flux. *Current Research in Insect Science*, **2022**, 2, 100032		