

9. REFERENCES

- *Abd El-Aziz MI, Sahlab AM, Abd El-Khalik M. 1994. Influence of diazinon and deltamethrine on reproductive organs and fertility of male rats. *Dtsch Tierärztl Wochenshr* 101:213-248.
- *Abd El-Khalek MM, Rahmy NA, Haleem HH. 1999. Effect of the pyrethroid insecticide cypermethrin on fertility in male rats. *Vet Med J Giza* 47(3):295-305.
- Abd El-Raheem K, El-Elaimy I, El-Mossallamy N, et al. 1987. Biochemical responses to induced intoxication with insecticides: 1. Effect of acute and repeated administration of pyrethroid (ripcord). *Proc Zool Soc AR Egypt* 13:141-156.
- *Abdel-Khalik MM, Hanafy MSM, Abdel-Aziz MI. 1993. Studies on the teratogenic effects of deltamethrin in rats. *Dtsch Tierärztl Wochenshr* 100:129-168.
- Abdel-Rahman A, Shetty AK, Abdou-Donia MB. 2001. Subchronic dermal application of N,N-diethyl m-toluamide (DEET) and permethrin to adult rats, alone or in combination, causes diffuse neuronal cell death and cytoskeletal abnormalities in the cerebral cortex and the hippocampus, and purkinje neuron loss in the cerebellum. *Exp Neurol* 172:153-171.
- Abernathy CO, Ueda K, Engel JL, et al. 1973. Substrate-specificity and toxicological significance of pyrethroid-hydrolyzing esterases of mouse liver microsomes. *Pestic Biochem Physiol* 3:300-311.
- Abou-Donia MB, Goldstein LB, Dechovsaia A, et al. 2001. Effects of daily dermal application of DEET and permethrin, alone and in combination, on sensorimotor performance, blood-brain barrier, and blood-testes barrier in rats. *J Toxicol Environ Health* 62:523-541.
- Abou-Donia MB, Wilmarth KR, Jensen KF, et al. 1996. Neurotoxicity resulting from coexposure to pyridostigmine bromide, DEET, and permethrin: Implications of Gulf War chemical exposures. *J Toxicol Environ Health* 48:35-56.
- *Abu-Qare AW, Abou-Donia MB. 2001a. Combined exposure to DEET (N,N-diethyl-*m*-toluamide) and permethrin-induced release of rat brain mitochondrial cytochrome c. *J Toxicol Environ Health* 63:243-252.
- Abu-Qare AW, Abou-Donia MB. 2001b. DEET (N,N-diethyl-*m*-toluamide) alone and in combination with permethrin increased urinary excretion of 6 β -hydroxycortisol in rats, a marker of hepatic CYP3A induction. *J Toxicol Environ Health A* 64:373-384.
- Abu-Qare AW, Abou-Donia MB. 2003. Combined exposure to DEET (N,N-diethyl-*m*-toluamide) and permethrin: Pharmacokinetics and toxicological effects. *J Toxicol Environ Health B* 6:41-53.
- *ACGIH. 2000. TLVs and BEIs: Threshold limit values for chemical substances and physical agents and biological exposure indices. Cincinnati, OH: American Conference of Governmental Industrial Hygienists.

* Cited in text

9. REFERENCES

- *Adamis Z, Antal A, Füzési I, et al. 1985. Occupational exposure to organophosphorus insecticides and synthetic pyrethroid. *Int Arch Occup Environ Health* 56:299-305.
- *Adinolfi M. 1985. The development of the human blood-CSF-brain barrier. *Dev Med Child Neurol* 27:532-537.
- *Adlercreutz H. 1995. Phytoestrogens: Epidemiology and a possible role in cancer protection. *Environ Health Perspect Suppl* 103(7):103-112.
- *Agarwal DK, Chauhan LKS, Gupta S, et al. 1994. Cytogenetic effects of deltamethrin on rat bone marrow. *Mutat Res* 311:133-138.
- *Agency for Toxic Substances and Disease Registry. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles; Notice. Agency for Toxic Substances and Disease Registry. *Federal Register* 54 (174):37618-37634.
- *Agnihotri NP, Jain HK. 1987. Persistence of flucythrinate and fluvalinate in soil, water and sediment. *Pesticides* 21(6):36-38.
- Agnihotri NP, Jain HK, Gajbhiye VT, et al. 1989. Persistence of some synthetic pyrethroids and organophosphorus insecticides in soil, water and sediment part II. *J Entomol Res* 13(2):131-136.
- *Ahlbom J, Fredriksson A, Eriksson P. 1994. Neonatal exposure to a Type-I pyrethroid (bioallethrin) induces dose-response changes in brain muscarinic receptors and behaviour in neonatal and adult mice. *Brain Res* 645:318-324.
- Akhtar MH, Danis C, Trenholm D, et al. 1992. Deltamethrin residues in milk and tissues of lactating dairy cows. *J Environ Sci Health B* 27(3):235-253.
- *Akhtar N, Kayani SA, Ahmad MM, et al. 1996. Insecticide-induced changes in secretory activity of the thyroid gland in rats. *J Appl Toxicol* 16(5):397-400.
- *Alawi MA, Gharaibeh S, Al-Shureiki Y. 1990. Ruckstandsuntersuchungen auf fenitrothion und pyrethroide in wasser, boden und pflanzen nach der heuschreckenbekaempfung in Jordanien 1989. *Chemosphere* 20(3-4):443-447.
- Aldana L, González de Mejía E, Craigmill A, et al. 1998. Cypermethrin increases apo A-1 and apo B mRNA but not hyperlipidemia in rats. *Toxicol Lett* 95:31-39.
- Aldana L, Tsutsumi V, Craigmill A, et al. 2001. α -Tocopherol modulates liver toxicity of the pyrethroid cypermethrin. *Toxicol Lett* 125:107-116.
- Aldridge WN. 1980. Mode of action of pyrethroids in mammals: Summary of toxicity and histological, neurophysiological and biochemical studies at Carshalton. In: Mattieu J, ed. *Pyrethroid insecticides: Chemistry and action*. Romainville, France: Roussel Uclaf, 45-47.
- *Aldridge WN. 1990. An assessment of the toxicological properties of pyrethroids and their neurotoxicity. *Crit Rev Toxicol* 21(2):89-104.

9. REFERENCES

- Aldridge WN, Clothier B, Forshaw P, et al. 1978. The effect of DDT and pyrethroids cismethrin and decamethrin on the acetyl choline and cyclic nucleotide content of rat brain. *Biochem Pharmacol* 27:1703-1706.
- Allen GJ, Sanders D. 1995. Calcineurin, a type 2B protein phosphatase, modulates the Ca²⁺-permeable slow vacuolar ion channel of stomatal guard cells. *Plant Cell* 7:1473-1483.
- Altenkirch H, Hopmann D, Brockmeier B, et al. 1996. Neurological investigations in 23 cases of pyrethroid intoxication reported to the German Federal Health Office. *Neurotoxicology* 17:645-652.
- *Altman PL, Dittmer DS. 1974. In: *Biological handbooks: Biology data book*. Vol. III. 2nd ed. Bethesda, MD: Federation of American Societies for Experimental Biology, 1987-2008, 2041.
- *Amer SM, Abd-El Samie Ibrahim A, El-Sherbeny KM. 1993. Induction of chromosomal aberrations and sister chromatid exchange *in vivo* and *in vitro* by the insecticide cypermethrin. *J Appl Toxicol* 13(5):341-345.
- *Anadón A, Martínez-Larrañaga MR, Díaz MJ, et al. 1991a. Effect of deltamethrin on antipyrine pharmacokinetics and metabolism in rat. *Arch Toxicol* 65:156-159.
- *Anadón A, Martínez-Larrañaga MR, Díaz MJ, et al. 1991b. Toxicokinetics of permethrin in the rat. *Toxicol Appl Pharmacol* 110:1-8.
- Anadón A, Martínez-Larrañaga MR, Díaz MJ, et al. 1995. Effects of flumethrin on hepatic drug-metabolizing enzymes and antipyrine disposition in rats. *Toxicol Appl Pharmacol* 132:14-18.
- *Anadón A, Martínez-Larrañaga MR, Fernández-Cruz ML, et al. 1996. Toxicokinetics of deltamethrin and its 4'-HO-metabolite in the rat. *Toxicol Appl Pharmacol* 141:8-16.
- *Andersen ME, Kirshnan K. 1994. Relating *in vitro* to *in vivo* exposures with physiologically based tissue dosimetry and tissue response models. In: Salem H, ed. *Animal test alternatives: Refinement, reduction, and replacement*. New York: Marcel Dekker, Inc., 9-25.
- *Andersen ME, Clewell HJ III, Gargas et al ML. 1987. Physiologically based pharmacokinetics and the risk assessment process for methylene chloride. *Toxicol Appl Pharmacol* 87:185-205.
- *Angerer J, Ritter A. 1997. Determination of metabolites of pyrethroids in human urine using solid-phase extraction and gas chromatography-mass spectrometry. *J Chromatogr B Biomed Appl* 695:217-226.
- Angerer J, Butte W, Hoppe H, et al. 1999. Pyrethroid metabolites (*cis*-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropane-1-carboxylic acid; *trans*-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropane-1-carboxylic acid; *cis*-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropane-1-carboxylic acid; 3-phenoxybenzoic acid; 4-fluoro-3-phenoxybenzoic acid). *Anal Hazard Subst Biol Mater* 6:231-254.
- *Antonious GF, Byers ME, Kerst WC. 1997. Residue levels of pyrethrins and piperonyl butoxide in soil and runoff water. *J Environ Sci Health B* 32(5):621-644.
- Appel KE, Michalak H, Gericke S. 1994. [Health risks from pyrethroids? Data on their neurotoxicity, toxicokinetics and human health disorders.] *Wiss Umwelt* 2:95-108. (German).

9. REFERENCES

- *Aprea C, Stridori A, Sciarra G. 1997. Analytical method for the determination of urinary 3-phenoxybenzoic acid in subjects occupationally exposed to pyrethroid insecticides. *J Chromatogr B Biomed Appl* 695:227-236.
- Asakawa F, Jitsunari F, Miki K, et al. 1996. Agricultural worker exposure to and absorption of permethrin applied to cabbage. *Bull Environ Contam Toxicol* 56:42-49.
- Aziz MH, Agrawal AK, Adhami VM, et al. 2001. Neurodevelopmental consequences of gestational exposure (GD14-GD20) to low dose deltamethrin in rats. *Neurosci Lett* 300:161-165.
- *Badawy MI. 1998. Organic insecticides in airborne suspended particulates. *Bull Environ Contam Toxicol* 60:693-701.
- Balbaa M, Abdelhamid EME, Bassiouny K. 1998. Enhancement of lysosomal enzymes by the pyrethroids, fenvalerate and *trans*-cypermethrin. *Jpn J Toxicol Environ Health (Eisei Kagaku)* 44(2):83-91.
- Bansal N, Sharma SK, Srivastava AK, et al. 1997. Histomorphological and biochemical studies in experimental fluvanilate toxicity in rabbits. *Indian J Anim Sci* 67(4):278-280.
- *Barnes DG, Dourson M. 1988. Reference dose (RfD) description and use in health risk assessments. *Regul Toxicol Pharmacol* 8:471-486.
- *Barrueco C, Herrera A, Caballo C, et al. 1992. Cytogenetic effects of permethrin in cultured human lymphocytes. *Mutagenesis* 7(6):433-437.
- *Barrueco C, Herrera A, Caballo C, et al. 1994. Induction of structural chromosome aberrations in human lymphocyte cultures and CHO cells by permethrin. *Teratog Carcinog Mutagen* 14:31-38.
- *Bartsch H, Malaveille C, Camus AM, et al. 1980. Validation and comparative studies on 180 chemicals with *S. typhimurium* strains and V79 Chinese hamster cells in the presence of various metabolizing systems. *Mutat Res* 76:1-50.
- Bast GE, Taeschner D, Kampffmeyer HG. 1997. Permethrin absorption not detected in single-pass perfused rabbit ear, and absorption with oxidation of 3-phenoxybenzyl alcohol. *Arch Toxicol* 71:179-186.
- Bateman DN. 2000. Management of pyrethroid exposure. *Clin Toxicol* 38(2):107-109.
- *Batiste-Alentorn M, Xamena N, Velázquez A, et al. 1986. Mutagenicity testing of the pyrethroid insecticide cypermethrin in drosophila. *Mutagenesis* 1(5):343-346.
- *Baynes RE, Halling KB, Riviere JE. 1997. The influence of diethyl-*m*-toluamide (DEET) on the percutaneous absorption of permethrin and carbaryl. *Toxicol Appl Pharmacol* 144:332-339.
- *Bennett RS, Klass EE, Coats JR, et al. 1983. Fenvalerate residues in nontarget organisms from treated cotton fields. *Bull Environ Contam Toxicol* 31:61-65.
- *Berger GS. 1994. Epidemiology of endometriosis. In: Berger GS, ed. *Endometriosis: Advanced management and surgical techniques*. New York, NY: Springer-Verlag.

9. REFERENCES

- Bhatnagar R, Kataria M. 1997. Influence of permethrin on certain biochemical parameters in the rat brain. *Med Sci Res* 25:327-328.
- *Bhaumik A, Gupta PK. 1990. Teratogenicity of decamethrin in rats. *Indian Vet J* 2:213-219.
- *Bhunya SP, Pati PC. 1988. Genotoxic effects of a synthetic pyrethroid insecticide, cypermethrin, in mice in vivo. *Toxicol Lett* 41:223-230.
- *Bhunya SP, Pati PC. 1990. Effect of deltamethrin, a synthetic pyrethroid, on the induction of chromosome aberrations, micronuclei and sperm abnormalities in mice. *Mutagenesis* 5(3):229-232.
- Binka FN, Kubaje A, Adjuik M, et al. 1996. Impact of permethrin impregnated bednets on child mortality in Kassena-Nankana district, Ghana: a randomized controlled trial. *Tropical Medicine and International Health* 1(2):147-154.
- *Bissacot DZ, Vassilieff I. 1997a. HPLC determination of flumethrin, deltamethrin, cypermethrin and cyhalothrin residues in the milk and blood of lactating dairy cows. *J Anal Toxicol* 21:397-402.
- *Bissacot DZ, Vassilieff I. 1997b. Pyrethroid residues in milk and blood of dairy cows following single topical applications. *Vet Hum Toxicol* 39(1):6-8.
- *Blaylock BL, Abdel-Nasser M, McCarty SM, et al. 1995. Suppression of cellular immune responses in Balb/c mice following oral exposure to permethrin. *Bull Environ Contam Toxicol* 54:768-774.
- Bloom AS, Staatz CG, Dieringer T. 1983. Pyrethroid effects on operant responding and feeding. *Neurobehav Toxicol Teratol* 5:321-324.
- *Bloomquist JR. 1993. Neuroreceptor mechanisms in pyrethroid mode of action and resistance. In: Roe RM, Kuhr RJ, eds. *Reviews in pesticide toxicology*. Raleigh, NC: Toxicology Communications Inc., 184-230.
- *Bloomquist JR, Adams PM, Soderlund DM. 1986. Inhibition of γ -aminobutyric acid-stimulated chloride flux in mouse brain vesicles by polychlorocycloalkane and pyrethroid insecticides. *Neurotoxicology* 7(3):11-20.
- Blume H-P, Ahlsdorf B. 1993. Prediction of pesticide behavior in soil by means of simple field tests. *Ecotoxicol Environ Saf* 26:313-332.
- BNA. 2001. *Environment and Safety Library on the Web States and Territories*. Bureau of National Affairs, Inc. Washington, D.C. <http://www.esweb.bna.com/>. May 25, 2001.
- *Boehncke A, Siebers J, Nolting H-G. 1990. Investigations of the evaporation of selected pesticides from natural and model surfaces in field and laboratory. *Chemosphere* 21(9):1109-1124.
- *Box SA, Lee MR. 1996. A systemic reaction following exposure to a pyrethroid insecticide. *Hum Exp Toxicol* 15:389-390.
- *Bradbury JE, Forshaw PJ, Gray AJ, et al. 1983. The action of mephenesin and other agents on the effects produced by two neurotoxic pyrethroids in the intact and spinal rat. *Neuropharmacology* 22(7):907-914.

9. REFERENCES

- Bradbury JE, Gray AJ, Forshaw P. 1981. Protection against pyrethroid toxicity in rats with mephenesin. *Toxicol Appl Pharmacol* 60:382-384.
- Bradbury SP, Coats JR. 1982. Toxicity of fenvalerate to bobwhite quail (*Colinus virginianus*) including brain and liver residues associated with mortality. *J Toxicol Environ Health* 10:307-319.
- Bradbury SP, Coats JR. 1989. Comparative toxicology of the pyrethroid insecticides. *Rev of Environ Contam and Toxicol* 108:133-177.
- *Braun HE, Frank R, Miller LA. 1985. Residues of cypermethrin in milk from cows wearing impregnated ear tags. *Bull Environ Contam Toxicol* 35:61-64.
- Briggs G. 1981. Adsorption of pesticides by some Australian soils. *Aust J Soil Res* 19:61-68.
- Brodie ME, Aldridge WN. 1982. Elevated cerebellar cyclic GMP levels during the deltamethrin-induced motor syndrome. *Neurobehav Toxicol Teratol* 4:109-113.
- Brown GB, Gaupp JE, Olsen RW. 1988. Pyrethroid insecticides: Stereospecific allosteric interaction with the batrachotoxinin—A benzoate binding site of mammalian voltage-sensitive sodium channels. *Mol Pharmacol* 34:54-59.
- *Budavari S, O'Neil MJ, Smith A, et al. 1996. *The Merck index: An encyclopedia of chemicals, drugs, and biologicals*. 12th ed. Whitehouse Station, NJ: Merck and Co., Inc.
- Butler WH, Cohen SH, Squire RA. 1997. Mesenchymal tumors of the mouse urinary bladder with vascular and smooth muscle differentiation. *Toxicol Pathol* 25(3):268-274.
- *Caballo C, Herrera A, Barrueco C, et al. 1992. Analysis of cytogenetic damage induces in CHO cells by the pyrethroid insecticide fenvalerate. *Teratog Carcinog Mutagen* 12:243-249.
- *Cabral JRP, Galendo D. 1990. Carcinogenicity study of the pesticide fenvalerate in mice. *Cancer Lett* 49:13-18.
- Cabral JRP, Galendo D, Laval M, et al. 1990. Carcinogenicity studies with deltamethrin in mice and rats. *Cancer Lett* 49:147-152.
- *Cagen SZ, Malley LA, Parker CM, et al. 1984. Pyrethroid-mediated skin sensory stimulation characterized by a new behavioral paradigm. *Toxicol Appl Pharmacol* 76:270-279.
- *Calore EE, Cavaliere MJ, Puga FR, et al. 2000. Histologic peripheral nerve changes in rats induced by deltamethrin. *Ecotoxicol Environ Saf* 47:82-86.
- Campana MA, Panzeri AM, Moreno VJ, et al. 1999. Genotoxic evaluation of the pyrethroid λ -cyhalothrin using the micronucleus test in erythrocytes of the fish *Cheirodon interruptus interruptus*. *Mutat Res* 438:155-161.
- *Cantalamesa F. 1993. Acute toxicity of two pyrethroids, permethrin, and cypermethrin in neonatal and adult rats. *Arch Toxicol* 67:510-513.
- *Caplan JA, Isensee AR, Nelson JO. 1984. Fate and effects of [¹⁴C]fenvalerate in a tidal marsh sediment ecosystem model. *J Agric Food Chem* 32:166-171.

9. REFERENCES

- *Carbonell E, Puig M, Xamena N, et al. 1989. Mitotic arrest induced by fenvalerate in human lymphocyte cultures. *Toxicol Lett* 48:45-48.
- Carlson GP, Schoenig GP. 1980. Induction of liver microsomal NADPH cytochrome *c* reductase and cytochrome *P*-450 by some new synthetic pyrethroids. *Toxicol Appl Pharmacol* 52:507-512.
- *Carlson JE, Villaveces JW. 1977. Hypersensitivity pneumonitis due to pyrethrum: Report of a case. *JAMA* 237(16):1718-1719.
- Carlton M. 1977. Some effects of cismethrin on the rabbit nervous system. *Pestic Sci* 8:700-712.
- Casida JE. 1980. Pyrethrum flowers and pyrethroid insecticides. *Environ Health Perspect* 34:189-202.
- Casida JE, Quistad GB. 1995. Metabolism and synergism of pyrethrins. In: Casida JE, Quistad GB, eds. *Pyrethrum flowers: Production, chemistry, toxicology, and uses*. New York: Oxford University Press, 258-276.
- Casida JE, Ruzo LO. 1980. Metabolic chemistry of pyrethroid insecticides. *Pestic Sci* 11:257-269.
- *Casida JE, Gammon DW, Glickman AH, et al. 1983. Mechanisms of selective action of pyrethroid insecticides. *Annu Rev Pharmacol Toxicol* 23:413-438.
- *Casida JE, Kimmel EC, Elliott M, et al. 1971. Oxidative metabolism of pyrethrins in mammals. *Nature* 230:326-327.
- Casida JE, Ueda K, Gaughan LC, et al. 1976. Structure-biodegradability relationships in pyrethroid insecticides. *Arch Environ Contam Toxicol* 3:491-500.
- Catinot R, Hoellinger H, Pfister A, et al. 1989a. Effects on rats of subacute intoxication with deltamethrin via an osmotic pump. *Drug Chem Toxicol* 12:173-196.
- Catinot R, Hoellinger H, Sonnier M, et al. 1989b. In vitro covalent binding of the pyrethroids cismethrin, cypermethrin and deltamethrin to rat liver homogenate and microsomes. *Arch Toxicol* 63:214-220.
- Catterall WA. 1992. Cellular and molecular biology of voltage-gated sodium channels. *Physiol Rev* 72(4):S15-S48.
- *Caux P-Y, Bastien C, Crowe A. 1996. Fate impact of pesticides applied to potato cultures: The Nicolet River Basin. *Ecotoxicol Environ Saf* 33:175-185.
- *Cecchine G, Golomb BA, Hilborne LH, et al. 2000. A review of the scientific literature as it pertains to Gulf War illnesses. *Rand Publication Database*. <http://www.rand.org/publications/MR/MR1018.8/MR1018.8.pdf/>. April 5, 2001.
- Chalmers AE, Miller TA, Olsen RW. 1987. Deltamethrin: A neurophysiological study of the sites of action. *Pestic Biochem Physiol* 27:36-41.
- Chambers J. 1980. An introduction to the metabolism of pyrethroids. *Residue Rev* 73:101-124.

9. REFERENCES

- Chang J-Y, Lin J-M. 1998. Aliphatic aldehydes and allethrin in mosquito-coil smoke. *Chemosphere* 36(3):617-624.
- Chanh PH, Navarro-Delmasure C, Chanh A, et al. 1980. Toxicity and cardiovascular effects of decamethrin on anaesthetized dogs. *IRCS J Med Sci* 8:388-389.
- Chanh P, Navarro-Delmasure C, Chanh APH, et al. 1981. Analgesic effects of decamethrin. *IRCS J Med Sci* 9:503-504.
- Chanh PH, Navarro-Delmasure C, Pham Huu Chanh A, et al. 1984. Toxicological studies of deltamethrin. *Int J Tissue React* 6(2):127-133.
- *Chapman RA, Cole CM. 1982. Observations on the influence of water and soil pH on the persistence of insecticides. *J Environ Sci Health B17(5):487-504*.
- *Chapman RA, Tu CM, Harris CR, et al. 1981. Persistence of five pyrethroid insecticides in sterile and natural, mineral and organic soil. *Bull Environ Contam Toxicol* 26:513-519.
- *Chatterjee KK, Talukder G, Sharma A. 1982. Effects of synthetic pyrethroids on mammalian chromosomes: I. Somicidin. *Mutat Res* 105:101-106.
- *Chauhan LKS, Agarwal DK, Sundararaman V. 1997. In vivo induction of sister chromatid exchange in mouse bone marrow following oral exposure to commercial formulations of alpha-cyano pyrethroids. *Toxicol Lett* 93:153-157.
- Chawla R. 1996. Acute oral toxicity studies with K-othrine (a synthetic pyrethroid insecticide) in Swiss albino mice. *Uttar Pradesh J Zool* 16(1):67-68.
- Chawla R. 1997. Laboratory evaluation of k-othrine, a synthetic pyrethroid against Swiss albino mice. *J Adv Zool* 18(1):51-53.
- Chen AW, Fink JM, Letinski DJ, et al. 1997. Residue of cypermethrin and its major acid metabolites in milk and tissues from dairy bovines treated with cypermethrin. *J Agric Food Chem* 45:4850-4855.
- *Chen H, Xiao J, Hu G, et al. 2002. Estrogenicity of organophosphorus and pyrethroid pesticides. *J Toxicol Environ Health A* 65:1419-1435.
- *Chen S, Zhang Z, He F, et al. 1991. An epidemiological study on occupational acute pyrethroid poisoning in cotton farmers. *Br J Ind Med* 48:77-81.
- *Chen Y-L, Casida JE. 1969. Photodecomposition of pyrethrin I, phthaltrin, and dimethrin: Modification in the acid moiety. *J Agric Food Chem* 17(2):208-215.
- *Chen Z-M, Wang Y-H. 1996. Chromatographic methods for the determination of pyrethrin and pyrethroid pesticide residues in crops, foods and environmental samples. *J Chromatogr* 754:367-395.
- *Chen ZM, Zabik MJ, Leavitt RA. 1984. Comparative study of thin film photodegradative rates for 36 pesticides. *Ind Eng Chem Prod Res Dev* 23:5-11.

9. REFERENCES

- *Chester G, Hatfield LD, Hart TB, et al. 1987. Worker exposure to, and absorption of, cypermethrin during aerial application of an "ultra low volume" formulation to cotton. *Arch Environ Contam Toxicol* 16:69-78.
- *Chester G, Sabapathy NN, Woollen BH. 1992. Exposure and health assessment during application of lambda-cyhalothrin for malaria vector control in Pakistan. *Bull WHO* 70(5):615-619.
- *Chruścielska K, Kalhorn D. 1999. Genotoxicity of pyrethroids: Part 2. Studies on mutagenic activity of commercial formulations in mouse micronucleus test. *Pestycydy* 4:47-50.
- *Chruścielska K, Kalhorn D, Sitowska B. 1999. Genotoxicity of pyrethroids: Part 1. Studies on mutagenic activity of pyrethroids formulations and their active ingredients in *Saccharomyces cerevisiae* assay. *Pestycydy* 4:39-45.
- Chugh Y, Sankaranarayanan A, Sharma PL. 1991. Effect of fenvalerate and endosulfan on behavioral despair and forced locomotor activity in albino mice. *Asia Pac J Pharmacol* 6:31-35.
- *Clark JM, Marion JR, Tessier DM, et al. 1991. Airborne drift residues collected near apple orchard environments due to application of insecticide mixtures. *Bull Environ Contam Toxicol* 46:829-836.
- *Clewell HJ III, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol Ind Health* 1:111-113.
- *Coats JR. 1990. Mechanisms of toxic action and structure-activity relationships for organochlorine and synthetic pyrethroid insecticides. *Environ Health Perspect* 87:255-262.
- Condés-Lara M, Graff G A, Vega-Riveroll L. 1999. Effects of cypermethrin on the electroencephalographic activity of the rat: A model of chemically induced seizures. *Neurobehav Toxicol Teratol* 21(3):293-298.
- Cordon C. 1986. Gas chromatographic determination of flucythrinate synthetic pyrethroid residues in a range of crops. *J Agric Food Chem* 34:953-955.
- *Cotham WE, Bidleman TF. 1989. Degradation of malathion, endosulfan, and fenvalerate in seawater and seawater/sediment microcosms. *J Agric Food Chem* 37:824-828.
- Cremer JE, Seville MP. 1985. Changes in regional cerebral blood flow and glucose metabolism associated with symptoms of pyrethroid toxicity. *Neurotoxicology* 6(3):1-12.
- *CRIS/USDA. 2001. CRIS Database. Current Research Information System. U.S. Department of Agriculture. April, 2001.
- *CRISP. 2001. CRISP Database. Computer Retrieval of Information on Scientific Projects.
- *CRISP. 2003. CRISP Database. Computer Retrieval of Information on Scientific Projects.
- Crofton KM, Reiter LW. 1984. Effects of two pyrethroid insecticides on motor activity and the acoustic startle response in the rat. *Toxicol Appl Pharmacol* 75:318-328.
- *Crofton KM, Reiter LW. 1988. The effects of Type I and II pyrethroids on motor activity and the acoustic startle response in the rat. *Fundam Appl Toxicol* 10:624-634.

9. REFERENCES

- *Crofton KM, Kehn LS, Gilbert ME. 1995. Vehicle and route dependent effects of a pyrethroid insecticide, deltamethrin, on motor function in the rat. *Neurotoxicol Teratol* 17(4):489-495.
- *Crofton KM, Reiter LW, Mailman RB. 1987. Pyrethroid insecticides and radio ligand displacement for the gaba receptor chloride ionophore complex. *Toxicol Lett* 35:183-190.
- *Crosby DG. 1995. Environmental fate of pyrethrins. In: Casida JE, Quistad GB, eds. *Pyrethrum flowers*. New York, NY: Oxford University Press, 194-213.
- *Crossland NO, Shires SW, Bennett D. 1982. Aquatic toxicology of cypermethrin. III. Fate and biological effects of spray drift deposits in fresh water adjacent to agricultural land. *Aquatic Toxicol* 2:253-270.
- Culliford SJ, Kozlowski RZ. 1999. Effects of pyrethroids on volume-sensitive chloride channels. *Br J Pharmacol* 126:28.
- Culver CA, Malina JJ, Talvert RL. 1988. Probable anaphylactoid reaction to a pyrethrin pediculocide shampoo. *Clin Pharm* 7:846-849.
- *Curry AM, Bennett IP. 1985. PP321: 4 Hour acute inhalation toxicity study in the rat of a 13% EC formulation. Imperial Chemical Industries PLC. OTS0538576.
- Dandliker WB, Hicks AN, Levison SA, et al. 1980. Effects of pesticides on the immune response. *Environ Sci Technol* 14(2):204-210.
- Danielson TJ, Golsteyn LR, Elder JL. 1996. Pharmacokinetics of fenvalerate after intravenous administration to sheep. *Pestic Sci* 46:145-150.
- Das AC, Mukherjee D. 1999. Influence of BHC and fenvalerate on mineralization and availability of some plant nutrients in soil. *Bull Environ Contam Toxicol* 62:371-376.
- *Davies JH. 1985. The pyrethroids: An historical introduction. In: Leahey JP, ed. *The pyrethroid insecticides*. Philadelphia, PA: Taylor & Francis, 1-41.
- Davies MG, Kersey PJ. 1986. Contact allergy to yarrow and dandelion. *Contact Dermatitis* 14:256-257.
- Day KE. 1991. Effects of dissolved organic carbon on accumulation and acute toxicity of fenvalerate, deltamethrin and cyhalothrin to *Daphnia magna* (Straus). *Environ Toxicol Chem* 10:91-101.
- Dayal M, Parmar D, Dhawan A, et al. 1999. Induction of rat brain and liver cytochrome P450 1A1/1A2 and 2B1/2B2 isoenzymes by deltamethrin. *Environ Toxicol Pharmacol* 7:169-178.
- de Boer F, van der Gugten J, Slangen JL, et al. 1988. Changes in plasma corticosterone and catecholamine contents induced by low doses of deltamethrin in rats. *Toxicology* 49:263-270.
- De Cheke ME. 1989. Chemical analysis of water and wastewater inorganics. *J Water Pollut Control Fed* 61(6):727-755.
- Dejonckheere W, Steurbaut W, Drieghe S, et al. 1996a. Monitoring of pesticide residues in fresh vegetables, fruits, and other selected food items in Belgium. *J Assoc Off Anal Chem Int* 79(1):97-110.

9. REFERENCES

- Dejonckheere W, Steurbaut W, Drieghe S, et al. 1996b. Pesticide residue concentrations in the Belgian total diet, 1991-1993. *J Assoc Off Anal Chem Int* 79(2):520-528.
- *Demian SR. 1998. Immunological alteration in mice exposed to deltamethrin insecticide: II. Defective humoral immune reactivity. *J Med Res Inst* 19(2):154-164.
- *Demian SR, El-Sayed MH. 1993. Immunological alterations in mice exposed to deltamethrin insecticide I. Impairment of IL-1 & IL-2 production. *J Med Res Inst* 19(2):154-164.
- Demoute JP. 1989. A brief review of the environmental fate and metabolism of pyrethroids. *Pestic Sci* 27:375-385.
- Deshmukh PB. 1992. Three-generation reproductive studies of a synthetic pyrethroid - cyhalothrin. *Toxicol Lett* 64/65:779-781.
- Deshmukh PB, Patel SV, Banerjee RS. 1993. Effect of cyhalothrin on reproductive parameters in mice. *Proc Acad Environ Biol* 2(1):99-104.
- *Dési I, Dobronyi I, Varga L. 1986. Immuno-, neuro-, and general toxicologic animal studies on a synthetic pyrethroid: Cypermethrin. *Ecotoxicol Environ Saf* 12:220-232.
- Devaud LL, Szot P, Murray TF. 1986. PK 1195 antagonism of pyrethroid-induced proconvulsant activity. *Eur J Pharmacol* 120:269-273.
- *Dianovský J, Šiviková K. 1997. Cytogenetic effect of supermethrin in pig and cattle peripheral lymphocytes. *Acta Vet Brno* 66:33-38.
- Diel F, Detscher M, Borck H, et al. 1998a. Effects of permethrin on human basophils and lymphocytes in vitro. *Inflamm Res* 47:S11-S12.
- Diel F, Detscher M, Schock B, et al. 1998b. *In vitro* effects of the pyrethroid S-bioallethrin on lymphocytes and basophils from atopic and nonatopic subjects. *Allergy* 53:1052-1059.
- Diel F, Horr B, Borck H, et al. 1999. Pyrethroids and piperonyl-butoxide affect human T-lymphocytes in vitro. *Toxicol Lett* 107:65-74.
- *DOD. 1977. Toxicological evaluation of 3-(phenoxyphenyl) methyl (+ or -)-cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethyl cyclopropanecarboxylate (permethrin), December 1975-April 1977. Department of the Army, Department of Defense. ADA047284.
- *DOD. 2001. Environmental exposure report. U.S. Department of Defense. http://www.gulflink.osd.mil/pesto/pest_s04.htm. April 9, 2001.
- Dogheim SM, Alla SAG, El-Marsafy AM. 1999. Monitoring pesticide residues in Egyptian fruits and vegetables in 1995. *J Assoc Off Anal Chem Int* 82(4):948-954.
- *Dolara P, Salvadori M, Capobianco T, et al. 1992. Sister-chromatid exchanges in human lymphocytes induced by dimethoate, omethoate, deltamethrin, benomyl and their mixture. *Mutat Res* 283:113-118.

9. REFERENCES

- *Dorman DC, Beasley VR. 1991. Neurotoxicology of pyrethrin and the pyrethroid insecticides. *Vet Hum Toxicol* 33(3):238-243.
- Dorman DC, Buck WB, Trammel HL, et al. 1990. Fenvalerate/N,N-diethyl-m-toluamide (DEET) toxicosis in two cats. *J Am Vet Med Assoc* 196(1):100-102.
- *DOT. 2001. Hazardous materials table, special provisions, hazardous materials communications, emergency response information, and training requirements. Department of Transportation. Code of Federal Regulations. 49 CFR 172. Appendix A. <http://www.dot.gov/>. April 19, 2001.
- Dowling RH, Mack E, Small DM, et al. 1970. Effects of controlled interruption of the enterohepatic circulation of bile salts by biliary diversion and by ileal resection on bile salt secretion, synthesis, and pool size in the Rhesus monkey. *J Clin Invest* 49:232-342.
- *Dureja P. 1990. Photodecomposition of pyrethroid insecticide fenpropathrin. *Pesticides* 1989:31-33.
- *Dureja P, Casida JE, Ruzo LO. 1984. Dinitroanilines as photostabilizers for pyrethroids. *J Agric Food Chem* 32:246-250.
- Dyck PJ, Shimono M, Schoening GP, et al. 1984. The evaluation of a new synthetic pyrethroid pesticide (permethrin) for neurotoxicity. *J Environ Pathol Toxicol Oncol* 5:109-117.
- *Eadsforth CV, Baldwin MK. 1983. Human dose-excretion studies with the pyrethroid insecticide, cypermethrin. *Xenobiotica* 13(2):67-72.
- *Eadsforth CV, Bragt PC, van Sittert NJ. 1988. Human dose-excretion studies with pyrethroid insecticides cypermethrin and alphacypermethrin: Relevance for biological monitoring. *Xenobiotica* 18(5):603-614.
- Eells JT, Bandettini PA, Holman PA, et al. 1992. Pyrethroid insecticide-induced alterations in mammalian synaptic membrane potential. *J Pharmacol Exp Ther* 262(3):1173-1181.
- Eells JT, Rasmussen JL, Bandettini PA, et al. 1993. Differences in the neuroexcitatory actions of pyrethroid insecticides and sodium channel-specific neurotoxins in rat and trout brain synaptosomes. *Toxicol Appl Pharmacol* 123:107-119.
- *Eil C, Nisula BC. 1990. The binding properties of pyrethroids to human skin fibroblast androgen receptors and to sex hormone binding globulin. *J Steroid Biochem* 3(3-4):409-414.
- *Eitzer BD. 1991. Cycling of indoor air concentrations of *d-trans-allethrin* following repeated pesticide applications. *Bull Environ Contam Toxicol* 47:406-412.
- Eke KR. 1996. Pesticides in the aquatic environment in England and Wales. *Pestic Outlook* April:15-21.
- El-Ashmawy IM, Zakaria AD, Hemed SA, et al. 1993. Cytotoxic effects of the pyrethroid insecticide (Matox) with reference to its influence on the reproductive hormone. *Vet Med J Giza* 41(3):125-130.
- Elbetieha A, Da'as SI, Khamas W, et al. 2001. Evaluation of the toxic potentials of cypermethrin pesticide on some reproductive and fertility parameters in the male rats. *Arch Environ Contam Toxicol* 41:522-528.

9. REFERENCES

- *El-Elaimy I. 1986. Biochemical disturbance in liver function and whole blood AChE due to repeated dermal application of baythroid to rat. *Proc Zool Soc AR Egypt* 10:51-60.
- *El-Gohary M, Awara WM, Nassar S, et al. 1999. Deltamethrin-induced testicular apoptosis in rats: The protective effect of nitric oxide synthase inhibitor. *Toxicology* 132:1-8.
- El-Khatib EN. 2001. Assessment of the mutagenic activity of alpha-cypermethrin: Detection of p53 mutation using SSCP analysis of polymerase chain reaction. *Mutat Res* 483:S73.
- El-Khatib EN, Rokaya HA. 2001. Genotoxic effects of two pesticides and their mixtures: In vivo chromosomal aberrations and micronucleus assay in rat bone-marrow cells. [Abstract]. *Toxicol Lett* 123:123.
- *Ellenhorn MJ, Schonwald S, Ordog G, et al. 1997. *Medical toxicology: Diagnosis and treatment of human poisoning*. 2nd ed. Baltimore: Williams & Wilkins.
- Elliott M, Janes NF, Kimmel EC, et al. 1972. Metabolic fate of pyrethrin I, pyrethrin II, and allethrin administered orally to rats. *J Agric Food Chem* 20(2):300-313.
- *Elliott M, Janes NF, Pulman DA, et al. 1976. Radiosynthesis and metabolism in rats of the *R* isomers of the insecticide permethrin. *J Agric Food Chem* 24(2):270-276.
- El-Meligy S, El-Ashwah N, Gaffar N, et al. 1993. Effect of fenvalerate on liver, brain, and kidney sodium-potassium adenosine triphosphatase activity and serum electrolytes in rats. *Egypt J Biochem* 11(1):47-55.
- El-Salkh BA. 1996. Ultrastructural changes of the liver of rat after polytrin treatment. *al-Azhar Bull Sci* 7(1):939-946.
- El-Sebae AH, Salem MH, El-Assar MRS, et al. 1988. *In vitro* effect of profenofos, fenvalerate and dimilin on protein and RNA biosynthesis by rabbit liver and muscle tissues. *J Environ Sci Health B23(5):439-451*.
- El-Sewedy SM, Mostafa MH, El-Bassiouni EA, et al. 1982a. Effect of fenvalerate on kynurenine metabolizing enzymes and acid ribonuclease of mouse liver. *J Environ Sci Health B* 17:571-579.
- El-Sewedy SM, Zahran MA, Seidan MA, et al. 1982b. Effect and mechanism of action of methomyl and cypermethrin insecticides on kynurenine metabolizing enzymes of mouse liver. *J Environ Sci Health B17(5):527-539*.
- *El-Shahawi FI. 1996. *In vivo* toxicological studies of the effect of pyrethroid insectide permethrin on female Wistar rats. *Alex J Pharm Sci* 10(1):71-76.
- El-Tawil OS, Abdel-Rahman MS. 1997. Effect of cypermethrin on isolated male and female rat hepatocytes. *J Toxicol Environ Health* 52:461-474.
- El-Tawil OS, Abdel-Rahman MS. 2001. The role of enzyme induction and inhibition on cypermethrin hepatotoxicity. *Pharmacol Res* 44(1):33-40.

9. REFERENCES

- El-Toukhy MA, Girgis RS. 1993. In vivo and in vitro studies on the effect of larvin and cypermethrin on adenosine triphosphatase activity of male rats. *J Environ Sci Health B* 28(5):599-619.
- El-Toukhy MA, Ebiad SA, Hassan AA, et al. 1989. In vivo studies on the effect of some insecticides on the hepatic activities of L-tryptophan 2,3-dioxygenase and pyridoxal phosphokinase of male mice. *J Environ Sci Health B* 24(3):265-276.
- *EMMI. 1997. EMMI Database. Environmental Monitoring Methods Index. U.S. Environmental Protection Agency.
- Enan E, Matsumura F. 1993. Activation of phosphoinositide/protein kinase C pathway in rat brain tissue by pyrethroids. *Biochem Pharmacol* 45(3):703-710.
- Enan E, Pinkerton KE, Peake J, et al. 1996. Deltamethrin-induced thymus atrophy in male Balb/c mice. *Biochem Pharmacol* 51(4):447-454.
- *EPA. 1981. Data evaluation record: Cyhalothrin oral toxicity study in beagle dogs (repeated daily dosing for 26 weeks). U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1983. Memorandum: Review of a 1 year dosing study with the synthetic pyrethroid permethrin. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox Review 003403.
- *EPA. 1985a. Data evaluation record: Cyhalothrin: 28-day feeding study in the rat. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1985b. Data evaluation record: Cyhalothrin: 90-day feeding study in rats. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1985c. Data evaluation record: Cyhalothrin: Chronic toxicity study in rats. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1985d. Data evaluation record: Cyhalothrin: Chronic toxicity and oncogenicity feeding study in mice. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1986a. Data evaluation record: Cyhalothrin: Teratogenicity study in rats. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1986b. Data evaluation record: Cyhalothrin: Three-generation reproduction study in rats. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 005100 (excerpt).
- *EPA. 1987. Memorandum: Esfenvalerate: ASANA (pydrin)- Submission of the range-finding study used to determine dosages for the 1-year dog study. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox review 006524.
- *EPA. 1988a. Recommendations for and documentation of biological values for use in risk assessment. Cincinnati, OH: U.S. Environmental Protection Agency. PB88-179874.
- *EPA. 1988b. Reference physiological parameters in pharmacokinetic modeling. Washington, DC: U.S. Environmental Protection Agency. PB88-196019.

9. REFERENCES

- *EPA. 1988c. Memorandum: Pyrethrins: Submission of rat and rabbit teratology range finding studies in response to a prior request from Toxicology Branch. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox review 006824.
- *EPA. 1990. Interim methods for development of inhalation reference concentrations. Washington, DC: U.S. Environmental Protection Agency. Office of Health and Environmental Assessment, Office of Research and Development. Environmental Criteria and Assessment Office. EPA 600/8-90/066A.
- *EPA. 1991a. Data evaluation record: Esfenvalerate: Subchronic oral toxicity (90-day) mouse. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 008967 (excerpt).
- *EPA. 1991b. Memorandum: Permethrin: Review of rat and rabbit development toxicity studies (83-3) submitted in response to FIFRA 88 toxicity data requirements. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox review 008344.
- *EPA. 1992a. Another look: National survey of pesticides in drinking water wells: Phase II report. Office of Water. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances, EPA 579/09-91-020.
- *EPA. 1992b. Data evaluation record: Esfenvalerate: Comparative mammalian neurotoxicity- Rat 81-8ss 1 dose- 2 weeks. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review 00981 (excerpt).
- *EPA. 1992c. Data evaluation report: Cypermethrin: Multi generation reproduction study-rats. U.S. Environmental Protection Agency. Office of Pesticide Programs. Tox review (excerpt) 009347.
- *EPA. 1994a. Memorandum: Resmethrin: Evaluation of 2-generation reproduction study in rat and reevaluation of the following previously submitted studies: 3-generation reproduction study in rat, six month dog, rat. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox review 011329.
- *EPA. 1994b. Memorandum: Permethrin: Review of series 81-8ss and 82-7ss acute and subchronic neurotoxicity screen studies and a literature publication on the neurotoxicity and commentary on a special positive control study with acrylamide. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances.
- *EPA. 1994c. Memorandum. Pyrethrum extract: Review of rat chronic feeding/carcinogenicity study (IRDC 1990) and mouse carcinogenicity study (IRDC 1990). U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox Review 01079.
- *EPA. 1994d. Memorandum: Resmethrin: Evaluation of new mouse dietary carcinogenicity study and reevaluation of previously submitted mouse carcinogenicity study on resmethrin (SBP 1:52). U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox review 011067.
- *EPA. 1995. Emergency planning and community Right-to-know Act. U.S. Environmental Protection Agency. <http://www.epa.gov/region5/debs/html/epcra.htm>. April 19, 1995.
- *EPA. 1996. Memorandum: Cypermethrin: Review of a series 82-4 subchronic inhalation toxicity study in rats and a series 83-3 developmental toxicity study in rabbits. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox review 012056.

9. REFERENCES

- *EPA. 1999. Memorandum: Pyrethrins: Report of the cancer assessment review committee. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Tox Review 013354.
- *EPA. 2000a. Restricted use products (RUP) report: October 2000. U.S. Environmental Protection Agency. Office of Pesticide Programs. <http://www.epa.gov/RestProd/rupoct00.htm>. April 2, 2001.
- *EPA. 2000b. Synthetic pyrethroids for mosquito control. U.S. Environmental Protection Agency. 735-F-00-004. May 2000.
- *EPA. 2000c. NCOD query results: New CCL ambient occurrence data. U.S. Environmental Protection Agency. National Drinking Water Contaminant Occurrence Database. http://oaspub.epa.gov/ncod/rpt_new_ccl_ambient_pkg.run_report. April 26, 2001.
- *EPA. 2001a. Designation of hazardous substances. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 116.4. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.h>. April 26, 2001.
- *EPA. 2001b. Designation of hazardous substances. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 302.4. <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>. April 26, 2001.
- *EPA. 2001c. Determination of reportable quantities for hazardous substances. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 117.3. <http://www.epa.gov/docs/epacfr40/chapt-I.info/subc>. April 26, 2001.
- *EPA. 2001d. NPDES Permit application testing requirements. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 122, Appendix D. <http://www.epa.gov/epahome/cfr40.htm>. April 19, 2001.
- *EPA. 2001e. Toxic chemical release reporting: Community right-to-know. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 372.65. <http://www.epa.gov/epacfr40/chapt-I.infor/chi-toc>. April 26, 2001.
- *EPA. 2001f. Pesticide programs. Tolerances and exemptions from tolerances for pesticide chemicals in food. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR Part 180. http://access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr180_main_00.html. April 19, 2001.
- *EPA. 2003. Lists of other (inert) pesticide ingredients. U.S. Environmental Protection Agency. Office of Pesticide Programs. <http://www.epa.gov/opprd001/inerts/lists.html>. March 27, 2003.
- Eriksson P. 1991. DDT and pyrethroids-ecotoxicological considerations. *Comp Biochem Physiol* 100C(1-2):269-270.
- Eriksson P. 1992. Neuroreceptor and behavioral effects of DDT and pyrethroids in immature and adult mammals. In: Isaacson RL, Jensen KF, eds. *The vulnerable brain and environmental risks*. New York, NY: Plenum Press, 235-251.
- *Eriksson P, Fredriksson A. 1991. Neurotoxic effects of two different pyrethroids, bioallethrin and deltamethrin, on immature and adult mice: Changes in behavioral and muscarinic receptor variables. *Toxicol Appl Pharmacol* 108:78-85.

9. REFERENCES

- *Eriksson P, Nordberg A. 1990. Effects of two pyrethroids, bioallethrin and deltamethrin, on subpopulations of muscarinic and nicotinic receptors in the neonatal mouse brain. *Toxicol Appl Pharmacol* 102:452-463.
- Eriksson P, Talts U. 2000. Neonatal exposure to neurotoxic pesticides increases adult susceptibility: A review of current findings. *Neurotoxicology* 21:37-48.
- Eriksson P, Ankarberg E, Viberg H, et al. 2001. Neonatal exposure to toxicants: Defined critical period: Altered adult susceptibility. *Neurotoxicology* 22(4):510.
- *Eriksson P, Fredriksson A, Nordberg A. 1991. Neonatal exposure to pyrethroids and nicotine - influence on the development of cholinergic receptor subtypes and behavior in young and adult mice. *Neurotoxicology* 12(1):133-134.
- *Erstfeld KM. 1999. Environmental fate of synthetic pyrethroids during spray drift and field runoff treatments in aquatic microcosms. *Chemosphere* 39(10):1737-1769.
- Essawy GS, El-Banna HA, Sobihy HM, et al. 1994. Influence of lambda (synthetic pyrethroids) on fertility and blood parameters in male rats. *Vet Med J Giza* 42(1):71-75.
- FDA. 1989. Residues in foods—1988. *J Assoc Off Anal Chem* 72(5):133A-152A.
- FDA. 1990. Residues in foods: Monitoring programs. *J Assoc Off Anal Chem* 73(5):127A-146A.
- FDA. 1991. Residues in foods. *J Assoc Off Anal Chem* 74(5):121A-141A.
- *FDA. 2000a. Piperonyl butoxide and pyrethrins as components of bags. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 178.3730. <http://www.access.gpo.gov/>. September 6, 2000.
- *FDA. 2000b. Squalane, pyrethrins and piperonyl butoxide. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 524.2140. <http://www.access.gpo.gov/>. September 6, 2000.
- *FDA. 2000c. Food and Drug Administration: Total diet study. Summary of residues found ordered by food market baskets 91-3-99-1. U.S. Food and Drug Administration. September 6, 2000.
- *FDA. 2001. Food and Drug Administration pesticide program: Residue monitoring. U.S. Food and Drug Administration. <http://vm.cfsan.fda.gov/~acrobat/pes99rep.pdf>. April 16, 2001.
- *FEDRIP. 2001. Federal Research in Progress. April 2001.
- *FEDRIP. 2003. Federal Research in Progress. April 2003.
- Fernandez MC, Martinez-Larrañaga MR, Fernandez-Cruz ML, et al. 1997. Neurotoxicological effects and brain disposition of deltamethrin in rats. *Methods Find Exp Clin Pharmacol* 19(Suppl. A):113.
- Ferone MR, Amorena M, De Liguoro M, et al. 1994. Toxicokinetics of fenvalerate in rat. *Acta Toxicol Ther* 15(4):221-227.
- *Flannigan SA, Tucker SB. 1985. Variation in cutaneous sensation between synthetic pyrethroid insecticides. *Contact Dermatitis* 13:140-147.

9. REFERENCES

Flannigan SA, Tucker SB, Key MM, et al. 1985a. Primary irritant contact dermatitis from synthetic pyrethroid insecticide exposure. *Arch Toxicol* 56:288-294.

*Flannigan SA, Tucker SB, Key MM, et al. 1985b. Synthetic pyrethroid insecticides: A dermatological evaluation. *Br J Ind Med* 42:363-372.

Flodström S, Wärngård L, Ljungquist S, et al. 1988. Inhibition of metabolic cooperation in vitro and enhancement of enzyme altered foci incidence in rat liver by the pyrethroid insecticide fenvalerate. *Arch Toxicol* 61:218-223.

*Flucke W, Schilde B. 1980. FCR 1272. Subacute oral toxicity study on rats. Institut für Toxikologie. Report No. 9039.

*Flucke W, Thyssen J. 1980. Acute toxicity studies. Institut für Toxikologie. OTS0543768.

*Fomon SJ. 1966. Body composition of the infant: Part I: The male "reference infant". In: Falkner F, ed. *Human development*. Philadelphia, PA: WB Saunders, 239-246.

*Fomon SJ, Haschke F, Ziegler EE, et al. 1982. Body composition of reference children from birth to age 10 years. *Am J Clin Nutr* 35:1169-1175.

Forshaw PJ, Bradbury JE. 1983. Pharmacological effects of pyrethroids on the cardiovascular system of the rat. *Eur J Pharmacol* 91:207-213.

Forshaw PJ, Ray DE. 1986. The effects of two pyrethroids, cismethrin and deltamethrin, on skeletal muscle and the trigeminal reflex system in the rat. *Pestic Biochem Physiol* 25:143-151.

Forshaw PJ, Ray DE. 1990. A novel action of deltamethrin on membrane resistance in mammalian skeletal muscle and non-myelinated nerve fibers. *Neuropharmacology* 29(1):75-82.

Forshaw PJ, Ray DE. 1993. Deltamethrin, but not cismethrin, inhibits a neuronal voltage-dependent chloride channel. *Neurotoxicology* 14(4):555.

*Forshaw PJ, Ray DE. 1997. Development of therapy for Type II pyrethroid insecticide poisoning. *Hum Exp Toxicol* 16:382.

*Forshaw PJ, Lister T, Ray DE. 2000. The role of voltage-gated chloride channels in Type II pyrethroid insecticide poisoning. *Toxicol Appl Pharmacol* 163:1-8.

Foulhoux P, Cotonat J, Leclerc M, et al. 1984. Treatment of deltamethrin acute intoxications. *Neurotoxicology* 5(4):77.

Frank R, Braun HE, Clegg BS, et al. 1990. Survey of farm wells for pesticides, Ontario, Canada, 1986-1987. *Bull Environ Contam Toxicol* 44:410-419.

Frank R, Braun HE, Miller LA, et al. 1984. Fenvalerate residues in milk following topical treatment to dairy cows. *Pestic Sci* 15:600-604.

Frank R, Braun HE, Ripley BD. 1987a. Residues of insecticides, fungicides, and herbicides on Ontario-grown vegetables, 1980-1985. *J Assoc Off Anal Chem* 70(6):1081-1086.

9. REFERENCES

- *Frank R, Johnson K, Braun HE, et al. 1991. Monitoring air, soil, stream and fish for aerial drift of permethrin. *Environ Monit Assess* 16:127-150.
- Frank R, Ripley BD, Braun HE, et al. 1987b. Survey of farm wells for pesticides residues, Southern Ontario, Canada, 1981-1982, 1984. *Arch Environ Contam Toxicol* 16:1-8.
- *Franz TJ, Lehman PA, Franz SF, et al. 1996. Comparative percutaneous absorption of lindane and permethrin. *Arch Dermatol* 132:901-905.
- *Freitag D, Ballhorn L, Geyer H, et al. 1985. Environmental hazard profile of organic chemicals. *Chemosphere* 14(10):1589-1616.
- Frenkel REP, Hong YJ, Shin DH. 1988. Misuse of eye drops due to interchanged caps. *Arch Ophthalmol* 106:16-17.
- Fuortes L. 1999. Urticaria due to airborne permethrin exposure. *Vet Hum Toxicol* 41:92-93.
- Gabbianelli R, Falcioni G, Nasuit C, et al. 2002. Cypermethrin-induced plasma membrane perturbation on erythrocytes from rats: reduction of fluidity in the hydrophobic core and in glutathione peroxidase activity. *Toxicology* 175(1-3):91-101.
- Galceran MT, Santos FJ, Caixach J, et al. 1993. PCBs and chlorinated pesticides in shellfish of a deltaic environment. *Chemosphere* 27(7):1183-1200.
- *Gandhi G, Chowdhury JB, Sareen PK, et al. 1995. Genotoxic effects of deltamethrin in the mouse bone marrow micronucleus assay. *Mutat Res* 346:203-206.
- *Garey J, Wolff MS. 1998. Estrogenic and antiprogestagenic activities of pyrethroid insecticides. *Biochem Biophys Res Commun* 251:855-859.
- Garg SK, Shah MA, Garg KM, et al. 1997. Biochemical and physiological alterations following short term exposure to fluvalinate—a synthetic pyrethroid. *Indian J Pharmacol* 29:250-254.
- *Gaughan LC, Ackerman ME, Unai T, et al. 1978. Distribution and metabolism of *trans*- and *cis*-permethrin in lactating Jersey cows. *J Agric Food Chem* 26(3):813-818.
- *Gaughan LC, Unai T, Casida JE. 1977. Permethrin metabolism in rats. *J Agric Food Chem* 25(1):9-17.
- *Geetha KY, Devi KR. 1992. Evaluation of cypermethrin for mutagenicity in somatic and germ cells of mice. *Trends Life Sci* 7(2):99-104.
- George DA. 1985. Chemical contaminants monitoring. *J Assoc Off Anal Chem* 68(6):1160-1163.
- *Ghiasuddin SM, Soderlund DM. 1984. Hydrolysis of pyrethroid insecticides by soluble mouse brain esterases. *Toxicol Appl Pharmacol* 74:390-396.
- *Ghosh AK, Sharma A, Talukder G. 1992. Cytotoxic effects of Sumicidin, a Type II synthetic pyrethroid, on mice *in vivo* at 6, 12 and 24 h after exposure. *Cytobios* 71:85-91.

9. REFERENCES

- Ghosh TK. 1990. Biochemical changes induced by the insecticide fenvalerate in the male gonads of albino rat. *Environ Ecol* 8(1):63-67.
- *Gianessi LP, Silvers CS. 2000. Trends in crop pesticide use: Comparing 1992 and 1997. Washington, DC: National Center for Food and Agricultural Policy.
- Gilbert ME, Mack CM, Crofton KM. 1989. Pyrethroids and enhanced inhibition in the hippocampus of the rat. *Brain Res* 477:314-321.
- Giri S, Sharma GD, Giri A, et al. 2002. Fenvalerate-induced chromosome aberrations and sister chromatid exchanges in the bone marrow cells of mice in vivo. *Mutat Res* 520:125-132.
- *Giwerzman A, Carlsen E, Keiding N, et al. 1993. Evidence for increasing incidence of abnormalities of the human testis: A review. *Environ Health Perspect Suppl* 101(2):65-71.
- Glickman AH, Casida JE. 1982. Species and structural variations affecting pyrethroid neurotoxicity. *Neurobehav Toxicol Teratol* 4:793-799.
- Glowa JR. 1986. Acute and sub-acute effects of deltamethrin and chlordimeform on schedule-controlled responding in the mouse. *Neurobehav Toxicol Teratol* 8:97-102.
- *Go V, Garey J, Wolff MS, et al. 1999. Estrogenic potential of certain pyrethroid compounds in the MCF-7 human breast carcinoma cell line. *Environ Health Perspect* 107(3):173-177.
- *Goldfrank LR, Flomenbaum NE, Lewin NA, et al. 1998. Goldfrank's toxicologic emergencies. 6th ed. Stamford, CT: Appleton & Lange.
- Gombe S, Ogada TA. 1988. Health of men on long term exposure to pyrethrins. *E Afr Med J* 65(11):734-742.
- *Gomes M, Bernardi MM, Spinosa H. 1991a. Effects of prenatal pyrethroid insecticide exposure on the sexual development of rats. *Vet Hum Toxicol* 33(5):427-428.
- Gomes M, Bernardi MM, Spinosa H. 1991b. Pyrethroid insecticides and pregnancy: Effect on physical and behavioral development of rats. *Vet Hum Toxicol* 33(4):315-317.
- Goswami N, Chatterjee SK. 1993. Effect of cypermethrin on hematological variables of albino mice. *Environ Ecol* 11(3):653-655.
- *Gotoh Y, Kawakami M, Matsumoto N, et al. 1998. Permethrin emulsion ingestion: Clinical manifestations and clearance of isomers. *Clin Toxicol* 36(1&2):57-61.
- *Graillet C, Hoellinger H. 1982. Binding of two pyrethroid isomers, cismethrin and bioresmethrin, to liver proteins. *Toxicol Appl Pharmacol* 66(313-318):313-318.
- *Grant SMB. 1993. An unusual cause of burning mouth sensation. *Br Dent J* 175:378-380.
- *Gray AJ, Connors TA. 1980. Delayed toxicity after intravenous administration of bioresmethrin to rats. *Pestic Sci* 11:361-366.

9. REFERENCES

- *Gray AJ, Rickard J. 1982. The toxicokinetics of deltamethrin in rats after intravenous administration of a toxic dose. *Pestic Biochem Physiol* 18:205-215.
- *Gray AJ, Soderlund DM. 1985. Mammalian toxicology of pyrethroids. In: Hutson DH, Roberts TR, eds. *Insecticides. Vol 5: Progress in pesticide biochemistry and toxicology*. New York, NY: John Wiley and Sons Ltd., 193-248.
- *Gray AJ, Connors TA, Hoellinger H, et al. 1980a. The relationship between the pharmacokinetics of intravenous cismethrin and bioresmethrin and their mammalian toxicity. *Pestic Biochem Physiol* 13:281-293.
- Gray A, Connors TA, Rickard J. 1980b. Mechanism of mammalian toxicity of the pyrethroids. In: Littauer UZ, Silman DI, Teichberg VI, et al., eds. *Neurotransmitters and their receptors*. New York, NY: John Wiley and Sons Ltd, 565-568.
- Grindem CB, Corbett WT, Tomkins MT. 1990. Risk factors for *Haemobartonella felis* infection in cats. *J Am Vet Med Assoc* 196(1):96-102.
- Grosse G, Thiele T, Heuckendorf E, et al. 2002. Deltamethrin differentially affects neuronal subtypes in hippocampal primary culture. *Neuroscience* 112(1):233-241.
- *Gunderson EL. 1988. FDA total diet study, April 1982-1984, dietary intakes of pesticides, selected elements, and other chemicals. *J Assoc Off Anal Chem* 71:1200-1209.
- *Gunderson EL. 1995a. Dietary intakes of pesticides, selected elements, and other chemicals: FDA total diet study, June 1984–April 1986. *J Assoc Off Anal Chem Int* 78(4):910-921.
- *Gunderson EL. 1995b. FDA Total diet study, July 1986-April 1991, Dietary intakes of pesticides, selected elements, and other chemicals. *J Assoc Off Anal Chem Int* 78(6):1353-1363.
- Gupta A, Agarwal R, Shukla GS. 1999a. Functional impairment of blood-brain barrier following pesticide exposure during early development in rats. *Hum Exp Toxicol* 18:174-179.
- Gupta MK, Jha GJ, Singh KK. 1999b. Effects of chronic cypermethrin toxicity on thyroid function in goats. *Indian Vet J* 76:340-341.
- *Gupta PK. 1990. Teratogenic effects of cypermethrin in rats. *J Environ Biol* 11(2):121-126.
- Gupta PK, Kumar S. 1991. Cumulative toxicity of deltamethrin in mice. *J Environ Biol* 12(1):45-50.
- *Gupta RK, Mehr ZA, Korte DW, et al. 1990. Mutagenic potential of permethrin in the *Drosophila melanogaster* (diptera: drosophilidae) sex-linked recessive lethal test. *J Econ Entomol* 83(3):721-724.
- *Guzelian PS, Henry CJ, Olin SS, eds. 1992. *Similarities and differences between children and adults: Implications for risk assessment*. Washington, DC: International Life Sciences Institute Press.
- Habazin-Novak V, Pleština R. 1984. The effect of deltamethrin on induction of hepatic microsomal cytochrome P-450 in rats. *Period Biol* 86(4):315-316.

9. REFERENCES

- Habazin-Novak V, Fajdetic T, Kramaric M. 1985. Effects of technical malathion and deltamethrin on hepatic microsomal cytochrome P-450 and antipyrine half-life in rats. *Iugosl Physiol Pharmacol Acta* 21(2):149-153.
- *Haddad LM, Shannon MW, Winchester JR. 1998. *Clinical management of poisoning and drug overdose*. 3rd ed. Philadelphia, PA: W.B. Saunders Company.
- Hadnagy W, Seemayer NH, Kuhn K-H, et al. 1999. Induction of mitotic cell division disturbances and mitotic arrest by pyrethroids in V79 cell cultures. *Toxicol Lett* 107:81-87.
- Haggas RL, Rees L, Thompson HM, et al. 1991. Sexual dimorphism in trans-cypermethrin hydrolysis in the domestic chicken. *Biochem Soc Trans* 19:303S.
- Hagiwara A, Yamada M, Hasegawa R, et al. 1990. Lack of enhancing effects of fenvalerate and esfenvalerate on induction of preneoplastic glutathione *S*-transferase placental form positive liver cell foci in rats. *Cancer Lett* 54:67-73.
- *Haitzer M, Höss S, Traunspurger W, et al. 1998. Effects of dissolved organic matter (DOM) on the bioconcentration of organic chemicals in aquatic organisms—A review. *Chemosphere* 37(7):1335-1362.
- *Haley RW, Kurt TL. 1997. Self-reported exposure to neurotoxic chemical combinations in the Gulf War: A cross-sectional epidemiologic study. *JAMA* 277:231-237.
- *Haley RW, Hom J, Roland PS, et al. 1997a. Evaluation of neurologic function in Gulf War veterans: A blinded case-control study. *JAMA* 277(3):223-230.
- *Haley RW, Kurt TL, Hom J. 1997b. Is there a Gulf War syndrome? Searching for syndromes by factor analysis of symptoms. *JAMA* 277(3):215-222.
- Hall LW, Alden RW. 1997. A review of concurrent ambient water column and sediment toxicity testing in the Chesapeake Bay watershed: 1990-1994. *Environ Toxicol Chem* 16(8):1606-1617.
- Hasan NRA, El-Mahdy MM, Hamouda MA, et al. 1994. Pathological studies on the effect of pyrethroids aerosol on albino rats. *Vet Med J Giza* 42(1):23-29.
- *Hassan AB, Soliman GA, Farag AA, et al. 1993. Effect of the synthetic pyrethroids Sumicidin and S-3206 on male rat fertility. *Vet Med J Giza* 41(2):33-38.
- Hassouna I, Wickert H, El-Elaimy I, et al. 1996. Systemic application of pyrethroid insecticides evokes differential expression of c-fos and c-jun proteins in rat brain. *Neurotoxicology* 17(2):415-432.
- *HazDat. 2003. Agency of Toxic Substances and Disease Registry (ATSDR), Atlanta, GA. April 2003.
- *He F, Deng H, Ji X, et al. 1991. Changes of nerve excitability and urinary deltamethrin in sprayers. *Int Arch Occup Environ Health* 62:587-590.
- *He F, Sun J, Han K, et al. 1988. Effects of pyrethroid insecticides on subjects engaged in packaging pyrethroids. *Br J Ind Med* 45:548-551.
- *He F, Wang S, Liu L, et al. 1989. Clinical manifestations and diagnosis of acute pyrethroid poisoning. *Arch Toxicol* 63:54-58.

9. REFERENCES

- Heath J, Leahey JP. 1989. The metabolism of tefluthrin in the goat. *Pestic Sci* 25:375-389.
- Heder AF, Hirsch-Ernst KI, Bauer D, et al. 2001. Induction of cytochrome P450 2B1 by pyrethroids in primary rat hepatocyte cultures. *Biochem Pharmacol* 62:71-79.
- Helson BV, Payne NJ, Sundaram KMS. 1993. Impact assessment of spray drift from silvicultural aerial applications of permethrin on aquatic invertebrates using mosquito bioassays. *Environ Toxicol Chem* 12:1635-1642.
- Hemming H, Flodström S, Wärngård L. 1993. Enhancement of altered hepatic foci in rat liver and inhibition of intercellular communication *in vitro* by the pyrethroid insecticides fenvalerate, flucythrinate and cypermethrin. *Carcinogenesis* 14(12):2531-3535.
- *Hend RW, Gellatly JBM, Fleming DJ. 1979. Toxicity studies on the insecticide WL 41706: A three generation reproduction study (minus histopathology) in rats. Shell Oil Co. OTS0534728.
- Henshel DS, Allen CA, Lam Y, et al. 1996. A comparison of the early embryo effects of ethanol, 1,1,1-trichloroethane, atrazine, 2,4-D, methyl mercury, lead and 2,3,7,8-TCDD. *Toxicologist* March(1 pt2):197.
- *Herrera A, Laborda E. 1988. Mutagenic activity in synthetic pyrethroids in *Salmonella typhimurium*. *Mutagenesis* 3(6):509-514.
- Heudorf U, Angerer Juergen. 2001. Metabolites of pyrethroid insecticides in urine specimens: Current exposure in an urban population in Germany. *Environ Health Perspect* 109(3):213-7.
- *Hext PM. 1987. PP321: 4-Hour acute inhalation toxicity study in the rat. Imperial Chemical Industries PLC. OTS0545653.
- *Hext PM, Brammer A, Chalmers DT, et al. 1986. PP321: 1 Year oral dosing study in dogs. ICI Amers Inc. OTS0545310.
- *Hiatzer M, Hoss S, Traunspurger W, et al. 1998. Effects of dissolved organic matter (DOM) on the bioconcentration of organic chemicals in aquatic organisms—a review. *Chemosphere* 37(7):1335-1362.
- Hijzen TH, Slangen JL. 1988. Effect of Type I and Type II pyrethroids on the startle response in rats. *Toxicol Lett* 40:141-152.
- *Hijzen TH, De Beun R, Slangen JL. 1988. Effects of pyrethroids on the acoustic startle reflex in the rat. *Toxicology* 49:271-276.
- *Hill BD. 1983. Persistence of deltamethrin in a Lethbridge sandy clay loam. *J Environ Sci Health* B18(6):691-703.
- *Hill BD, Johnson DL. 1987. Persistence of deltamethrin and its isomers on pasture forage and litter. *J Agric Food Chem* 35:373-378.
- *Hiromori T, Nakanishi T, Kawaguchi S, et al. 1986. Therapeutic effects of methocarbamol on acute intoxication by pyrethroids in rats. *J Pestic Sci* 11:9-14.

9. REFERENCES

- *Hoel DG, Davis DL, Miller AB, et al. 1992. Trends in cancer mortality in 15 industrialized countries, 1969-1986. *J Natl Cancer Inst* 84(5):313-320.
- *Hoellinger H, Lecorsier A, Sonnier M, et al. 1987. Cytotoxicity, cytogenotoxicity and allergenicity tests on certain pyrethroids. *Drug Chem Toxicol* 10:291-310.
- Hoellinger H, Sonnier M, Pichon J, et al. 1983. In vivo covalent binding of cismethrin and bioresmethrin to hepatic proteins. *Toxicol Lett* 19:179-187.
- Holloway SF, Salgado VL, Wu CH, et al. 1989. Kinetic properties of single sodium channels modified by fenvalerate in mouse neuroblastoma cells. *Pflugers Arch* 414:613-621.
- Holmstead RL, Soderlund DM. 1977. Separation and analysis of the pyrethrins by combined gas-liquid chromatography-chemical ionization mass spectrometry. *J Assoc Off Anal Chem* 60(1):685-689.
- Hornychova M, Frantik E, Kubat J, et al. 1995. Neurotoxicity profile of supermethrin, a new pyrethroid insecticide. *Cent Eur J Public Health* 3(4):210-218.
- Hotchkiss SA, Hewitt P, Caldwell J. 1990. Absorption of cypermethrin through rat skin in vitro. *Eur J Pharmacol* 183:367.
- *Hour T-C, Chen L, Lin J-K. 1998. Comparative investigation on the mutagenicities of organophosphate, phthalimide, pyrethroid and carbamate insecticides by the Ames and lactam tests. *Mutagenesis* 13(2):157-166.
- *Howard PH, Meylan WM. 1997. Handbook of physical properties of organic chemicals. Boca Raton, FL: Lewis Publishers.
- Hoy JB, Cornell JA, Karlix JL, et al. 2000a. Interactions of pyridostigmine bromide, DEET and permethrin alter locomotor behavior of rats. *Vet Hum Toxicol* 42(2):65-71.
- Hoy JB, Cornell JA, Karlix JL, et al. 2000b. Repeated coadministration of pyridostigmine bromide, DEET, and permethrin alter locomotor behavior of rats. *Vet Hum Toxicol* 42(2):72-76.
- *HSDB. 2001. Pyrethrum: Environmental standards and regulations. Hazardous Substances Data Bank. <http://toxnet.nlm.nih.gov/>. April 19, 2001.
- *Hudson PM, Tilson HA, Chen PH, et al. 1986. Neurobehavioral effects of permethrin are associated with alterations in regional levels of biogenic amine metabolites and amino acid neurotransmitters. *Neurotoxicology* 7(1):143-154.
- Hundley HK, Cairns T, Luke MA, et al. 1988. Pesticide residue findings by the Luke Method in domestic and imported foods and animal feeds for fiscal years 1982-1986. *J Assoc Off Anal Chem* 71(5):875-892.
- *Hunt LM, Gilbert BC. 1977. Distribution and excretion rates of ¹⁴C-labeled permethrin isomers administered orally to four lactating goats for 10 days. *J Agric Food Chem* 25(3):673-676.
- Hunt LM, Gilbert BN, Lemeilleur CA. 1979. Distribution and depletion of radioactivity in hens treated dermally with ¹⁴C-labeled permethrin. *Poult Sci* 58:1197-1201.

9. REFERENCES

- *Husain R, Seth PK. 1991. Neurotoxic effects of deltamethrin, a synthetic pyrethroid during early development in rats. [Abstract]. *Int J Toxicol Occup Environ Health* 1(1):138.
- *Husain R, Gupta A, Khanna VK, et al. 1991. Neurotoxicological effects of a pyrethroid formulation, fenvalerate in rats. *Res Commun Chem Pathol Pharmacol* 73:111-114.
- Husain R, Husain R, Adhami VM, et al. 1996. Behavioral, neurochemical, and neuromorphological effects of deltamethrin in adult rats. *J Toxicol Environ Health* 48:515-526.
- *Hussain M, Perschke H. 1991. A study of factors affecting the persistence of deltamethrin applied to cotton fabric for tsetse fly control. *Chemosphere* 22(7):677-684.
- *Hutson DH. 1979. The metabolic fate of synthetic pyrethroid insecticides in mammals. *Prog Drug Metab* 5:215-252.
- Hutson DH, Casida JE. 1978. Taurine conjugation in metabolism of 3-phenoxybenzoic acid and the pyrethroid insecticide cypermethrin in mouse. *Xenobiotica* 8(9):565-571.
- Hutson DH, Logan CJ. 1986. The metabolic fate in rats of the pyrethroid insecticide WL85871, a mixture of two isomers of cypermethrin. *Pestic Sci* 17:548-558.
- *IARC. 2001. IARC agents and summary evaluations. Lyon, France: International Agency for Research on Cancer. <http://monographs.iarc.fr/>. April 19, 2001.
- Imamura L, Hasegawa H, Kurashina K, et al. 2002. Neonatal exposure of newborn mice to pyrethroid (permethrin) represses activity-dependent *c-fos* mRNA expression in cerebellum. *Arch Toxicol* 76:392-397.
- Institóris L, Siroki O, Undeger U, et al. 1999a. Immunotoxicological effects of repeated combined exposure by cypermethrin and the heavy metals lead and cadmium in rats. *Int J Immunopharmacol* 21:735-743.
- Institoris L, Siroki O, Undeger U, et al. 2001. Immunotoxicological investigation of subacute combined exposure by permethrin and the heavy metals arsenic(III) and mercury(II) in rats. *Int Immunopharmacol* 1:925-933.
- Institoris L, Siroki O, Undeger U, et al. 2002. Immunotoxicological investigation i rats dosed repeatedly with combinations of cypermethrin, As (III), and Hg(II). *Toxicology* 172:59-67.
- *Institóris L, Undeger U, Siroki O, et al. 1999b. Comparison of detection sensitivity of immuno- and genotoxicological effects of subacute cypermethrin and permethrin exposure in rats. *Toxicology* 137:47-55.
- *IRIS. 2003a. Chronic health hazard assessments for noncarcinogenic effects: Cyhalothrin. U.S. Environmental Protection Agency. Integrated Risk Information System. <http://www.epa.gov/iris/subst/0279.htm>. May 14, 2003.
- *IRIS. 2003b. Chronic health hazard assessments for noncarcinogenic effects: Cypermethrin. U.S. Environmental Protection Agency. Integrated Risk Information System. <http://www.epa.gov/iris/subst/0380.htm>. May 14, 2003.

9. REFERENCES

- *IRIS. 2003c. Chronic health hazard assessments for noncarcinogenic effects: Danitol. U.S. Environmental Protection Agency. Integrated Risk Information System. <http://www.epa.gov/iris/subst/0034.htm>. May 14, 2003.
- *IRIS. 2003d. Chronic health hazard assessments for noncarcinogenic effects: Permethrin. U.S. Environmental Protection Agency. Integrated Risk Information System. <http://www.epa.gov/iris/subst/0185.htm>. May 14, 2003.
- *IRIS. 2003e. Chronic health hazard assessments for noncarcinogenic effects: Resmethrin. U.S. Environmental Protection Agency. Integrated Risk Information System. <http://www.epa.gov/iris/subst/0343.htm>. May 14, 2003.
- *IRIS. 2003f. U.S. Environmental Protection Agency. Integrated Risk Information System. <http://www.epa.gov/iris/subst/index.html>. April 3, 2003.
- Ishikawa Y, Charalambous P, Matsumura F. 1989. Modification by pyrethroids and DDT of phosphorylation activities of rat brain sodium channel. *Biochem Pharmacol* 38(15):2449-2457.
- *Ishmael J, Litchfield MH. 1988. Chronic toxicity and carcinogenic evaluation of permethrin in rats and mice. *Fundam Appl Toxicol* 11:308-322.
- Isobe N, Kaneko H, Shiba K, et al. 1990. Metabolism of esfenvalerate in rats and mice and effects of its isomers on metabolic fates of esfenvalerate. *J Pestic Sci* 15:159-168.
- Ivie GW, Casida JE. 1971a. Photosensitizers for the accelerated degradation of chlorinated cyclodienes and other insecticide chemicals exposed to sunlight on bean leaves. *J Agric Food Chem* 19(3):410-416.
- Ivie GW, Casida JE. 1971b. Sensitized photodecomposition and photosensitizer activity of pesticide chemicals exposed to sunlight on silica gel chromatoplates. *J Agric Food Chem* 19(3):405-409.
- Izumi T, Kaneko H, Matsuo M, et al. 1984. Comparative metabolism of the six stereoisomers of phenothrin in rats and mice. *J Pestic Sci* 9:259-267.
- Jain RK. 1996. Fenvalerate (α -cyano-*m*-phenoxy-benzyl α -isopropyl-*p*-chlorophenyl acetate) residues in and on okra fruits. *Sci Total Environ* 187:253-255.
- Jao LT, Casida JE. 1974. Esterase inhibitors as synergists for (+)-*trans*-chrysanthemate insecticide chemicals. *Pestic Biochem Physiol* 4:456-464.
- *Johanson CE. 1980. Permeability and vascularity of the developing brain: Cerebellum vs. cerebral cortex. *Brain Res* 190:3-16.
- Johnstone DR, Cooper JF, Dobson HM. 1987. The availability and fall-out of an insecticidal aerosol dispersed from aircraft during operations for control of tsetse fly in Zimbabwe. *Atmos Environ* 21(11):2311-2321.
- Jokanović M, Maksimović M. 1995. A comparison of trinedoxime, obidoxime, pralidoxime and HI-6 in the treatment of oral organophosphorus insecticide poisoning in the rat. *Arch Toxicol* 70:119-123.
- Jordan EG, Kaufman DD. 1986. Degradation of *cis*- and *trans*-permethrin in flooded soil. *J Agric Food Chem* 34:880-884.

9. REFERENCES

- Joy RM, Albertson TE. 1991. Interactions of GABA_A antagonists with deltamethrin, diazepam, pentobarbital, and SKF100330A in the rat dentate gyrus. *Toxicol Appl Pharmacol* 109:251-262.
- Joy RM, Lister T, Ray DE, et al. 1990. Characteristics of the prolonged inhibition produced by a range of pyrethroids in the rat hippocampus. *Toxicol Appl Pharmacol* 103:528-538.
- Juhler RK, Lauridsen MG, Christensen MR, et al. 1999. Pesticide residues in selected food commodities: Results from the Danish National Pesticide Monitoring Program 1995-1996. *J Assoc Off Anal Chem Int* 82(2):337-358.
- *Junting L, Chuichang F. 1991. Solid phase extraction method for rapid isolation and clean-up of some synthetic pyrethroid insecticides from human urine and plasma. *Forensic Sci Int* 51:89-93.
- Kadota T, Okuno Y, Kohda H, et al. 1976. Mammalian toxicological study of permethrin, 3-phenoxybenzyl \pm -*cis, trans*-2,2-dimethyl-3-(2,2-dichlorovinyl)-cyclopropane-1-carboxylate. *Botyu-Kagaku* 41:143-151.
- Kadous A, Matsumura F, Enan E. 1994. High affinity binding of ³H-verapamil to rat brain synaptic membrane is antagonized by pyrethroid insecticides. *J Environ Sci Health B* 29(5):855-871.
- Kale M, Rathore N, John S, et al. 1999. Lipid peroxidative damage on pyrethroid exposure and alterations in antioxidant status in rat erythrocytes: A possible involvement of reactive oxygen species. *Toxicol Lett* 105:197-205.
- *Kale PG, Petty BT, Walker S, et al. 1995. Mutagenicity testing of nine herbicides and pesticides currently used in agriculture. *Environ Mol Mutagen* 25:148-153.
- Kallman M, Sylianco-Wu L, Wilson M, et al. 1990. Ability of diazepam (DZ) to block the perinatal neurotoxicity of Type I and Type II pyrethroid formulations. *Toxicologist* 10(1):172.
- Kamei J, Iguchi E, Sasaki M, et al. 2002. Modification of the fenvalerate-induced nociceptive response in mice by diabetes. *Brain Res* 948:17-23.
- Kaneko H, Izumi T, Matsuo M, et al. 1984a. Metabolism of fenvalerate in dogs. *J Pestic Sci* 9:269-274.
- *Kaneko H, Izumi T, Ueda Y, et al. 1984b. Metabolism and placental transfer of stereoisomers of tetramethrin isomers in pregnant rats. *J Pestic Sci* 9:249-258.
- Kaneko H, Matsuo M, Miyamoto J. 1984c. Comparative metabolism of stereoisomers of cyphenothrin and phenothrin isomers in rats. *J Pestic Sci* 9:237-247.
- Kaneko H, Ohkawa H, Miyamoto J. 1981a. Absorption and metabolism of dermally applied phenothrin in rats. *J Pestic Sci* 6:169-182.
- Kaneko H, Ohkawa H, Miyamoto J. 1981b. Comparative metabolism of fenvalerate and the [2S, α S]-isomer in rats and mice. *J Pestic Sci* 6:317-326.
- Kaneko H, Ohkawa H, Miyamoto J. 1981c. Metabolism of tetramethrin isomers in rats. *J Pestic Sci* 6:425-435.

9. REFERENCES

- Kaneko H, Shiba K, Yoshitake A, et al. 1987. Metabolism of fenpropathrin (S-3206) in rats. *J Pestic Sci* 12:385-395.
- Karen DJ, Li W, Harp PR, et al. 2001. Striatal dopaminergic pathways as a target for the insecticides permethrin and chlorpyrifos. *Neurotoxicology* 22(6):811-7.
- Karmos-Várszegi M, Dési I. 1984. Acute effect of pyrethroid insecticides on the behaviour of mice. *Acta Physiol Hung* 63:343-344.
- *Katagi T. 1991. Photodegradation of the pyrethroid insecticide esfenvalerate on soil, clay minerals, and humic acid surfaces. *J Agric Food Chem* 39:1351-1356.
- Kathren RL. 1994. Toward improved biokinetic models for actinides: the United States Transuranium and Uranium Registries, a twenty-five year report. *Radiat Prot Dosim* 53(1-4):219-227.
- Kathren RL. 1995. The United States Transuranium and Uranium Registries: 1968–1993. *Radiat Prot Dosim* 60(4):349-354.
- *Kaufman DD, Russell BA, Helling CS, et al. 1981. Movement of cypermethrin, decamethrin, permethrin, and their degradation products in soil. *J Agric Food Chem* 29:239-245.
- Kaul PP, Rastogi A, Hans RK, et al. 1996. Fenvalerate-induced alterations in circulatory thyroid hormones and calcium stores in rat brain. *Toxicol Lett* 89:29-33.
- Kaur J, Sandhu HS. 2000. Biochemical alterations induced by repeated dermal toxicity of cypermethrin and deltamethrin in buffalo calves. *Indian J Anim Sci* 70(7):708-709.
- *Kavlock R, Chernoff N, Baron R, et al. 1979. Toxicity studies with decamethrin, a synthetic pyrethroid insecticide. *J Environ Pathol Toxicol* 2:751-765.
- *Khan SU, Behki RM, Tapping RI, et al. 1988. Deltamethrin residues in an organic soil under laboratory conditions and its degradation by a bacterial strain. *J Agric Food Chem* 36:636-638.
- *Khan SU, Kacew S, Akhtar MH. 1986. Bioavailability of bound ^{14}C residues in rats from bean plants treated with ^{14}C -deltamethrin. *Chemosphere* 15(7):923-927.
- *Khan SU, Kacew S, Akhtar MH. 1990. Bound ^{14}C residues in stored wheat treated with [^{14}C] deltamethrin and their bioavailabilities in rats. *J Agric Food Chem* 38:1077-1082.
- Khan SU, Schnitzer M, Schulten HR. 1993. Fate of deltamethrin after nine years of incubation in an organic soil under laboratory conditions. *J Agric Food Chem* 41(7):1143-1151.
- Khanna RN, Gupta GSD, Anand M. 2002. Kinetics of distribution of cypermethrin in blood, brain, and spinal cord after a single administration to rabbits. *Bull Environ Contam Toxicol* 69:749-755.
- Khurana R, Mahipal SK, Chauhan RS. 1999. Effect of pesticides on delayed type hypersensitivity reaction in sheep. *Indian J Anim Sci* 69(11):880-881.
- Kim SS, Rhee GS, Kim SH, et al. 2002. Permethrin affects reproductive development in rats. *Teratology* 65(6):333.

9. REFERENCES

- Knox JM, Tucker SB. 1983. A new cutaneous sensation caused by synthetic pyrethroids. *Clin Res* 31(2):586A.
- *Knox JM, Tucker SR, Flannigan SA. 1984. Paresthesia from cutaneous exposure to a synthetic pyrethroid insecticide. *Arch Dermatol* 120:744-746.
- *Kolmodin-Hedman B, Swensson Å, Åkerblom M. 1982. Occupational exposure to some synthetic pyrethroids (permethrin and fenvalerate). *Arch Toxicol* 50:27-33.
- *Kolpin DW, Barbash JE, Gilliom RJ. 1998. Occurrence of pesticides in shallow groundwater of the United States: Initial results from the National Water-Quality Assessment Program. *Environ Sci Technol* 32(5):558-566.
- *Kolpin DW, Goolsby DA, Thurman EM. 1995. Pesticides in near-surface aquifers: an assessment using highly sensitive analytical methods and tritium. *J Environ Qual* 24:1125-1132.
- *Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human livers. *Biochemistry* 29:4430-4433.
- Kostka G, Palut D, Kopeć-Szłęzak J, et al. 2000. Early hepatic changes in rats induced by permethrin in comparison with DDT. *Toxicology* 142:135-143.
- Kowalczyk-Bronisz SH, Geldanowski J, Bubak B. 1990. Immunological profile of animals exposed to pesticide - deltamethrin. *Arch Immunol Ther Exp* 38:229-238.
- *Krapac IG, Roy WR, Smyth CA, et al. 1995. Occurrence and distribution of pesticides in soil at agricultural facilities in Illinois. *J Soil Contam* 4(3):209-226.
- *Kreuger J, Peterson M, Lundgren E. 1999. Agricultural inputs of pesticide residues to stream and pond sediments in a small catchment in southern Sweden. *Bull Environ Contam Toxicol* 62:55-62.
- *Krishnan K, Andersen ME. 1994. Physiologically based pharmacokinetic modeling in toxicology. In: Hayes AW, ed. *Principles and methods of toxicology*. New York, NY: Raven Press, Ltd., 149-188.
- *Krishnan K, Anderson ME, Clewell HJ III, et al. 1994. Physiologically based pharmacokinetic modeling of chemical mixtures. In: Yang RSH, ed. *Toxicology of chemical mixtures*. New York, NY: Academic Press, 399-437.
- Krishnappa K, Honnegowda, Jayakumar K, et al. 1999a. Effect of lambda cyhalothrin, on non-specific immune response in rats. *Indian Vet J* 76:1058-1061.
- Krishnappa H, Honnegowda, Suresh TP, et al. 1999b. Effect of λ -cyhalothrin, a synthetic pyrethroid insecticide on certain defense mechanisms and immune response in male rats. *Indian Vet J* 76:506-510.
- Krishnappa H, Honnegowda, Suresh TP, et al. 2000. Acute toxicity study of lambda cyhalothrin, a pyrethroid insecticide in rats. *Indian Vet J* 77:768-769.
- Kühn K-H, Leng G, Bucholski KA, et al. 1996. Determination of pyrethroid metabolites in human urine by capillary gas chromatography-mass spectrometry. *Chromatographia* 13:285-292.

9. REFERENCES

- *Kühn KH, Wieseler B, Leng G, et al. 1999. Toxicokinetics of pyrethroids in humans: consequences for biological monitoring. *Bull Environ Contam Toxicol* 62:101-108.
- Kumar S, Dhanaraj PS, Bhatnagar P. 1989. Bioconcentration and effects of dieldrin, dimethoate, and permethrin on *Saccharomyces cerevisiae*. *Bull Environ Contam Toxicol* 43:246-253.
- *Kunimatsu T, Yamada T, Keiko O, et al. 2002. Lack of (anti-) androgenic or estrogenic effects of three pyrethroids (esfenvalerate, fenvalerate, and permethrin) in the Hershberger and uterotrophic assays. *Regul Toxicol Pharmacol* 35:227-237.
- *Laughlin J, Newburn K, Gold RE. 1991. Pyrethroid insecticides and formulations as factors in residues remaining in apparel fabrics after laundering. *Bull Environ Contam Toxicol* 47:355-361.
- *Lawrence LL, Casida JE. 1983. Stereospecific action of pyrethroid insecticides on the γ -aminobutyric acid receptor-ionophore complex. *Science* 221:1399-1401.
- Lazarini CA, Florio JC, Lemonica IP, et al. 2001. Effects of prenatal exposure to deltamethrin on forced swimming behavior, motor activity, and striatal dopamine levels in male and female rats. *Neurotoxicol Teratol* 23:665-673.
- *Lee PW. 1985. Fate of fenvalerate (Pydrin insecticide) in the soil environment. *J Agric Food Chem* 33:993-998.
- Leahey JP, ed. 1985. *The pyrethroid insecticides*. Philadelphia PA: Taylor and Francis, 263-342.
- Lee PW, Stearns SM, Powell WR. 1985. Rat metabolism of fenvalerate (Pydrin insecticide). *J Agric Food Chem* 33:988-993.
- *Leeder JS, Kearns GL. 1997. Pharmacogenetics in pediatrics: Implications for practice. *Pediatr Clin North Am* 44(1):55-77.
- *Leng G, Lewalter J. 1999. Role of individual susceptibility in risk assessment of pesticides. *Occup Environ Med* 56:449-453.
- *Leng G, Kuhn K-H, Idel H. 1996. Biological monitoring of pyrethroid metabolites in urine of pest control operators. *Toxicol Lett* 88:215-220.
- *Leng G, Kühn K-H, Idel H. 1997a. Biological monitoring of pyrethroids in blood and pyrethroid metabolites in urine: Applications and limitations. *Sci Total Environ* 199:173-181.
- *Leng G, Kühn K-H, Wieseler B, et al. 1999a. Metabolism of (S)-bioallethrin and related compounds in humans. *Toxicol Lett* 107:109-121.
- *Leng G, Leng A, Kühn K, et al. 1997b. Human dose-excretion studies with the pyrethroid insecticide cyfluthrin: Urinary metabolite profile following inhalation. *Xenobiotica* 27(12):1273-1283.
- *Leng G, Lewalter J, Röhrig B, et al. 1999b. The influence of individual susceptibility in pyrethroid exposure. *Toxicol Lett* 107:123-130.
- Lenza-Rizos C, Avramides EJ. 1995. Pesticide residues in olive oil. *Rev Environ Contam Toxicol* 141:111-131.

9. REFERENCES

- *LeQuesne PM, Maxwell IC. 1980. Transient facial sensory symptoms following exposure to synthetic pyrethroids: A clinical and electrophysiological assessment. *Neurotoxicology* 2:1-11.
- *Lessenger JE. 1992. Five office workers inadvertently exposed to cypermethrin. *J Toxicol Environ Health* 35:261-267.
- Lessenger JE. 1995. A rash and chemical burns in a cowboy exposed to permethrin. *J Agromed* 2(3):25-28.
- *Leung H-W. 1993. Physiologically-based pharmacokinetic modeling. In: Ballentine B, Marro T, Turner P, eds. *General and applied toxicology*. New York: Stockton Press, 153-164.
- *Lewis RG, Bond AE, Johnson DE, et al. 1988. Measurement of atmospheric concentration of common household pesticides: A pilot study. *Environ Monit Assess* 10:59-73.
- *Litchfield MH. 1985. Toxicity to mammals. In: Leahey JP, ed. *The pyrethroid insecticides*. London: Taylor & Francis, 99-150.
- *Livingston AL. 1978. Forage plant estrogens. *J Toxicol Environ Health* 4:301-324.
- Llewellyn DM, Brazier A, Brown R, et al. 1996. Occupational exposure to permethrin during its use as a public hygiene insecticide. *Ann Occup Hyg* 40(5):499-509.
- Lock EA, Berry PN. 1980. Biochemical changes in the rat cerebellum following cypermethrin administration. *Dev Toxicol Environ Sci* 8:623-626.
- Lock EA, Berry PN. 1981. Biochemical changes in the rat cerebellum following cypermethrin administration. *Toxicol Appl Pharmacol* 59:508-514.
- *Loeser E, Eiben R. 1983. Multigeneration study on rats. Mobay Chemical Corporation. OTS0555303.
- *Lombet A, Mourre C, Lazdunski M. 1988. Interaction of insecticides of the pyrethroid family with specific binding sites on the voltage-dependent sodium channel from mammalian brain. *Brain Res* 459:44-53.
- Lord KA, McKinley M, Walker N. 1982. Degradation of permethrin in soils. *Environ Pollut* 29(Series A):81-90.
- Luke MA, Masumoto HT, Cairns T, et al. 1988. Levels and incidences of pesticide residues in various foods and animal feeds analyzed by the Luke multiresidue methodology for fiscal years 1982-1986. *J Assoc Off Anal Chem* 71(2):415-420.
- *Lukowicz-Ratajczak J, Krechniak J. 1992. Effects of deltamethrin on the immune system in mice. *Environ Res* 59:467-475.
- *Lutnicka H, Bogacka T, Wolska L, et al. 1999. Degradation of pyrethroids in an aquatic ecosystem model. *Wat Res* 33(16):3441-3446.
- Luty S, Latuszyńska J, Halliop J, et al. 1998. Toxicity of dermally applied alpha-cypermethrin in rats. *Ann Agric Environ Med* 5:109-115.

9. REFERENCES

- Luty S, Latuszyńska J, Pbuchowska-Przebirowska D, et al. 2000. Subacute toxicity of orally applied alpha-cypermethrin in Swiss mice. *Ann Agric Environ Med* 7:33-41.
- Lykken L. 1972. Role of photosensitizers in alteration of pesticide residues in sunlight. In: Matsumura F, Boush GM, Misato T, eds. *Environmental toxicology of pesticides*. New York, NY: Academic Press, 449-469.
- MacRae IC. 1989. Microbial metabolism of pesticides and structurally related compounds. *Rev Environ Contam Toxicol* 109:1-87.
- *Madsen C, Claesson MH, Röpke C. 1996. Immunotoxicity of the pyrethroid insecticides deltamethrin and α -cypermethrin. *Toxicology* 107:219-227.
- Magnusson B, Blohm SG, Fregert S, et al. 1968. Routine patch testing IV: Supplementary series of test substances for Scandinavian countries. *Acta Derm Venereol (Stockh)* 48:110-114.
- *Maguire RJ. 1990. Chemical and photochemical isomerization of deltamethrin. *J Agric Food Chem* 38:1613-1617.
- Maguire RJ. 1992a. Aquatic environmental fate of deltamethrin. *Water Sci Technol* 25(11):99-102.
- Maguire RJ. 1992b. The importance of pesticide volatilization from the surface microlayer of natural waters after aerial spraying. *Water Sci Technol* 25(11):111-116.
- *Maguire RJ, Carey JH, Hart JH, et al. 1989. Persistence and fate of deltamethrin sprayed on a pond. *J Agric Food Chem* 37:1153-1159.
- *Maiti PK, Kar A. 1998. Is triiodothyronine capable of ameliorating pyrethroid-induced thyroid dysfunction and lipid peroxidation? *J Appl Toxicol* 18:125-128.
- Maity NK, Punia JS. 1991. Effect of fluvalinate, a synthetic pyrethroid on learning and memory traces in rats. *Indian J Exp Biol* 29:178-179.
- Majumder S, Chakraborty AK, Mandal TK, et al. 1994. Subacute toxicity of fenvalerate in broiler chicks: Concentration, cytotoxicity and biochemical profiles. *Indian J Exp Biol* 32:752-756.
- *Malaviya M, Husain R, Seth PK, et al. 1993. Perinatal effect of two pyrethroid insecticides on brain neurotransmitter function in the neonatal rat. *Vet Hum Toxicol* 35(2):119-122.
- *Malley LA, Cagen SZ, Parker CM, et al. 1985. Effect of vitamin E and other amelioratory agents on the fenvalerate-mediated skin sensation. *Toxicol Lett* 29:51-58.
- Malone JC, Brown NC. 1968. Toxicity of various grades of pyrethrum to laboratory animals. *Pyrethrum Post* 4(3):3-8.
- Malpe ND, Phadnaik BS, Sadker RD, et al. 1996. Acute toxicity studies of deltamethrin in rats. *Indian Vet J* 73:217-219.
- Mandal TK, Bhattacharya A, Chakraborty AK, et al. 1992. Disposition kinetics, cytotoxicity and residues of fenvalerate in tissues following oral administration to goats. *Pestic Sci* 35:201-207.

9. REFERENCES

- *Mandal TK, Chakraborty AK, Bhattacharya A, et al. 1996. The disposition of kinetics and residues of fenvalerate in tissues following a single dermal application to black Bengal goats. *Vet Res Commun* 20:265-272.
- *Mandhane SN, Chopde CT. 1997. Neurobehavioral effects of low level fenvalerate exposure in mice. *Indian J Exp Biol* 35:623-627.
- Marei A, Ruzo LO, Casida JE. 1982. Analysis and persistence of permethrin, cypermethrin, deltamethrin, and fenvalerate in the fat and brain of treated rats. *J Agric Food Chem* 30:558-562.
- Martin CN, Kennelly JC. 1985. Metabolism, mutagenicity, and DNA binding of biphenyl-based azodyes. *Drug Metab Rev* 16:89-117.
- Masri MS, Hendrickson AP, Cox AJ, et al. 1964. Subacute toxicity of two chrysanthemumic acid esters: Barthrin and dimethrin. *Toxicol Appl Pharmacol* 6:716-725.
- *Mayr U, Butsch A, Schneider S. 1992. Validation of two in vitro test systems for estrogenic activities with zearalenone, phytoestrogens and cereal extracts. *Toxicology* 74:135-149.
- *Mbaria JM, Maitho TE, Muchiri DJ. 1993. Median lethal doses, clinical signs and post-mortem changes in acute pyrethrins toxicity in sheep and rabbits. *Pyrethrum Post* 19(1):26-29.
- *McCain WC, Lee R, Johnson MS, et al. 1997. Acute toxicity study of pyridostigmine bromide, permethrin, and DEET in the laboratory rat. *J Toxicol Environ Health* 50:113-124.
- *McCord CP, Kilker CH, Minster DK. 1921. Pyrethrum dermatitis: A record of the occurrence of occupational dermatosis among workers in the pyrethrum industry. *JAMA* 77(6):448-449.
- *McDaniel KL, Moser VC. 1993. Utility of a neurobehavioral screening battery for differentiating the effects of two pyrethroids, permethrin and cypermethrin. *Neurotoxicol Teratol* 15:71-83.
- McKillop CM, Brock JAC, Oliver GJA. 1984. Pyrethroid and aconitine binding sites. *Neurotoxicology* 5(4):75.
- McKillop CM, Brock JAC, Oliver GJA, et al. 1987. A quantitative assessment of pyrethroid-induced paraesthesia in the guinea-pig flank model. *Toxicol Lett* 36:1-7.
- McPhail RC, Gordon WA, Johnston MA. 1981. Behavioral effects of a synthetic pyrethroid insecticide (deca-methrin). *Fed Proc Fed Am Soc Exp Biol* 40(3):678.
- *Metcalf RL. 1989. Insect control. In: Elvers B, Hawkins S, Ravenscroft M, et al., eds. *Ullmann's encyclopedia of industrial chemistry*. Germany: VCH, 263-277.
- *Metcalf RL. 1995. Insect control technology. In: *Kirk-Othmer encyclopedia of chemical technology*. New York: John Wiley and Sons, 533-602.
- *Meyer EK. 1999. Toxicosis in cats erroneously treated with 45 to 65% permethrin products. *J Am Vet Med Assoc* 215(2):198-203.

9. REFERENCES

- *Meylan WM, Howard PH. 1993. Computer estimation of the atmospheric gas-phase reaction rate of organic compounds with hydroxyl radicals and ozone. *Chemosphere* 26(12):2293-2299.
- Miadoková E, Garajová L. 1994. Genotoxicity testing of the technical supercypermethrin in the SOS chromotest. *Acta Fac Rerum Nat Univ Comenianaee, Form Prot Nat* 16:37-43.
- Miadoková E, Garajová L, Podstavková S, et al. 1993. Non-mutagenic effect of supercypermethrin forte proved in salmonella typhimurium. *Acta Fac Rerum Nat Univ Comenianaee, Genet Biol Mol* 24-25:9-14.
- *Miadoková E, Miklovičová M, Dúhová V, et al. 1991. Effects of the insecticide pyrethroid II in the Ames test, and on *Hordeum vulgare* and *Vicia faba*. *Biol Plant* 33(2):156-162.
- *Miadoková E, Vlčková V, Dúhová V, et al. 1992. Effects of supercypermethrin, a synthetic developmental pyrethroid, on four biological test systems. *Mutat Res* 280:161-168.
- Mikula I, Pisl J, Kačmár P. 1992. Immune response of sheep at subchronic intoxication by pyrethroid insecticide supercypermethrine. *Acta Vet Brno* 61:57-60.
- *Millet M, Wortham H, Sanusi A, et al. 1997. Atmospheric contamination by pesticides: Determination in the liquid, gaseous and particulate phases. *Environ Sci Pollut Res* 4(3) 172-180.
- *Milne GWA. 1995. CRC handbook of pesticides. Boca Raton: CRC Press.
- Misra S, Sharma CB. 1997. Metabolism and bioaccumulation of fenvalerate and its metabolites in rat organs. *Biomed Chromatogr* 11:50-53.
- *Mitchell JA, Wilson MC, Kallman MJ. 1988. Behavioral effects of pydrin and ambush in male mice. *Neurotoxicol Teratol* 10:113-119.
- Mitchell JC, Dupuid G, Towers GH. 1972. Allergic contact dermatitis from pyrethrum (*Chrysanthemum* spp.). The roles of pyrethrosin, a sesquiterpene lactone, and of pyrethrin II. *Br J Dermatol* 86:568-573.
- *Mitsche T, Borck H, Horr B, et al. 2000. Pyrethroid syndrome in an animal keeper. *Allergy* 55:93-94.
- *Miyamoto J. 1976. Degradation, metabolism and toxicity of synthetic pyrethroids. *Environ Health Perspect* 14:15-28.
- *Miyamoto J, Kaneko H, Tsuji R, et al. 1995. Pyrethroids, nerve poisons: How their risks to human health should be assessed. *Toxicol Lett* 82:933-940.
- Miyamoto J, Nishida T, Ueda K. 1971. Metabolic fate of resmethrin, 5-benzyl-3-furymethyl dl-trans-chrysanthemate in the rat. *Pestic Biochem Physiol* 1:293-306.
- Miyamoto J, Sato Y, Yamamoto K, et al. 1968. Biochemical studies on the mode of action of pyrethroidal insecticides. Part I. Metabolic fate of phthalthrins in mammals. *Agric Biol Chem* 32(5):628-640.
- Miyamoto J, Suzuki T, Nakae C. 1974. Metabolism of phenothrin or 3-phenoxybenzyl d- *trans*-chrysanthemumate in mammals. *Pestic Biochem Physiol* 4:438-450.

9. REFERENCES

- MMWR. 2000. Illnesses associated with use of automatic insecticide dispenser units-Selected states and United States, 1986-1999. *Morbidity and Mortality Weekly Report* 49:492-495.
- Mohamed OSA, Adam SEI. 1990. Toxicity of Sumicidin (fenvalerate) to Nubian goats. *J Comp Pathol* 102(1):1-6.
- Mohamed OSA, Adam SEI. 1992. Effect of phenobarbitone pretreatment on the toxicity of temik and Sumicidin in Nubian goats. *Vet Hum Toxicol* 34:138-140.
- *Mohan EM, Banupriya CAY, Anitha K, et al. 1998. Effect of sublethal dose of chlorpyrifos 48% EC and cypermethrin 25% EC in Wistar rats. *Pollut Res* 17(1):13-16.
- *Moniz AC, Bernardi NM, Souza-Spinosa HS, et al. 1990. Effects of exposure to a pyrethroid insecticide during lactation on the behavior of infant and adult rats. *Braz J Med Biol Res* 23:45-48.
- *Moniz AC, Bernardi MM, Spinosa HS. 1994. Effects of a pyrethroid Type II pesticide on conditioned behaviors of rats. *Vet Hum Toxicol* 36(2):120-124.
- Moniz AC, Cruz-Casallas PE, Oliveira CA, et al. 1999. Perinatal fenvalerate exposure: Behavioral and endocrinology changes in male rats. *Neurotoxicol Teratol* 21(5):611-618.
- Moore JB. 1972. Pyrethrum extract: Part 2. Toxicology and pharmacology of pyrethrum extract. In: Nelson RH, ed. *Pyrethrum flowers*. Minneapolis, MN: McLaughlin Gormley King Co., 68-82.
- *Moore JB. 1975. Pyrethrum extract. In: Nelson RH, ed. *Pyrethrum flowers*. Minneapolis, MI: McLaughlin Gormley King Co., 68-82.
- Moretti M, Villarini M, Scassellati-Sforzolini G, et al. 1997. Applicability of aspecific noninvasive methods for biomonitoring of occupational exposure to deltamethrin: Preliminary study using an animal model. *Arch Environ Contam Toxicol* 33:323-328.
- *Moretto A. 1991. Indoor spraying with the pyrethroid insecticide λ -cyhalothrin: Effects on spraymen and inhabitants of sprayed houses. *Bull WHO* 59(5):591-594.
- *Moriya M, Ohta T, Watanabe K, et al. 1983. Further mutagenicity studies on pesticides in bacterial reversion assay systems. *Mutat Res* 116:185-216.
- *Morselli PL, Franco-Morselli R, Bossi L. 1980. Clinical pharmacokinetics in newborns and infants: Age-related differences and therapeutic implications. *Clin Pharmacokin* 5:485-527.
- Motomura H, Narahashi T. 2001. Interaction of tetramethrin and deltamethrin at the single sodium channel in rat hippocampal neurons. *Neurotoxicology* 22(3):329-39.
- Mount ME, Moller G, Cook J, et al. 1991. Clinical illness associated with a commercial tick and flea product in dogs and cats. *Vet Hum Toxicol* 33(1):19-27.
- Moussa M, Iskander KG, Gorgy AA. 1989. Scanning electron microscopic investigation of the effect of chronic toxicity on the permethrin on the tongue papillae of albino rats. *Egypt Dent J* 35(2):107-115.
- *Mueller-Beilschmidt D. 1990. Toxicology and environmental fate of synthetic pyrethroids. *J Pestic Ref* 10(3). http://www.igc.org/panna/resources/_pestis/PESTIS.1996.14.html. February 22, 2001.

9. REFERENCES

- *Muir DCG, Rawn GP, Grift NP. 1985. Fate of the pyrethroid insecticide deltamethrin in small ponds: A mass balance study. *J Agric Food Chem* 33:603-609.
- Müller-Mohnssen H. 1999. Chronic sequelae and irreversible injuries following acute pyrethroid intoxication. *Toxicol Lett* 107:161-175.
- Nakamura Y, Tonogai Y, Sekiguchi Y, et al. 1994. Multiresidue analysis of 48 pesticides in agricultural products by capillary gas chromatography. *J Agric Food Chem* 42:2508-2518.
- Nakanishi M, Hamada Y, Izaki K. 1970. Toxicological studies on a new pyrethroid: Kikuthrin (part II). *Botyu-Kagaku* 35:113-116.
- Nakanishi M, Kato Y, Furuta T, et al. 1971. [Metabolic fate of proparthrin. Studies on insecticide. VIII.] *Botyu-Kagaku* 36:116-121. (Japanese).
- *Nakano E, Rabello-Gay MN, Pereira CA. 1996. Evaluation of the genotoxic potential of flumethrin in mouse bone marrow by chromosomal analysis and micronucleus test. *Teratog Carcinog Mutagen* 16:37-48.
- *Narahashi T. 1971. Mode of action of pyrethroids. *Bull Organ Mond Sante* 44:337-345.
- *Narahashi T. 1976. Nerve membrane as a target of pyrethroids. *Pestic Sci* 7:267-272.
- Narahashi T. 1982. Cellular and molecular mechanisms of action of insecticides: Neurophysiological approach. *Neurobehav Toxicol Teratol* 4:753-758.
- *Narahashi T. 1985. Nerve membrane ionic channels as the primary target of pyrethroids. *Neurotoxicology* 6(2):3-22.
- *Narahashi T. 1986. Mechanisms of action of pyrethroids on sodium and calcium channel gating. In: Ford MG, Lunt GG, Reay RC, et al., eds. *Neuropharmacology and pesticide action*. Deerfield Beach, FL: VCH, 267-285.
- *Narahashi T. 1996. Neuronal ion channels as the target sites of insecticides. *Pharmacol Toxicol* 78:1-14.
- Narahashi T, Carter DB, Frey J, et al. 1995. Sodium channels and GABA_A receptor-channel complex as targets of environmental toxicants. *Toxicol Lett* 82/83:239-245.
- Narahashi T, Frey JM, Ginsburg KS, et al. 1992. Sodium and GABA-activated channels as the targets of pyrethroids and cyclodienes. *Toxicol Lett* 64/65:429-436.
- Narahashi T, Ginsburg KS, Nagata K, et al. 1998. Ion channels as targets for insecticides. *Neurotoxicology* 19(4-5):581-590.
- Nassif M, Brooke JP, Hutchinson DBA, et al. 1980. Studies with permethrin against body lice in Egypt. *Pestic Sci* 11:679-684.
- *NAS/NRC. 1989. Report of the oversight committee. In: *Biologic markers in reproductive toxicology*. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press.

9. REFERENCES

- *Nehéz M, Lorencz R, Dési I. 2000. Simultaneous action of cypermethrin and two environmental pollutant metals, cadmium and lead, on bone marrow cell chromosomes of rats in subchronic administration. *Ecotoxicol Environ Saf* 45:55-60.
- Neidert E, Saschenbrecker PW. 1996. Occurrence of pesticide residues in selected agricultural food commodities available in Canada. *J Assoc Off Anal Chem Int* 79(2):549-566.
- *NIOSH. 1987. Registry of toxic effects of chemical substances. Vol. 4. 1985-86 ed. Washington, DC U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health, 3687.
- *NIOSH. 1989. National occupational health survey of mining. Pyrites report. National Institute for Occupational Safety and Health. PB90-180787.
- *NIOSH. 2001. Documentation for immediately dangerous to life or health concentrations (IDLHs). National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/idlh/8003347.html>. April 13, 2001.
- Nozaki S, Takahashi M, Hashimoto K. 1995. Effect of pyrethroid (allethrin and fenvalerate) on excitability changes following nerve impulse. *J Occup Health* 37:5-8.
- *NRC. 1993. National Research Council. Pesticides in the diets of infants and children. Washington, DC: National Academy Press.
- *Ohkawa H, Kaneko H, Tsuji H, et al. 1979. Metabolism of fenvalerate (Sumicidin) in rats. *J Pestic Sci* 4:143-155.
- *Ohsawa K, Casida JE. 1980. Metabolism in rats of the potent knockdown pyrethroid kadethrin. *J Agric Food Chem* 28:250-255.
- Okumura D, Melnicoe R, Jackson T, et al. 1991. Pesticide residues in food crops analyzed by the California Department of Food and Agriculture in 1989. *Rev Environ Contam Toxicol* 118:87-151.
- *Okuno Y, Ito S, Seki T, et al. 1986a. Fenvalerate-induced granulomatous changes in rats and mice. *J Toxicol Sci* 11:53-66.
- Okuno Y, Seki T, Ito S, et al. 1986b. Differential metabolism of fenvalerate and granuloma formation. *Toxicol Appl Pharmacol* 83:157-169.
- *Oraby HA. 1997. Micronuclei formation in bone marrow cells of rats treated with meothrin (synthetic pyrethroid). *J Appl Toxicol* 17(6):353-356.
- Ortiz D, Yáñez L, Gómez H, et al. 1995. Acute toxicological effects in rats treated with a mixture of commercially formulated products containing methyl parathion and permethrin. *Ecotoxicol Environ Saf* 32:154-158.
- *OSHA. 2001a. Limits for air contaminants. U.S. Department of Labor. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000, Table Z-1. <http://www.osha-slc.gov/OshStddata/19101000TABLEZ-1.html>. March 26, 2001.

9. REFERENCES

- *OSHA. 2001b. OSHA regulations: Air contaminants. U.S. Department of Labor. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1915.1000. <http://www.osha-slc.gov/OshStddata/19151000.html>. March 26, 2001.
- *OSHA. 2001c. OSHA Regulations: Gases, vapors, fumes, dusts, and mists. U.S. Department of Labor. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1926.55. <http://www.osha-slc.gov/OshStddata/19260055.html>. March 26, 2001.
- *Owen GM, Brozek J. 1966. Influence of age, sex and nutrition on body composition during childhood and adolescence. In: Falkner F, ed. Human development. Philadelphia, PA: WB Saunders, 222-238.
- Pall HS, Williams AC, Waring R, et al. 1987. Motorneuron disease as manifestation of pesticide toxicity. [Abstract]. *Lancet* II(8560):685.
- Pang G-F, Fan C-L, Chao Y-Z, et al. 1994. Packed-column gas chromatographic method for the simultaneous determination of 10 pyrethroid insecticide residues in fruits, vegetables, and grains. *J Assoc Off Anal Chem* 77(3):738-747.
- *Pang G-F, Cao Y-Z, Fan C-L, et al. 1997. Modification of AOAC multiresidue method for determining synthetic pyrethroid residues in fruits, vegetables, and grains. Part III: Studies of analyte stability and method ruggedness. *J Assoc Off Anal Chem Int* 80(1):63-73.
- *Parihar NS, Gupta A. 1998. Fenvalerate residues in green pods, pod cover, and grain of pigeonpea (*Cajanus cajan L.*). *Bull Environ Contam Toxicol* 60:159-163.
- *Parker CM, Albert JR, Van Gelder GA, et al. 1985. Neuropharmacologic and neuropathologic effect of fenvalerate in mice and rats. *Fundam Appl Toxicol* 5:278-286.
- *Parker CM, McCullough CB, Gellatly JBM, et al. 1983. Toxicologic and carcinogenic evaluation of fenvalerate in the B6C3F1 mouse. *Fundam Appl Toxicol* 3:114-120.
- *Parker CM, Patterson DR, Van Gelder GA, et al. 1984a. Chronic toxicity and carcinogenicity evaluation of fenvalerate in rats. *J Toxicol Environ Health* 13:83-97.
- *Parker CM, Piccirillo VJ, Kurtz SL, et al. 1984b. Six-month feeding study of fenvalerate in dogs. *Fundam Appl Toxicol* 4:577-586.
- Parker CM, Wimberly HC, Lam AS, et al. 1986. Subchronic feeding study of decarboxyfenvalerate in rats. *J Toxicol Environ Health* 18:77-90.
- *Paterson S, Mackay D, Tam D, et al. 1990. Uptake of organic chemicals by plants: A review of processes, correlations and models. *Chemosphere* 21(3):297-331.
- *Pati PC, Bhunya SP. 1989. Cytogenetic effects of fenvalerate in mammalian in vivo test system. *Mutat Res* 222:149-154.
- Patro N, Mishra SK, Chattopadhyay M, et al. 1997. Neurotoxicological effects of deltamethrin on the postnatal development of cerebellum of rat. *J Biosci* 22(2):117-130.
- Pauluhn J. 1996. Risk assessment of pyrethroids following indoor use. *Toxicol Lett* 88:339-348.

9. REFERENCES

- Pauluhn J, Machemer LH. 1998. Assessment of pyrethroid-induced paraesthesias: Comparison of animal model and human data. *Toxicol Lett* 96/97:361-368.
- *Pauluhn J, Thyssen J. 1982. Study for acute inhalation toxicology (effect of formulating agent on inhalation). Miles Inc. OTS0543768.
- Peele DB, Crofton KM. 1987. Pyrethroid effects on schedule-controlled behavior: Time and dosage relationships. *Neurotoxicol Teratol* 9:387-394.
- *Peter JV, John G, Cherian AM. 1996. Pyrethroid poisoning. *J Assoc Physicians India* 44(5):343-344.
- *Pluijmen M, Drevon C, Montesano R, et al. 1984. Lack of mutagenicity of synthetic pyrethroids in *Salmonella typhimurium* strains and in V79 Chinese hamster cells. *Mutat Res* 137:7-15.
- *Poláková H, Vargová M. 1983. Evaluation of the mutagenic effects of decamethrin: Cytogenetic analysis of bone marrow. *Mutat Res* 120:167-171.
- *Pomorska K. 1999. Determination of alphacypermethrin in the air by capillary gas chromatography. *Int J Occup Saf Ergon* 5(4):529-536.
- Popovic J, Mikov M, Stanulovic M, et al. 2001. Clinical study of permethrin efficacy and toxicity. *Toxicol Lett* 123:89.
- *Poulos L, Athanaselis S, Coutselinis A. 1982. Acute intoxication with cypermethrin (NRDC 149). *J Toxicol Clin Toxicol* 19(5):519-520.
- Pozzi C, Marai P, Ponti R, et al. 1985. Toxicity in man due to stain removers containing 1,2-dichloropropane. *Br J Ind Med* 42:770-772.
- Prinsen GH, Van Sittert NJ. 1980. Exposure and medical monitoring study of a new synthetic pyrethroid after one season of spraying on cotton in Ivory Coast. In: Tordoir WF, Van Heemstra-Lequin EAH, eds. Field worker exposure during pesticide application. New York, NY: Elsevier Scientific Publishing Co., 105-120.
- *Puig M, Carbonell E, Xamena N, et al. 1989. Analysis of cytogenetic damage induced in cultured human lymphocytes by the pyrethroid insecticides cypermethrin and fenvalerate. *Mutagenesis* 4(1):72-74.
- Punareewattana K, Smith BJ, Blaylock BL, et al. 2001. Topical permethrin exposure inhibits antibody production and macrophage function in C57Bl/6N mice. *Food Chem Toxicol* 39:133-139.
- Queiroz MLS. 1993a. Effects of deltamethrin on the growth and differentiation of bone marrow hematopoietic stem cells. *Braz J Med Biol Res* 26:525-535.
- Queiroz MLS. 1993b. Hematopoietic effects in mice exposed to deltamethrin and hydrocortisone. *Int J Immunopharmacol* 15(3):301-307.
- *Quistad GB, Selim S. 1983. Fluvalinate metabolism by Rhesus monkeys. *J Agric Food Chem* 31:596-599.

9. REFERENCES

*Quistad GB, Staiger LE, Jamieson GC, et al. 1982. Metabolism of fluvalinate by a lactating dairy cow. *J Agric Food Chem* 30:895-901.

*Quistad GB, Staiger LE, Jamieson GC, et al. 1983. Fluvalinate metabolism by rats. *J Agric Food Chem* 31:589-596.

Ramon MF, Ballesteros S, Martinez-Arrieta R, et al. 1999. A prospective study of pyrethroids exposures. *J Toxicol Clin Toxicol* 37:664.

Rangaswamy V, Venkateswarlu K. 1992. Degradation of selected insecticides by bacteria isolated from soil. *Bull Environ Contam Toxicol* 49:797-804.

Rangoonwala S, Suryawanshi SA, Pandey AK. 1996. Effects of fenvalerate on serum calcium and inorganic phosphate levels, and tissue phosphatases of *Rattus norvegicus*. *J Adv Zool* 17(1):15-19.

Rani S, Dua KK. 1999. Cypermethrin toxicity induced histological and biochemical changes in the liver of albino rats (*Rattus norvegicus*). *J Ecotoxicol Environ Monit* 9(1):41-46.

Rao KSP, Chetty CS, Desai D. 1984. *In vitro* effects of pyrethroids on rat brain and liver ATPase activities. *J Toxicol Environ Health* 14:257-265.

*Rawn GP, Webster GRB, Muir DCG. 1982. Fate of permethrin in model outdoor ponds. *J Environ Sci Health B17(5):463-486*.

Ray DE. 1980. An EEG investigation of decamethrin-induced choreoathetosis in the rat. *Exp Brain Res* 38:221-227.

Ray DE. 1982a. Changes in brain blood flow associated with deltamethrin-induced choreoathetosis in the rat. *Exp Brain Res* 45:269-276.

Ray DE. 1982b. The contrasting actions of two pyrethroids (deltamethrin and cismethrin) in the rat. *Neurobehav Toxicol Teratol* 4:801-804.

*Ray DE. 1991. Pesticides derived from plants and other organisms. In: *Handbook of Pesticide Toxicology*. Vol. 2. Hayes WJ, Laws ER, eds. Academic Press, Inc., 585-636.

*Ray DE, Cremer JE. 1979. The action of decamethrin (a synthetic pyrethroid) on the rat. *Pestic Biochem Physiol* 10:333-340.

Ray DE, Sutharsan S, Forshaw PJ. 1997. Actions of pyrethroid insecticides on voltage-gated chloride channels in neuroblastoma cells. *Neurotoxicology* 18(3):755-760.

*Ray DE, Verschoyle, Muhammad BY. 2002. Reproducibility of developmental neurotoxicity produced by pyrethroids and DDT in neonatal mice. *Toxicologist* 66(1-S):131.

Reddy BN, Reddy KS, Janardhan A. 1991. Effect of dimethoate and fenvalerate on conditioned avoidance and passive avoidance responses. *Indian J Exp Biol* 29:176-177.

Rekling JC, Theophilidis G. 1995. Effects of the pyrethroid insecticide, deltamethrin, on respiratory modulated hypoglossal motoneurons in a brain stem slice from newborn mice. *Neurosci Lett* 198:189-192.

9. REFERENCES

- Rhodes C, Jones BK, Croucher A, et al. 1984. The bioaccumulation and biotransformation of *cis*, *trans*-cypermethrin in the rat. *Pestic Sci* 25:471-480.
- Rickard J, Brodie ME. 1985. Correlation of blood and brain levels of the neurotoxic pyrethroid deltamethrin with the onset of symptoms in rats. *Pestic Biochem Physiol* 23:143-156.
- Rickett FE, Tyszkiewicz K. 1973. Pyrethrum dermatitis II. The allergenicity of pyrethrum cleoresin and its cross-reactions with the saline extract of pyrethrum flowers. *Pestic Sci* 4:801-810.
- *Ridlen RL, Christopher RJ, Ivie GW, et al. 1984. Distribution and metabolism of *cis*- and *trans*-resmethrin in lactating Jersey cows. *J Agric Food Chem* 32:1211-1217.
- *Rigakis KB, Martin-Scott S, Crown EM, et al. 1987. Limiting pesticide exposure through textile cleaning procedures and selection of clothing. *Agric Forestry Bull* 10(2):24-27.
- *Rivera J, Caixach J, Ventura F, et al. 1985. Herbicide and surfactant spill analysis of an industrial waste dumping at Llobregat River (Spain). *Chemosphere* 14(5):395-402.
- Riviere JE, Baynes RE, Brooks JD, et al. 2003. Percutaneous absorption of topical N,N-diethyl-*m*-toluamide (DEET): Effects of exposure variables and coadministered toxicants. *J Environ Toxicol Environ Health A* 66:133-151.
- Robertson KE. 1997. Potentially toxic self-treatment of uremic pruritus with topical pyrethroid insecticides. *Ann Pharmacother* 31:120-121.
- *Roinestad KS, Louis JB, Rosen JD. 1993. Determination of pesticides in indoor air and dust. *J Assoc Off Anal Chem Int* 76(5):1121-1126.
- Ronis MJJ, Barger TM, Gandy J, et al. 1995. Anti-androgenic effects of perinatal cypermethrin exposure in the developing rat. *Neurotoxicology* 16(4):763.
- *Rose GP, Dewar AJ. 1983. Intoxication with four synthetic pyrethroids fails to show any correlation between neuromuscular dysfunction and neurobiochemical abnormalities in rats. *Arch Toxicol* 53:297-316.
- Rosenberg AM, Semchuk KM, McDuffie HH, et al. 1999. Prevalence of antinuclear antibodies in a rural population. *J Toxicol Environ Health* 56:225-236.
- Ross J, Fong HR, Thongsinthusak T, et al. 1991. Measuring potential dermal transfer of surface pesticide residue generated from indoor fogger use: Using the CDFA roller method interim report II. *Chemosphere* 22(9-10):975-984.
- *Ross J, Thongsinthusak T, Fong HR, et al. 1990. Measuring potential dermal transfer of surface pesticide residue generated from indoor fogger use: An interim report. *Chemosphere* 20(3/4):349-360.
- Roy RR, Albert RH, Wilson P, et al. 1995. U.S. Food and Drug Administration pesticide program: Incidence/level monitoring of domestic and imported pears and tomatoes. *J Assoc Off Anal Chem Int* 78(4):930-940.

9. REFERENCES

- Ruzo LO, Casida JE. 1977. Metabolism and toxicology of pyrethroids with dihalovinyl substituents. *Environ Health Perspect* 21:285-292.
- Ruzo LO, Casida JE, Holden I. 1985. Pyrethroid chemistry: Reactive α,β -unsaturated keto aldehydes from peracid oxidation, oxidative photodecomposition, and metabolism of 5-benzyl-3-furylmethyl derivatives. *J Agric Food Chem* 33:622-625.
- *Ruzo LO, Unai T, Casida JE. 1978. Decamethrin metabolism in rats. *J Agric Food Chem* 26(4):918-925.
- *Ryu J-C, Kim K-R, Kim H-J, et al. 1996. Evaluation of the genetic toxicity of synthetic chemicals (II), a pyrethroid insecticide, fenprothrin. *Arch Pharmacol Res* 19(4):251-257.
- Salawu OA, Iyaniwura TT. 2000. Effects of anticonvulsants on acute cypermethrin poisoning in mice and rats. *Vet Hum Toxicol* 42(5):303-305.
- Saleh MAA, Mohamed ZA, Ahmed FA, et al. 1986. Comparative toxicity of flucythrinate and fenvalerate to albino rats. *Egypt J Food Sci* 14(1):31-37.
- Salem HAH, Al-Busadah KA, Hussein YA, et al. 1999. Effect of supracide and sharkesuper administrations on thyroid, gonadotrophic and female sex hormones in rabbits. *Pak Vet J* 19(4):188-191.
- Salem MH, Abo-Elezz Z, Abd-Allah GA, et al. 1988. Effect of organophosphorous (dimethoate) and pyrethroid (deltamethrin) pesticides on semen characteristics in rabbits. *J Environ Sci Health B* 23(3):279-290.
- *Samsonov YN, Makarov VI. 1996. Kinetics and photophysical mechanism of sunlight photolysis of unstable resmethrin and phenothrin in aerosols and thin films. *Bull Environ Contam Toxicol* 56:903-910.
- *Santoni G, Cantalamessa F, Cavagna R, et al. 1998. Cypermethrin-induced alteration of thymocyte distribution and functions in prenatally-exposed rats. *Toxicology* 125:67-78.
- *Santoni G, Cantalamessa F, Mazzucca L, et al. 1997. Prenatal exposure to cypermethrin modulates rat NK cell cytotoxic functions. *Toxicology* 120:231-242.
- *Santoni G, Cantalamessa F, Spreghini E, et al. 1999. Alterations of T cell distribution and functions in prenatally cypermethrin-exposed rats: Possible involvement of catecholamines. *Toxicology* 138:175-187.
- Satpathy SK, Tyagi PK, Das BS, et al. 1997. Evaluation of possible toxic effects of cyfluthrin during short-term, relevant community exposure. *Bull Environ Contam Toxicol* 59:681-687.
- *Sattelle DB, Yamamoto D. 1988. Molecular targets of pyrethroid insecticides. *Adv Insect Physiol* 20:147-213.
- Schattenberg HF, Hsu JP. 1992. Pesticide residue survey of produce from 1989 to 1991. *J Assoc Off Anal Chem Int* 75(5):925-933.
- *Schimmel SC, Garnas RL, Patrick JM, et al. 1983. Acute toxicity, bioconcentration, and persistence of AC 222,705, benthio carb, chlorpyrifos, fenvalerate, methyl parathion, and permethrin in the estuarine environment. *J Agric Food Chem* 31:104-114.

9. REFERENCES

- Schmidt S. 1998. Biodegradation of diaryl ether pesticides. In: Wittich RM, ed. Biodegradation of dioxins and furans. R.G. Landes Company, 229-281.
- *Schoenig GP. 1995. Mammalian toxicology of pyrethrum extract. In: Casida JE, Quistad GB, eds. Pyrethrum flowers: Production, chemistry, toxicology, and uses. New York: Oxford University Press, 249-257.
- Schulz R, Dabrowski JM. 2001. Combined effects of predatory fish and sublethal pesticide contamination on the behavior and mortality of mayfly nymphs. *Environ Toxicol Chem* 20(11):2537-2543.
- Scott RC, Ramsey JD. 1987. Comparison of the in vivo and in vitro percutaneous absorption of a lipophilic molecule (cypermethrin), a pyrethroid insecticide. *J Invest Dermatol* 89:142-146.
- Sędrowicz L, Wikowska D, Olędzka R. 1996. Effect of chlorfenvinphos, cypermethrin and their mixture on the intestinal transport of leucine and methionine. *J Appl Toxicol* 16(6):483-489.
- *Setchell BP, Waites GMH. 1975. The blood-testis barrier. In: Creep RO, Astwood EB, Geiger SR, eds. Handbook of physiology: Endocrinology V. Washington, DC: American Physiological Society.
- *Shah PV, Fisher HL, Sumler MR, et al. 1987. Percutaneous absorption and pharmacokinetics of permethrin in young and adult rats. *Toxicology* 47:230-231.
- Shaker N, Hassan GA, El-Nouty FD, et al. 1988. *In vivo* chronic effect of dimethoate and deltamethrin on rabbits. *J Environ Sci Health B23(4):387-399*.
- Shakoori A, Ali SS, Saleem MA. 1988. Effects of cypermethrin on the blood and liver of albino rats. *J Biochem Toxicol* 3:59-71.
- *Shakoori AR, Aslam F, Sabir M, et al. 1992a. Effect of prolonged administration of insecticide (cyhalothrin/karate) on the blood and liver of rabbits. *Folia Biol* 40:91-99.
- Shakoori AR, Butt U, Riffat R, et al. 1992b. Toxic effects of short-term oral administration of danitol on the blood and liver of rabbits. *Punjab Univ J Zool* 7:13-26.
- Shan G, Stoutamire DW, Wengatz I, et al. 1999a. Development of an immunoassay for the pyrethroid insecticide esfenvalerate. *J Agric Food Chem* 47:2145-2155.
- Shan G, Wengatz I, Stoutamire DW, et al. 1999b. An enzyme-linked immunosorbent assay for the detection of esfenvalerate metabolites in human urine. *Chem Res Toxicol* 12(11):1033-1041.
- *Sharom MS, Solomon KR. 1981. Adsorption-desorption, degradation, and distribution of permethrin in aqueous systems. *J Agric Food Chem* 29:1122-1125.
- Shawky AS, Gomaa EA, Bakry H, et al. 1984. Mutagenicity and teratogenicity of the synthetic pyrethroid insecticide cypermethrin in albino rats. *Genetics* 107(3):S98.
- Sheets LP. 2000. A consideration of age-dependent differences in susceptibility to organophosphorus and pyrethroid insecticides. *Neurotoxicology* 2(1-2):57-64.

9. REFERENCES

- *Sheets LP, Doherty JD, Law MW, et al. 1994. Age-dependent differences in the susceptibility of rats to deltamethrin. *Toxicol Appl Pharmacol* 126:186-190.
- *Shiba K, Kaneko H, Kakuta N, et al. 1990. Placental transfer of esfenvalerate in pregnant rats. *J Pestic Sci* 15:169-174.
- *Shono T, Ohsawa K, Casida JE. 1979. Metabolism of *trans*- and *cis*-permethrin, *trans*- and *cis*-cypermethrin and decamethrin by microsomal enzymes. *J Agric Food Chem* 27(2):316-325.
- *Shujie W, Qinglang Z, Lan Y, et al. 1988. Health survey among farmers exposed to deltamethrin in the cotton fields. *Ecotoxicol Environ Saf* 15:1-6.
- *Shukla Y, Taneja P. 2000. Mutagenic evaluation of deltamethrin using rodent dominant lethal assay. *Mutat Res* 467:119-127.
- Shukla Y, Arora A, Singh A. 2001. Tumourigenic studies on deltamethrin in Swiss albino mice. *Toxicology* 163(1):1-9.
- Shukla Y, Yadav A, Arora A. 2002. Carcinogenic and cocarcinogenic potential of cypermethrin on mouse skin. *Cancer Lett* 182:33-41.
- Sidon EW, Moody RP, Franklin CA. 1988. Percutaneous absorption of *cis*- and *trans*-permethrin in Rhesus monkeys and rats: Anatomic site and interspecies variation. *J Toxicol Environ Health* 23:207-216.
- *Siebers J, Mattusch P. 1996. Determination of airborne residues in greenhouses after application of pesticides. *Chemosphere* 33(8):1597-1607.
- *Silver IS, Dauterman WC. 1989a. The pharmacokinetics and metabolism of (1R, *cis*)- and (1R, *trans*)-tetramethrin in rats. *Xenobiotica* 19(3):301-314.
- *Silver IS, Dauterman WC. 1989b. The toxicokinetics of (1R, *cis*)- and (1R, *trans*)-tetramethrin in the isolated perfused rat liver. *Xenobiotica* 19(5):509-519.
- *Simonaitis RA, Cail RS. 1975. Gas-liquid chromatographic determination of resmethrin in corn, cornmeal, flour, and wheat. *J Assoc Off Anal Chem Int* 58(5):1032-1036.
- Singh G, Sharma LD, Ahmad AH, et al. 1999. Fenvalerate induced dermal toxicity in buffalo calves. *J Appl Anim Res* 16:205-210.
- Siroki O, Institóris L, Tatar E, et al. 1994. Immunotoxicological investigation of SCMF, a new pyrethroid pesticide in mice. *Hum Exp Toxicol* 13:337-343.
- *Slameňová D, Dušinská M, Gábelová A, et al. 1992. An evaluation of three pesticides: Pirtione, supercypermethrin and metachlor in transformation bioassays of BHK21 and hamster embryo cells. *Cell Biol Toxicol* 8(4):217-231.
- Smith PA, Thompson MJ, Edwards JW. 2002. Estimating occupational exposure to the pyrethroid termiticide bifenthrin by measuring metabolites in urine. *J Chromatogr B Analyt Technol Biomed Life Sci* 778:113-120.

9. REFERENCES

- Smith S, Willis GH. 1987. Interaction of methyl parathion with permethrin and flucythrinate as related to their mutual persistence in soil. *Soil Sci* 144(1):67-71.
- *Smith S, Willis GH, Cooper CM. 1995. Cyfluthrin persistence in soil as affected by moisture, organic matter, and redox potential. *Bull Environ Contam Toxicol* 55:142-148.
- Smith TJ, Soderlund DM. 1998. Action of pyrethroid insecticide cypermethrin on rat brain IIA sodium channels expressed in *Xenopus oocytes*. *Neurotoxicology* 19(6):823-832.
- Smith TJ, Soderlund DM. 2001. Potent actions of the pyrethroid insecticides cismethrin and cypermethrin on rat tetrodotoxin-resistant peripheral nerve (SNS/PN3) sodium channels expressed in *Xenopus oocytes*. *Pestic Biochem Physiol* 70(1):52-61.
- *Soderlund DM. 1995. Mode of action of pyrethrins and pyrethroids. In: Casida JE, Quistad GB, eds. *Pyrethrum flowers: Production, chemistry, toxicology, and uses*. New York, NY: Oxford University Press, 217-233.
- Soderlund DM, Bloomquist JR. 1989. Neurotoxic actions of pyrethroid insecticides. *Annu Rev Entomol* 34:77-96.
- *Soderlund DM, Clark JM, Sheets LP, et al. 2002. Mechanisms of pyrethroid neurotoxicity: implications for cumulative risk assessment. *Toxicology* 171:3-59.
- Soderlund DM, Ghiasuddin SM, Helmuth DW. 1983. Receptor-like stereospecific binding of a pyrethroid insecticide to mouse brain membranes. *Life Sci* 33:261-267.
- Sogorb MA, Vilanova E. 2002. Enzymes involved in the detoxification of organophosphorus, carbamate and pyrethroid insecticides through hydrolysis. *Toxicol Lett* 128:215-228.
- *Song JH, Narahashi T. 1996. Modulation of sodium channels of rat cerebellar purkinje neurons by the pyrethroid tetramethrin. *J Pharmacol Exp Ther* 277(1):445-453.
- *Southwood J. 1984. Acute oral toxicity to the mouse. Imperial Chemical Industries PLC. OTS0545463.
- Spencer F, Berhane Z. 1982. Uterine and fetal characteristics in rats following a post-implantational exposure to permethrin. *Bull Environ Contam Toxicol* 29:84-88.
- *Spinosa HDS, Silva YMA, Nicolau AA, et al. 1999. Possible angiogenic effects of fenvalerate, a Type II pyrethroid pesticide, in rats. *Physiol Behav* 67(4):611-615.
- Spittler TD, Argauer RJ, Lisk DJ, et al. 1984. Gas chromatographic determination of fenvalerate insecticide residues in processed tomato products and by-products. *J Assoc Off Anal Chem* 67(4):824-826.
- Springfield AC, Carlson GP, DeFeo JJ. 1973. Liver enlargement and modification of hepatic microsomal drug metabolism in rats by pyrethrum. *Toxicol Appl Pharmacol* 24:298-308.
- *SRI. 2000. Directory of chemical producers. SRI International.

9. REFERENCES

- Staatz CG, Bloom AS, Lech JJ. 1980. A pharmacological analysis of mechanisms of permethrin neurotoxicity in mice. *Fed Proc Fed Am Soc Exp Biol* 39(3):624.
- Staatz CG, Bloom AS, Lech JJ. 1982. A pharmacological study of pyrethroid neurotoxicity in mice. *Pestic Biochem Physiol* 17:287-292.
- *Staiger LE, Quistad GB. 1984. Metabolism of [*benzyl-U-ring-¹⁴C] fluvalinate by rats. *J Agric Food Chem* 32:1130-1133.*
- Stein EA, Washburn M, Walczak C, et al. 1987. Effects of pyrethroid insecticides on operant responding maintained by food. *Neurotoxicol Teratol* 9:27-31.
- Stelzer KJ, Gordon MA. 1984. Effects of pyrethroids on lymphocyte mitogenic responsiveness. *Res Commun Chem Pathol Pharmacol* 46:137-150.
- *Stockis A, Bitar N, Rougeron C, et al. 1985. Fate of ¹⁴C-deltamethrin given orally in healthy volunteers. *Naunyn-Schmiedeberg Arch Pharmacol* 330:R13.
- Sukul P. 1995. Dissipation of deltamethrin and fenvalerate residues in green gram (*Vigna radiata* (L.) Wilczek) under Indian climatic condition. *Bull Environ Contam Toxicol* 55:562-567.
- *Sundaram KMS. 1991. Fate and short-term persistence of permethrin insecticide injected in a Northern Ontario (Canada) headwater stream. *Pestic Sci* 31:281-294.
- *Surrallés J, Carbonell E, Puig M, et al. 1990. Induction of mitotic micronuclei by the pyrethroid insecticide fenvalerate in cultured human lymphocytes. *Toxicol Lett* 54:151-155.
- *Surrallés J, Xamena N, Creus A, et al. 1995. Induction of micronuclei by five pyrethroid insecticides in whole-blood and isolated human lymphocyte cultures. *Mutat Res* 341:169-184.
- Suzuki T, Miyamoto J. 1974. Metabolism of tetramethrin in houseflies and rats *in vitro*. *Pestic Biochem Physiol* 4:86-97.
- Sylianco-Wu L, Kallman M, Wilson M, et al. 1990. Behavioral and neurochemical consequences of perinatal exposure to Type I and Type II pyrethroid formulations. *Neurotoxicol Teratol* 12(1):565-566.
- Szépölggyi J, Nagy K, Bedó M, et al. 1988. Examination of the interaction of decis and dithane in rats. *Toxicology* 53:107-111.
- Tabarean IV, Narahashi T. 2001. Kinetics of modulation of tetrodotoxin-sensitive and tetrodotoxin-resistant sodium channels by tetramethrin and deltamethrin. *J Pharmacol Exp Ther* 299(3):988-97.
- Takahashi M, Le Quesne PM. 1982. The effects of the pyrethroids deltamethrin and cismethrin on nerve excitability in rats. *J Neurol Neurosurg Psychiatry* 45:1005-1011.
- *Takahashi N, Mikami N, Matsuda T, et al. 1985a. Hydrolysis of the pyrethroid insecticide cypermethrin in aqueous media. *J Pestic Sci* 10:643-648.
- *Takahashi N, Mikami N, Yamada H, et al. 1985b. Hydrolysis of the pyrethroid insecticide fenprothrin in aqueous media. *Pestic Sci* 16:113-118.

9. REFERENCES

- *Takahashi N, Mikami N, Yamada H, et al. 1985c. Photodegradation of the pyrethroid insecticide fenpropathrin in water, on soil and on plant foliage. *Pestic Sci* 16:119-131.
- *Talts U, Fredriksson A, Eriksson P. 1998a. Changes in behavior and muscarinic receptor density after neonatal and adult exposure to bioallethrin. *Neurobiol Aging* 19(6):545-552.
- Talts U, Talts JF, Eriksson P. 1998b. Differential expression of muscarinic subtype mRNAs after exposure to neurotoxic pesticides. *Neurobiol Aging* 19(6):553-559.
- Tamang RK, Gupta G, Chauhan H, et al. 1988. In vivo immunosuppression by synthetic pyrethroid (cypermethrin) pesticide in mice and goats. *Vet Immunol Immunopathol* 19:299-305.
- Tanaka T, Moriwaki SI, Horio T. 1987. Occupational dermatitis with simultaneous immediate and delayed allergy to chrysanthemum. *Contact Dermatitis* 16:152-154.
- Tandon SK, Gupta PK. 1990. Pharmacological basis of cypermethrin neurotoxicity. *Indian Vet J* 67:21-24.
- *Tang JX, Siegfried BD. 1996. Bioconcentration and uptake of a pyrethroid and organophosphate insecticide by selected aquatic insects. *Bull Environ Contam Toxicol* 57:993-998.
- Tapase JS, Sharma SN, Singh SP. 1995a. Hematological alterations during experimental oral toxicity of fenvalerate in buffalo calves. *Indian Vet Med J* 19:239-243.
- Tapase JS, Sharma SN, Singh SP. 1995b. Pathology of fenvalerate toxicity in buffalo calves. *Indian J Agric Sci* 65(5):540-541.
- Tateno C, Ito S, Tanaka M, et al. 1993. Effects of pyrethroid insecticides on gap junctional intercellular communications in Balb/c3T3 cells by dye-transfer assay. *Cell Biol Toxicol* 9(3):215-221.
- Taylor P. 1979. Scabies in Zimbabwe Rhodesia: Distribution on the human body and the efficacy of lindane and permethrin as scabicides. *Cent Afr J Med* 25(8):165-168.
- Taylor WG, Vedres DD, Hall TW. 1997. Capillary gas chromatographic determination of permethrin insecticide by transesterification. *J Chromatogr B Biomed Sci Appl* 690:123-129.
- *Thapinta A, Hudak PF. 2000. Pesticide use and residual occurrence in Thailand. *Environ Monit Assess* 60:103-114.
- *Thyssen J. 1980. FCR 1272 subacute inhalational toxicity study on rats. Miles Inc. OTS0543768.
- *Tomigahara Y, Mori M, Shiba K, et al. 1994a. Metabolism of tetramethrin isomers in rat. I. Identification of a sulphonic acid type of conjugate and reduced metabolites. *Xenobiotica* 24(5):473-484.
- *Tomigahara Y, Mori M, Shiba K, et al. 1994b. Metabolism of tetramethrin isomers in rat: II. Identification and quantitation of metabolites. *Xenobiotica* 24(12):1205-1214.
- Tomigahara Y, Onogi M, Miki M, et al. 1996. Metabolism of tetramethrin isomers in rat. III. Stereochemistry of reduced metabolites. *Xenobiotica* 26(2):201-210.

9. REFERENCES

- Tomigahara Y, Onogi M, Saito K, et al. 1997. Metabolism of tetramethrin isomers in rat: IV. Tissues responsible for formation of reduced and hydrated metabolites. *Xenobiotica* 27(9):961-971.
- *Tomlin CDS. 1997. The pesticide manual - world compendium. 11th ed. Surrey, England: British Crop Protection Council.
- Trainer VL, McPhee JC, Boutelet-Bochan H, et al. 1997. High affinity binding of pyrethroids to the α subunit of brain subunit channels. *Mol Pharmacol* 51:651-657.
- Trainer VL, Moreau E, Guedin D, et al. 1993. Neurotoxin binding and allosteric modulation at receptor sites 2 and 5 on purified and reconstituted rat brain sodium channels. *J Biol Chem* 268(23):17114-17119.
- *TRI99. 2001. TRI explorer: Providing access to EPA's toxics release inventory data. Washington, DC: Office of Information Analysis and Access. Offices of Environmental Information. U.S. Environmental Protection Agency. Toxic Release Inventory. <http://www.epa.gov/triexplorer/>. April 26, 2001.
- *Tsuji R, Kobayashi K, Ikeda M, et al. 2002. Lack of changes in brain muscarinic receptor and motor activity of mice after neonatal inhalation exposure to *d*-allethrin. *J Appl Toxicol* 22:423-429.
- Tsuji R, Isobe N, Kawasaki H. 1996. Effect of pyrethroids on pentobarbital-induced sleeping time in relation to the chemical structure. *Toxicology* 106:131-137.
- *Tucker SB, Flannigan SA. 1983. Cutaneous effects from occupational exposure to fenvalerate. *Arch Toxicol* 54:195-202.
- *Tucker SB, Flannigan SA, Ross CE. 1984. Inhibition of cutaneous paresthesia resulting from synthetic pyrethroid exposure. *Int J Dermatol* 23(10):686-689.
- Tulinská J, Kubová J, Janota S, et al. 1995. Investigation of immunotoxicity of supercypermethrin forte in the Wistar rat. *Hum Exp Toxicol* 14:399-403.
- Ueda A, Aoyama K, Manda F, et al. 1994. Delayed-type allergenicity of triforine (Saprol). *Contact Dermatitis* 31:140-145.
- *Ueda K, Gaughan C, Casida JE. 1974. Photodecomposition of resmethrin and related pyrethroids. *J Agric Food Chem* 22(2):212-220.
- *Ueda K, Gaughan C, Casida JE. 1975a. Metabolism of four resmethrin isomers by liver microsomes. *Pestic Biochem Physiol* 5:280-294.
- *Ueda K, Gaughan LC, Casida JE. 1975b. Metabolism of (+)-*trans*- and (+)-*cis*-resmethrin in rats. *J Agric Food Chem* 23(1):106-115.
- *USDA. 2001a. ARS Pesticide properties database. U.S. Department of Agriculture. <http://wizard.arsusda.gov/acsl/textfiles/PYRETHRINS>. February 8, 2001.
- *USDA. 2001b. Labeling treated seed. U.S. Department of Agriculture. Code of Federal Regulations. 7 CFR 201.31a. <http://www4.law.cornell.edu/cfr/7p201.htm>. April 19, 2001.

9. REFERENCES

- *USGS. 2001. USGS pesticide national synthesis project. U.S. Geological Survey. <http://ca.water.usgs.gov/pnsp/use/92/cyfluthrn.html>. March 21, 2001.
- Vaccari A, Ruiu S, Mocci I, et al. 1998. Selected pyrethroid insecticides stimulate glutamate uptake in brain synaptic vesicles. *NeuroReport* 9:3519-3523.
- Vais H, Atkinson S, Eldursi N, et al. 2000. A single amino acid change makes a rat neuronal sodium channel highly sensitive to pyrethroid insecticides. *FEBS Lett* 470:135-138.
- *Valentine WM. 1990. Pyrethrin and pyrethroid insecticides. *Vet Clin North Am Small Anim Pract* 20(2):375-382.
- *Vandenplas O, Delwiche JP, Auverdin J, et al. 2000. Asthma to tetramethrin. *Allergy* 55:418-419.
- *van der Rhee HJ, Farquhar JA, Vermeulen NPE. 1989. Efficacy and transdermal absorption of permethrin in scabies patients. *Acta Derm Venereol (Stockh)* 69:170-182.
- Van Haaren F, Cody B, Hoy JB, et al. 2000. The effects of pyridostigmine bromide and permethrin, alone or in combination, on response acquisition in male and female rats. *Pharmacol Biochem Behav* 66(4):739-746.
- *Varshneya C, Singh T, Sharma LD, et al. 1992. Immunotoxic responses of cypermethrin, a synthetic pyrethroid insecticide in rats. *Indian J Physiol Pharmacol* 36(2):123-126.
- Venant A, Belli P, Borrel S, et al. 1990. Excretion of deltamethrin in lactating dairy cows. *Food Addit Contam* 7(4):535-543.
- *Verschoyle RD, Aldridge WN. 1980. Structure-activity relationships of some pyrethroids in rats. *Arch Toxicol* 45:325-329.
- Verschoyle RD, Barnes JM. 1972. Toxicity of natural and synthetic pyrethrins to rats. *Pestic Biochem Physiol* 2:308-311.
- *Viera I, Sonnier M, Cresteil T. 1996. Developmental expression of CYP2E1 in the human liver: Hypermethylation control of gene expression during the neonatal period. *Eur J Biochem* 238:476-483.
- Vijverberg HPM, de Weille JR. 1985. The interaction of pyrethroids with voltage-dependent Na channels. *Neurotoxicology* 6(2):23-34.
- *Vijverberg HPM, van den Bercken J. 1982. Action of pyrethroid insecticides on the vertebrate nervous system. *Neuropathol Appl Neurobiol* 8:421-440.
- *Vijverberg HPM, van den Bercken J. 1990. Neurotoxicological effects and the mode of action of pyrethroid insecticides. *Crit Rev Toxicol* 21(2):105-126.
- *Vijverberg HPM, van der Zalm JM, van Kleef RGD, et al. 1983. Temperature- and structure-dependent interaction of pyrethroids with the sodium channels in frog node of Ranvier. *Biochim Biophys Acta* 728:73.

9. REFERENCES

- *Vijverberg HPM, de Weille JR, Ruigt GSF, et al. 1986. The effect of pyrethroid structure on the interaction with the sodium channel in the nerve membrane. In: Ford MG, Lunt GG, Reay RC, et al., eds. Neuropharmacology and pesticide action. Deerfield Beach, FL: VCH, 267-285.
- *Villarini M, Moretti M, Pasquini R, et al. 1998. In vitro genotoxic effects of the insecticide deltamethrin in human peripheral blood leukocytes: DNA damage ('comet' assay) in relation to the induction of sister-chromatid exchanges and micronuclei. Toxicology 130:129-139.
- Villarini M, Moretti M, Scassellati-Sforzolini G, et al. 1995. Studies on hepatic xenobiotic-metabolizing enzymes in rats treated with insecticide deltamethrin. J Environ Pathol Toxicol Oncol 14(1):45-52.
- *Vlčková V. 1991. Mutagenic activity of supercypermethrin applied to yeast *Saccharomyces cerevisiae* D7. Acta Fac Rerum Nat Univ Comeniana, Genet Biol Mol 25:25-31.
- Wagner SL. 1994. Allergy from pyrethrin of pyrethroid insecticides. J Agromed 1:39-45.
- *Wagner SL. 2000. Fatal asthma in a child after use of an animal shampoo containing pyrethrin. West J Med 173:86-87.
- Waite DT, Grover R, Westcott ND, et al. 1995. Atmospheric deposition of pesticide in a small southern Saskatchewan watershed. Environ Toxicol Chem 14(7):1171-1175.
- Wallace KB. 2002. Mechanisms of pyrethroid neurotoxicity: implications for cumulative risk assessment. Toxicology 171:1.
- *Wan H. 1990. Pesticide exposure of applicators working in tea plantations. Bull Environ Contam Toxicol 45:459-462.
- Wärngård L, Flodström S. 1989. Effects of tetradecanoyl phorbol acetate, pyrethroids and DDT in the V79. Cell Biol Toxicol 5(1):67-75.
- *Wax PM, Hoffman RS. 1994. Fatality associated with inhalation of a pyrethrin shampoo. Clin Toxicol 32(4):457-460.
- Wax PM, Hoffman RS, Goldfrank LR. 1991. Fatality associated with inhalation of a pyrethrin insecticide [Abstract]. Vet Hum Toxicol 33(4):363.
- Wenclawiak B, Otterbach A. 2000. Carbon-based quantitation of pyrethrins by supercritical-fluid chromatography. J Biochem Biophys Meth 43:197-207.
- *West JR, Smith HW, Chasi H. 1948. Glomerular filtration rate, effective renal blood flow, and maximal tubular excretory capacity in infancy. J Pediatr 32:10-18.
- Wester RC, Bucks DAW, Maibach HI. 1994. Human *in vivo* percutaneous absorption of pyrethrin and piperonyl butoxide. Food Chem Toxicol 32(1):51-53.
- *White INH, Verschoyle RD, Moradian MH, et al. 1976. The relationship between brain levels of cismethrin and bioresmethrin in female rats and neurotoxic effects. Pestic Biochem Physiol 6:491-500.
- *Whittem T. 1995. Pyrethrin and pyrethroid insecticide intoxication in cats. Compend Contin Edu Pract Vet 17(4):489-492.

9. REFERENCES

- *WHO. 1990a. Cyhalothrin. Environmental Health Criteria 99. Geneva: World Health Organization.
- *WHO. 1990b. Fenvalerate. Environmental Health Criteria 95. Geneva: World Health Organization.
- *WHO. 1990c. Permethrin. Environmental Health Criteria 94. Geneva: World Health Organization.
- *WHO. 2001. Guidelines for drinking water quality. World Health Organization. <http://www.who.int/>. April 19, 2001.
- *Widdowson EM, Dickerson JWT. 1964. Chemical composition of the body. In: Comar CL, Bronner F, eds. Mineral metabolism: An advanced treatise. Volume II: The elements Part A. New York: Academic Press.
- Wieseler B, Kühn K-H, Leng G, et al. 1998. Effects of pyrethroid insecticides on pest control operators. *Bull Environ Contam Toxicol* 60:837-844.
- *Wilkes MF. 2000. Pyrethroid-induced paresthesia- a central or local toxic effect? *Clin Toxicol* 38(2):103-105.
- Wilkes MF, Woollen BH, Marsh JR, et al. 1993. Biological monitoring for pesticide exposure- the role of human volunteer studies. *Int Arch Occup Environ Health* 65:S189-S192.
- Williams CH. 1973. Tests for possible teratogenic carcinogenic, mutagenic, and allergenic effects of pyrethrum. In: Casida JE, ed. *Pyrethrum: The natural insecticide*. London, England: Academic Press, 167-176.
- Williamson EG, Long SF, Kallman MJ, et al. 1989. A comparative analysis of the acute toxicity of technical-grade pyrethroid insecticides and their commercial formulations. *Ecotoxicol Environ Saf* 18:27-34.
- *Wintersteiger R, Ofner B, Juan H, et al. 1994. Determination of traces of pyrethrins and piperonyl butoxide in biological material by high-performance liquid chromatography. *J Chromatogr* 660:205-210.
- Woodrow JE, Seiber JN. 1997. Correlation techniques for estimating pesticide volatilization flux and downwind concentrations. *Environ Sci Technol* 31:523-529.
- *Woollen BH. 1993. Biological monitoring for pesticide absorption. *Ann Occup Hyg* 37:525-540.
- *Woollen BH, Marsh JR, Laird WJD, et al. 1992. The metabolism of cypermethrin in man: Differences in urinary metabolite profiles following oral and dermal administration. *Xenobiotica* 22(8):983-991.
- *Wright CDP, Forshaw PJ, Ray DE. 1988. Classification of the actions of the ten pyrethroid insecticides in the rat, using the trigeminal reflex and skeletal muscle as test systems. *Pestic Biochem Physiol* 30:79-86.
- *Wright CG, Leidy RB, Dupree HE. 1993. Cypermethrin in the ambient air and on surfaces of rooms treated for cockroaches. *Bull Environ Contam Toxicol* 51:356-360.
- *Wright CG, Leidy RB, Dupree HE. 1996. Insecticide residues in the ambient air of commercial pest control buildings, 1993. *Bull Environ Contam Toxicol* 56:21-28.

9. REFERENCES

- *Wszolek PC, Hogue DE, Lisk DJ. 1981a. Accumulation of fenvalerate insecticide in lamb tissues. *Bull Environ Contam Toxicol* 27:869-871.
- *Wszolek PC, LaFauce NA, Wachs T, et al. 1981b. Studies of possible bovine urinary excretion and rumen decomposition of fenvalerate insecticide and a metabolite. *Bull Environ Contam Toxicol* 26:262-266.
- *Wszolek PC, Lein DH, Lisk DJ. 1980. Excretion of fenvalerate insecticide in the milk of dairy cows. *Bull Environ Contam Toxicol* 24:296-298.
- Wu A, Liu Y. 2000. Apoptotic cell death in rat brain following deltamethrin treatment. *Neurosci Lett* 279:85-88.
- Wu A, Ren T, Hu Q, et al. 2000. Deltamethrin induces altered expression of P53, Bax and Bcl-2 in rat brain. *Neurosci Lett* 284:29-32.
- *Yamamoto D, Yeh JZ, Narahashi T. 1986. Ion permeation and selectivity of squid axon sodium channels modified by tetramethrin. *Brain Res* 372:193-197.
- Yamamoto I, Elliott M, Casida JE. 1971. The metabolic fate of pyrethrin I, pyrethrin II, and allethrin. *Bull WHO* 44:347-348.
- *Yao PP, Li YW, Ding YZ, et al. 1992. Biological monitoring of deltamethrin in sprayers by HPLC method. *J Hyg Epidemiol Microbiol Immunol* 36(1):31-36.
- Yarsan E, Bilgili A, Kanbur M, et al. 2002. Effects of deltamethrin on lipid peroxidation in mice. *Vet Hum Toxicol* 44(2):73-5.
- *Yasin M, Baugh PJ, Bonwick GA, et al. 1996. Analytical method development for the determination of synthetic pyrethroid insecticides in soil by gas chromatography-mass spectrometry operated in negative-ion chemical-ionization mode. *J Chromatogr* 754:235-243.
- Yess NJ. 1993. U.S. Food and Drug Administration survey of methyl mercury in canned tuna. *J Assoc Off Anal Chem Int* 76(1):36-38.
- *Yi-Qun W, Xiao-Yen G, Chun-Ling L. 1994. Determination of pyrethroids in human urine by gas chromatography. *Biomed Environ Sci* 7:216-221.
- Yomamoto D, Quandt FN, Narahashi T. 1983. Modification of single sodium channels by the insecticide tetramethrin. *Brain Res* 274:344-349.
- *Yoshida K, Antal A, Fuzesi I, et al. 1990. Characteristics of applicator exposure to synthetic pyrethroid in ULV-handheld and ULV-ULA spray applications. *J Environ Sci Health B25(2)* 151-167.
- Younis HM, Hamid NA, El-Saad MMA, et al. 2000. Alterations by the respiratory protein complexes of rat heart mitochondria induced by the insecticide fenvalerate. *Biochem Soc Trans* 28(5):A191.
- *Zhang L, Khan S, Akhtar M, et al. 1984. Persistence, degradation, and distribution of deltamethrin in an organic soil under laboratory conditions. *J Agric Food Chem* 32(6):1207-1211.

9. REFERENCES

*Zhang Z, Sun J, Chen S, et al. 1991. Levels of exposure and biological monitoring of pyrethroids in spraymen. *Br J Ind Med* 48:82-86.

*Ziegler EE, Edwards BB, Jensen RL, et al. 1978. Absorption and retention of lead by infants. *Pediatr Res* 12:29-34.

Zucker A. 1965. Investigation of purified pyrethrum extracts. *Ann Allergy* 23:335-339.

