

8. REFERENCES

3M Company. 1985. Organic vapor method no. 4D. 3M Company Occupational Health and Safety Products Laboratory. May 1985.

*Aaron CK, Howland MA. 1994. Goldfrank's Toxicological emergencies. Norwalk, CT: Appleton and Lange.

Abbott FV, Franklin KB, Libman RB. 1986. A dose-ratio comparison of Mu and Kappa agonists in formalin and thermal pain. *Life Sci* 39:2017-2024.

Abbott FV, Hong Y, Blier P. 1997. Persisting sensitization of the behavioural response to formalin-induced injury in the rat through activation of serotonin_{2A} receptors. *Neuroscience* 77:575-584.

*ACGIH. 1992. Threshold limit values for chemical substances and physical agents and biological exposure indices. American Conference of Governmental Industrial Hygienists. Cincinnati, OH.

ACGIH. 1995. 1995-1996 Threshold limit values for chemical substances and physical agents and biological exposure indices. American Conference of Governmental Industrial Hygienists. Cincinnati, OH.

*ACGIH. 1998. Threshold limit values for chemical substances and physical agents and biological exposure indices. American Conference of Governmental Industrial Hygienists. Cincinnati, OH.

*Acheson ED, Barnes HR, Gardner MJ, et al. 1984a. Formaldehyde process workers and lung cancer. *Lancet* 1:1066-1067.

Acheson ED, Gardner MJ, Pannett B, et al. 1984b. Formaldehyde in the British chemical industry. *Lancet* 1:611-616.

*Adams DO, Hamilton TA, Lauer LD, et al. 1987. The effect of formaldehyde exposure upon the mononuclear phagocyte system of mice. *Toxicol Appl Pharmacol* 88:165-174.

Adams RM, Maibach HI. 1985. A five-year study of cosmetic reactions. *J Am Acad Dermatol* 13:1062-1069.

*Adinolfi M. 1985. The development of the human blood-CSF-brain barrier. *Dev Med Child Neurol* 27:532-537.

Addy M, Mostafa P. 1988. Dentine hypersensitivity. I. Effects produced by the uptake *in vitro* of metal ions, fluoride and formaldehyde onto dentine. *J Oral Rehab* 15:575-585.

*Akbar-Khanzadeh F, Mlynek JS. 1997. Changes in respiratory function after one and three hours of exposure to formaldehyde in non-smoking subjects. *Occup Environ Med* 24:296-300.

*Cited in text

8. REFERENCES

- *Akbar-Khanzadeh F, Vaquerano MU, Akbar-Khanzadeh M, et al. 1994. Formaldehyde exposure, acute pulmonary response, and exposure control options in a gross anatomy laboratory. *Am J Ind Med* 26:61-75.
- Akubue PI, Stohs SJ. 1993. Effect of alachlor on the urinary excretion of malondialdehyde, formaldehyde, acetaldehyde, and acetone by rats. *Bull Environ Contam Toxicol* 50:565-571.
- Akubue PI, Bagchi D, Ihm WJ, et al. 1994. Excretion of malondialdehyde, formaldehyde, acetaldehyde, acetone and methyl ethyl ketone in the urine of rats given an acute dose of malondialdehyde. *Arch Toxicol* 68:338-341.
- *Albert RE, Sellakumar AR, Laskin S, et al. 1982. Gaseous formaldehyde and hydrogen chloride induction of nasal cancer in the rat. *J Natl Cancer Inst* 68:597-603.
- Alderson T. 1985. Formaldehyde-induced mutagenesis: a novel mechanism for its action. *Mutat Res* 154:101-110.
- *Alexandersson R, Hedenstierna G. 1988. Respiratory hazards associated with exposure to formaldehyde and solvents in acid-curing paints. *Arch Environ Health* 43:222-227.
- *Alexandersson R, Hedenstierna G. 1989. Pulmonary function in wood workers exposed to formaldehyde: A prospective study. *Arch Environ Health* 44:5-11.
- Alfheim JA, Langford CH. 1985. Determination of formaldehyde with the thermal lens effect. *Anal Chem* 57:861-864.
- Allredge AL, Elias M, Gotschalk CC. 1986. Effects of drilling muds and mud additives on the primary production of natural assemblages of marine phytoplankton. *Mar Environ Res* 19:157-176.
- Aloisi AM, Zimmermann M, Herdegen T. 1997. Sex-dependent effects of formalin and restraint on C-Fos expression in the septum and hippocampus of the rat. *Neuroscience* 81:951-958.
- *Altman PK, 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.
- *Altshuller AP. 1993. Production of aldehydes as primary emissions and from secondary atmospheric reactions of alkenes and alkanes during the night and early morning hours. *Atmos Environ* 27:21-32.
- *Amdur MO. 1960. The response of guinea pigs to inhalation of formaldehyde and formic acid alone and with a sodium chloride aerosol. *Int J Air Pollut* 3:201-220.
- Ancona-Alayon A, Jimenez-Castilla JL, Gomez-Alvarez EM. 1976. Dermatitis from epoxy resin and formaldehyde in shampoo packers. *Contact Dermatitis* 2:356-364.
- Andersen I. 1986. Effects of airborne substances on nasal function in human volunteers. In: Barrow CS, ed. *Toxicology of the nasal passages*. Washington, DC: Hemisphere Publishing Corporation, 143-154.
- *Andersen I, Molhave L. 1983. Controlled human studies with formaldehyde. In: Gibson JE, ed. *Formaldehyde toxicity*. Washington, DC: Hemisphere Publishing Corporation, 154-165.

8. REFERENCES

- *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, replacement*. New York: Marcel Dekker, Inc., 9-25.
- *Andersen ME, Clewell HJ 3rd, Gargas ML, et al. 1987. Physiologically based pharmacokinetics and the risk assessment process for methylene chloride. *Toxicol Appl Pharmacol* 87:185-205.
- *Andjelkovich AA, Mathew RM, Richardson RB, et al. 1990. Mortality of iron foundry workers: I. Overall findings. *J Occup Med* 32:529-540.
- Andjelkovich DA, Levine RJ. 1988. Identification of an industrial cohort and verification of its completeness using a complicated system of plant records. *Am J Ind Med* 13:593-599.
- *Andjelkovich DA, Janszen DB, Brown MH, et al. 1995a. Mortality of iron foundry workers: IV. Analysis of a subcohort exposed to formaldehyde. *J Occup Environ Med* 37:826-837.
- Andjelkovich DA, Janszen DB, Conolly RB, et al. 1995b. Formaldehyde exposure not associated with cancer of the respiratory tract in iron foundry workers: A synopsis of CIIT epidemiologic findings. *CIIT Act* 15:1-9.
- Andjelkovich DA, Mathew RM, Levine RJ. 1994a. Letters to the Editor. *J Occup Med* 36:468.
- Andjelkovich DA, Mathew RM, Yu RC, et al. 1992. Mortality of iron foundry workers. II. Analysis by work area. *J Occup Med* 34:391-401.
- *Andjelkovich DA, Shy CM, Brown MH, et al. 1994b. Mortality of iron foundry workers. III. Lung cancer case-control study. *J Occup Med* 36:1301-1308.
- Ang CC, Lipari F, Swarin SJ. 1987. Determination of hydroxymethanesulfonate in wet deposition samples. *Environ Sci Technol* 21:102-105.
- Anonymous. 1982. Report of the federal panel of formaldehyde. *Environ Health Perspect* 43:139-168.
- *Anonymous. 1984a. Report on the consensus workshop on formaldehyde. *Environ Health Perspect* 58:323-381.
- Anonymous. 1984b. Final report on the safety assessment of formaldehyde. *J Am Coll Toxicol* 3:157-184.
- Anonymous. 1984c. No title available. *Chem Eng News* 62: 13, 17-20.
- *Anonymous. 1992. Production by the U.S. Chemical Industry: Chemical production held steady in 1991. *Chem Eng News* 70:34-40.
- *Anonymous. 1993. Formaldehyde [Abstract]. *Chem Ind News* November-December 1993:8.
- *Anonymous. 1994. Production by the U.S. Chemical Industry: Growth continues in chemical production. *Chem Eng News* 72:30-36.
- *Anonymous. 1995a. Production by the U.S. Chemical Industry: Production soared in most chemical sectors. *Chem Eng News* 73:36-42.

8. REFERENCES

- *Anonymous. 1995b. Formaldehyde. Chem Mark Rep September 11, 1995:39-41.
- *Anonymous. 1998. Formaldehyde. Chem Mark Rep June 22, 1998:49.
- Apfelbach R, Reibenspies M. 1991. Olfactory learning is inhibited after low-level formaldehyde gas exposure in the ferret [Abstract]. Chem Senses 16:498.
- Apfelbach R, Weiler E. 1991. Sensitivity to odors in Wistar rats is reduced after low-level formaldehyde-gas exposure. Naturwissenschaften 78:221-223.
- Apfelbach R, Reibenspies M, Schmidt R. 1992. The effect of long-lasting formaldehyde gas exposure on the olfactory epithelium and on the olfactory discrimination ability in the ferret [Abstract]. Chem Senses 17:590-591.
- *Appelman LM, Woutersen RA, Zwart A, et al. 1988. One-year inhalation toxicity study of formaldehyde in male rats with a damaged or undamaged nasal mucosa. J Appl Toxicol 8:85-90.
- *Arnts RR, Tejada SB. 1989. 2,4-Dinitrophenylhydrazine-coated silica gel cartridge method for determination of formaldehyde in air: Identification of an ozone interference. Environ Sci Technol 23:1428-1430.
- Arts JHE, Dröge SCM, Spanhaak S, et al. 1997. Local lymph node activation and IgE responses in brown Norway and Wistar rats after dermal application of sensitizing and non-sensitizing chemicals. Toxicology 117:229-237.
- Ashby J, Lefevre P. 1983. Genetic toxicology studies with formaldehyde and closely related chemicals including hexamethylphosphoramide (HMPA). In: Gibson JE, ed. Formaldehyde toxicity. Washington, DC: Hemisphere Publishing Corporation, 85-97.
- Ashby J, Callander RC, Rose FL. 1985. Weak mutagenicity to salmonella of the formaldehyde-releasing anti-tumour agent hexamethylmelamine. Mutat Res 142:121-125.
- *ASTER. 1995. ASTER (Assessment Tools for the Evaluation of Risk) ecotoxicity profile. Duluth, MN: Environmental Research Laboratory, U.S. Environmental Protection Agency.
- *ASTER. 1996. ASTER (Assessment Tools for the Evaluation of Risk) ecotoxicity profile. Duluth, MN: Environmental Research Laboratory, U.S. Environmental Protection Agency.
- *Atkinson R, Pitts JNJ. 1978. Kinetics of the reactions of the OH radical with HCHO and CH₃CHO over the temperature range 299-426 K. J Chem Phys 68:3581-3584.
- *Atkinson R, Plum CN, Carter WPL, et al. 1984. Rate constants for the gas-phase reactions of nitrate radicals with a series of organics in air at 298 +/- 1 K. J Phys Chem 88:1210-1215.
- *ATSDR. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles; Notice. Federal Register 54:37617-37634.
- ATSDR. 1990. Biomarkers of organ damage or dysfunction for the renal, hepatobiliary, and immune systems. Subcommittee on Biomarkers of Organ Damage and Dysfunction, Agency for Toxic Substances and Disease Registry, Atlanta, GA.

8. REFERENCES

- Babiuk C, Steinhagen WH, Barrow CS. 1985. Sensory irritation response to inhaled aldehydes after formaldehyde pretreatment. *Toxicol Appl Pharmacol* 79:143-149.
- *Bach B, Pedersen OF, Molhave LI. 1990. Human performance during experimental formaldehyde exposure. *Environ Int* 16:105-113.
- Baez AP, Padilla HG, Belmont RD. 1993. Scavenging of atmospheric formaldehyde by wet precipitation. *Environ Pollut* 79:271-275.
- Bagchi D, Bagchi M, Hassoun E, et al. 1993a. Effects of carbon tetrachloride, menadione, and paraquat on the urinary excretion of malondialdehyde, formaldehyde, acetaldehyde, and acetone in rats. *J Biochem Toxicol* 8:101-106.
- Bagchi D, Bagchi M, Hassoun E, et al. 1993b. Carbon-tetrachloride-induced urinary excretion of formaldehyde, malondialdehyde, acetaldehyde and acetone in rats. *Pharmacology* 47:209-216.
- Bagchi DE, Stohs SJB M. 1992. Endrin-induced urinary excretion of formaldehyde, acetaldehyde, malondialdehyde and acetone in rats. *Toxicology* 75:81-89.
- *Ballarin C, Sarto F, Giacomelli L, et al. 1992. Micronucleated cells in nasal mucosa of formaldehyde-exposed workers. *Mutat Res* 280:1-7.
- *Balmat JL, Meadows GW. 1985. Monitoring of formaldehyde in air. *Am Ind Hyg Assoc J* 46:578-584.
- Band PR, Le ND, Fang R, et al. 1997. Cohort mortality study of pulp and paper mill workers in British Columbia, Canada. *Am J Epidemiol* 146:186-194.
- Banky Z, Nagy GM, Halasz B. 1994. Analysis of pituitary prolactin and adrenocortical response to ether, formalin or restraint in lactating rats: Rise in corticosterone, but no increase in plasma prolactin levels after exposure to stress. *Neuroendocrinology* 59:63-71.
- Bardana EJ, Montanaro A. 1991. Formaldehyde: an analysis of its respiratory, cutaneous, and immunologic effects. *Ann Allergy* 66:441-452.
- *Barnes DG, Dourson M. 1988. Reference dose (RfD) description and use in health risk assessments. *Regul Toxicol Pharmacol* 8:471-486.
- *Barry JL, Tome D. 1991. Formaldehyde content of milk in goats fed formaldehyde-treated soybean oil-meal. *Food Addit Contam* 8:633-640.
- *Bartnik FG, Gloxhuber C, Zimmermann V. 1985. Percutaneous absorption of formaldehyde in rats. *Toxicol Lett* 25:167-172.
- Bartone NF, Grieco RV, Herr BS. 1968. Corrosive gastritis due to ingestion of formaldehyde. *JAMA, J Am Med Assoc* 203:104-105.
- *Barzana E, Klibanov AM, Karel M. 1989. A colorimetric method for the enzymatic analysis of gases: The determination of ethanol and formaldehyde vapors using solid alcohol oxidase. *Anal Biochem* 182:109-115.

8. REFERENCES

- *Basler A, Hude VD, Hude W, et al. 1985. Formaldehyde-induced sister chromatid exchanges in vitro and the influence of the exogenous metabolizing systems S9 mix and primary rat hepatocytes. *Arch Toxicol* 58:10-13.
- Bauchinger M, Schmid E. 1985. Cytogenetic effects in lymphocytes of formaldehyde workers of a paper factory. *Mutat Res* 58:195-199.
- *Baumann K, Angerer J. 1979. Occupational chronic exposure to organic solvents. VI. Formic acid concentration in blood and urine as an indicator of methanol exposure. *Int Arch Occup Environ Health* 42:241-249.
- Beall JE. 1985. Formaldehyde in dialysis patients: A review. *Adv Chem Ser* 210:276-286.
- Becking GC. 1995. Use of mechanistic information in risk assessment for toxic chemicals. *Toxicol Lett* 7:15-24.
- *Bedford P, Fox BW. 1981. The role of formaldehyde in methylene dimethanesulphonate-induced DNA cross-links and its relevance to cytotoxicity. *Chem Biol Interact* 38:119-126.
- *Bender JR, Mullin LS, Graepel GJ, et al. 1983. Eye irritation response of humans to formaldehyde. *Am Ind Hyg Assoc J* 44:463-465.
- *Benner WH, Bizjak M. 1988. Pseudo first-order reaction rate constant for the formation of hydroxymethylhydroperoxide from formaldehyde and hydrogen peroxide. *Atmos Environ* 22:2603-2605.
- Benyajati C, Place AR, Sofer W. 1983. Formaldehyde mutagenesis in *Drosophila*: Molecular analysis of ADH-negative mutants. *Mutat Res* 11:1-7.
- Berglund B, Nordin S. 1992. Detectability and perceived intensity for formaldehyde in smokers and non-smokers. *Chem Senses* 17:291-306.
- Berke JH. 1987. Cytologic examination of the nasal mucosa in formaldehyde-exposed workers. *J Occup Med* 29:681-684.
- Bermudez E. 1986. Assessment of genotoxic effects in rat nasal epithelium. In: Barrow CS, ed. *Toxicology of the nasal passages*. Washington, DC: Hemisphere Publishing Corporation, 275-290.
- Bermudez E, Craft TR. 1987. Correlation of DNA-protein crosslinks (DPC) with cytotoxicity and mutagenicity in formaldehyde (HCHO) treated human lymphoblasts [Abstract]. *Environ Mutagen* 9:14.
- Bermudez E, Chen Z, Gross EA, et al. 1994. Characterization of cell lines derived from formaldehyde-induced nasal tumors in rats. *Mol Carcinog* 9:193-199.
- Bernstein RS, Stayner LT, Elliott LJ, et al. 1984. Inhalation exposure to formaldehyde: An overview of its toxicology, epidemiology, monitoring, and control. *Am Ind Hyg Assoc J* 45:778-785.
- *Bertazzi PA, Pesatori A, Guercilena S, et al. 1989. Rischio cancerogeno per i produttori di resine esposti a formaldeide: Estensione del follow-up. *Med Lav* 80:111-122. (Italian)
- *Bertazzi PA, Pesatori AC, Radice L, et al. 1986. Exposure to formaldehyde and cancer mortality in a cohort of workers producing resins. *Scand J Work Environ Health* 12:461-468.

8. REFERENCES

- Betterton EA, Hoffmann MR. 1988. Henry's law constants of some environmentally important aldehydes. *Environ Sci Technol* 22:1415-1418.
- *Bhalla DK, Mahavni V, Nguyen T, et al. 1991. Effects of acute exposure to formaldehyde on surface morphology of nasal epithelia in rats. *J Toxicol Environ Health* 33:171-188.
- Bhatt HS, Lober SB, Combes B. 1988. Effect of glutathione depletion on aminopyrine and formaldehyde metabolism. *Biochem Pharmacol* 37:1581-1589.
- Bhatt HV, Panchal GM. 1992. Behavioral change in rats due to chronic oral and systemic formaldehyde. *Indian J Physiol Pharmacol* 36:270-272.
- *Bhattacharya SK, Parkin GF. 1988. Fate and effect of methylene chloride and formaldehyde in methane fermentation systems. *J Water Pollut Control Fed* 60:531-536.
- Biagini RE, Moorman WJ, Knecht EA, et al. 1989. Acute airway narrowing in monkeys from challenge with 2.5 ppm formaldehyde generated from formalin. *Arch Environ Health* 44:12-17.
- Bille H. 1981. [Formaldehyde in textile finishing - Is it necessary?]. *Melliand Textilber* 10:811-817. (German)
- Binding N, Witting U. 1990. Exposure to formaldehyde and glutardialdehyde in operating theatres. *Int Arch Occup Environ Health* 62:233-238.
- *Blackburn GR, Dooley JF, Schreiner CA. 1991. Specific identification of formaldehyde mediated mutagenicity using the mouse lymphoma L5178Y TK +/- assay supplemented with formaldehyde dehydrogenase. *In Vitro Toxicol* 4:121-132.
- Blackwell M, Kang H, Thomas A, et al. 1981. Formaldehyde: Evidence of carcinogenicity. *Am Ind Hyg Assoc J* 42:34-46.
- Blair A, Stewart PA. 1990. Correlation between different measures of occupational exposure to formaldehyde. *Am J Epidemiol* 131:510-516.
- *Blair A, Saracci R, Stewart PA, et al. 1990a. Epidemiologic evidence on the relationship between formaldehyde exposure and cancer. *Scand J Work Environ Health* 16:381-393.
- *Blair A, Stewart P, O'Berg M, et al. 1986. Mortality among industrial workers exposed to formaldehyde. *J Natl Cancer Inst* 76:1071-1084.
- *Blair A, Stewart PA, Hoover RN. 1990b. Mortality from lung cancer among workers employed in formaldehyde industries. *Am J Ind Med* 17:683-700.
- Boeniger MF. 1987. Formate in urine as a biological indicator of formaldehyde exposure: A review. *Am Ind Hyg Assoc J* 48:900-908.
- Bogdanffy MS, Morgan PH, Starr TB, et al. 1987. Binding of formaldehyde to human and rat nasal mucus and bovine serum albumin. *Toxicol Lett* 38:145-154.
- *Boja JW, Nielsen JA, Foldvary E, et al. 1985. Acute low-level formaldehyde behavioural and neurochemical toxicity in the rat. *Prog Neuro-Psychopharmacol Biol Psychiat* 9:671-674.

8. REFERENCES

- *Bolt HM. 1987. Experimental toxicology of formaldehyde. *J Cancer Res Clin Oncol* 113:305-309.
- *Bond GG, Flores GH, Shellenberger RJ, et al. 1986. Nested case-control study of lung cancer among chemical workers. *Am J Epidemiol* 124:53-66.
- Bond JA. 1993. Metabolism and elimination of inhaled drugs and airborne chemicals from the lungs. *Pharmacol Toxicol* 72:36-47.
- Booz, Allen, Hamilton, Inc. 1979. Preliminary study of the costs of increased regulation of formaldehyde exposure in the US workplace. Prepared for Formaldehyde Task Force, Synthetic Organic Chemical Manufacturers Association, Fiorham Park, NJ. 3-30, 339-341, 359-364, 370-372.
- *Boreiko CJ, Ragan DL. 1983. Formaldehyde effects in the C3H/10T $\frac{1}{2}$ cell transformation assay. In: Gibson JE, ed. *Formaldehyde toxicity*. Washington, DC: Hemisphere Publishing Corporation, 63-71.
- Bostrom C-E, Almen J, Steen B, et al. 1994. Human exposure to urban air pollution. *Environ Health Perspect* 102:39-47.
- *Boysen M, Zadig E, Digernes V, et al. 1990. Nasal mucosa in workers exposed to formaldehyde: a pilot study. *Br J Ind Med* 47:116-121.
- *Bracken MJ, Leasa DJ, Morgan WKC. 1985. Exposure to formaldehyde: Relationship to respiratory symptoms and function. *Can J Public Health* 76:312-316.
- Braga PC. 1989. Agents that affect ciliary activity. In: Braga PC, Allegra L, ed. *Drugs in bronchial mucology*. New York, NY: Raven Press Ltd., 335-348.
- Braga PC, Allegra L. 1989. Agents that modify glandular activity and mucus secretion. In: Braga PC, Allegra L, ed. *Drugs in bronchial mucology*. New York, NY: Raven Press, Ltd, 349-358.
- Brandorff NP, Flyvhokm M-A, Beck ID, et al. 1995. National survey on the use of chemicals in the working environment: Estimated exposure events. *Occup Environ Med* 52:454-463.
- Brandwein M, Pervez N, Biller H. 1987. Nasal squamous carcinoma in an undertaker - does formaldehyde play a role? *Rhinology* 25:279-284.
- *Brinton LA, Blot WJ, Becker JA, et al. 1984. A case-control study of cancers of the nasal cavity and paranasal sinuses. *Am J Epidemiol* 119:896-906.
- *Brinton LA, Blot WJ, Fraumeni JFJ. 1985. Nasal cancer in the textile and clothing industries. *Br J Ind Med* 42:469-474.
- Brockman HE, Yung CY, deSerres FJ. 1981. Potent mutagenicity of formaldehyde in a nucleotide excision repair-deficient heterokaryon of *Neurospora crassa* [Abstract]. *Environ Mutagen* 3:379-380.
- Broder I, Corey P, Cole P, et al. 1988a. Comparison of health of occupants and characteristics of houses among control homes and homes insulated with urea formaldehyde foam. II. Initial health and house variables and exposure-response relationships. *Environ Res* 45:156-178.

8. REFERENCES

- Broder I, Corey P, Brasher P, et al. 1988b. Comparison of health of occupants and characteristics of houses among control homes and homes insulated with urea formaldehyde foam. III. Health and house variables following remedial work. *Environ Res* 45:179-203.
- Broder I, Corey P, Brasher P, et al. 1991. Formaldehyde exposure and health status in households. *Environ Health Perspect* 95:101-104.
- Brown BL, Allis JW, Simmons JE, et al. 1995. Fasting for less than 24 h induces cytochrome P450 2E1 and 2B½ activities in rats. *Toxicol Lett* 81:39-44.
- Brown KG. 1985. Risk assessment of laboratory rats and mice chronically exposed to formaldehyde vapors. *Risk Anal* 5:171-180.
- Brown LP. 1989. Do rats comply with EPA policy on cancer risk assessment for formaldehyde? *Regul Toxicol Pharmacol* 10:196-200.
- *Brutlag D, Schlehuber C, Bonner J. 1969. Properties of formaldehyde-treated nucleohistone. *Biochemistry* 8:3214-3218.
- Bruze M. 1988. Patch testing with a mixture of 2 phenol-formaldehyde resins. *Contact Dermatitis* 19:116-119.
- Bruze M, Almgren G. 1988. Occupational dermatoses in workers exposed to resins based on phenol and formaldehyde. *Contact Dermatitis* 19:272-277.
- Buckley KE, Fisher L J, MacKay VG. 1986. Electron capture gas chromatographic determination of traces of formaldehyde in milk as the 2,4-dinitrophenylhydrazone. *J Assoc Off Anal Chem* 69:655-657.
- *Buckley KE, Fisher LJ, MacKay VG. 1988. Levels of formaldehyde in milk, blood, and tissues of dairy cows and calves consuming formalin-treated whey. *J Agric Food Chem* 36:1146-1150.
- *Budavari S, O'Neil MJ, Smith A, et al. 1989. *The Merck index*. 11th ed. Rahway, N.J.: Merck & Co., Inc.
- Budiansky S. 1980. Indoor air pollution. *Environ Sci Technol* 14:1023-1027.
- Bufalini JJ, Gay B W. Jr, Brubaker KL. 1972. Hydrogen peroxide formation from formaldehyde photooxidation and its presence in urban atmospheres. *Environ Sci Technol* 6:816-821.
- *Bufalini JJ, Lancaster HT, Namie GR, et al. 1979. Hydrogen peroxide formation from the photooxidation of formaldehyde and its presence in rainwater. *J Environ Sci Health Part A* 14:135-141.
- *Burge PS, Harries MG, Lam WK, et al. 1985. Occupational asthma due to formaldehyde. *Thorax* 40:255-260.
- Burkhart K, Kulig K, Rumack BH, et al. 1989. Formate and methanol levels following formalin ingestion [Abstract]. *Vet Hum Toxicol* 31:375.
- *Burkhart KK, Kulig KW, McMartin KE. 1990. Formate levels following a formalin ingestion. *Vet Hum Toxicol* 32:135-137.

8. REFERENCES

- Burridge TR, Lavery T, Lam PKS. 1995a. Acute toxicity tests using *Phyllospora comosa* (labillardiere) c. agardh (phaeophyta: fucales) and *Allorchestes compressa* dana (crustacea: amphipoda). Bull Environ Contam Toxicol 55:621-628.
- Burridge TR, Lavery T, Lam PKS. 1995b. Effects of tributyltin and formaldehyde on the germination and growth of *Phyllospora comosa* (labillardiere) c. agardh (phaeophyta: fucales). Bull Environ Contam Toxicol 55:525-532.
- Bush ML, Frederick CB, Kimbell JS, et al. 1998. A CFD-PBPK hybrid model for simulating gas and vapor uptake in the rat nose. Toxicol Appl Pharmacol 150:133-145.
- Butterworth BE, Conolly RB, Morgan KT. 1995. A strategy for establishing mode of action of chemical carcinogens as a guide for approaches to risk assessments. Cancer Lett 93:129-146.
- Cadet R, Pajot J, Papon A, et al. 1998. Is there a correlation between scores of nociceptive behavioral responses to formalin injections given at different body sites in the rat? Neurosci Lett 242:123-126.
- Callas PW, Pastides H, Hosmer DW Jr. 1996. Lung cancer mortality among workers in formaldehyde industries. J Occup Environ Med 38:747-748.
- *Calvert JG, Kerr JA, Demerjian KL, et al. 1972. Photolysis of formaldehyde as a hydrogen atom source in the lower atmosphere. Science 175:751-752.
- Cam V. 1985. Issues on health risk assessment a hazardous waste sites and resource recovery facilities in Region II. Toxicol Ind Health 1:271-276.
- Carlson FE, Phillips EK, Tenhaeff SC, et al. 1995. A study of formaldehyde and other organic emissions from pressing of laboratory oriented strandboard. For Prod J 45:71-77.
- Carpenter CP, Smyth HF. 1946. Chemical burns of the rabbit cornea. Am J Ophthalmol 29:1363-1372.
- *Carraro E, Gasparini S, Petrini T, et al. 1997. Immune response prevalence to formaldehyde-human serum albumin molecular adduct in a health population. J Environ Pathol Toxicol Oncol 16:215-218.
- Carter WPL. 1990. A detailed mechanism for the gas-phase atmospheric reactions of organic compounds. Atmos Environ 24A:481-518.
- *Casanova M, Heck Hd'A. 1987. Further studies of the metabolic incorporation and covalent binding of inhaled [³H]- and [¹⁴C] formaldehyde in Fischer-344 rats: Effects of glutathione depletion. Toxicol Appl Pharmacol 89:105-121.
- Casanova M, Heck Hd'A. 1991. The impact of DNA-protein cross-linking studies on quantitative risk assessments of formaldehyde. CIIT Act 11:1-6.
- Casanova M, Heck Hd'A. 1997. Lack of evidence for the involvement of formaldehyde in the hepatocarcinogenicity of methyl *tertiary*-butyl ether in CD-1 mice. Chem Biol Interact 105:131-143.
- Casanova M, Conolly RB, Heck Hd'A. 1996a. DNA-protein cross-links (DPC) and cell proliferation in B6C3F₁ mice but not Syrian golden hamsters exposed to dichloromethane: Pharmacokinetics and risk assessment with DPX as dosimeter. Fundam Appl Toxicol 31:103-116.

8. REFERENCES

- *Casanova M, Deyo DF, Heck Hd'A. 1989. Covalent binding of inhaled formaldehyde to DNA in the nasal mucosa of Fischer 344 rats: Analysis of formaldehyde and DNA by high-performance liquid chromatography and provisional pharmacokinetic interpretation. *Fundam Appl Toxicol* 12:319-417.
- *Casanova M, Deyo DF, Heck Hd'A. 1992. Dichloromethane (methylene chloride): Metabolism to formaldehyde and formation of DNA-protein cross links in B6C3F1 mice and Syrian golden hamsters. *Toxicol Appl Pharmacol* 114:162-165.
- *Casanova M, Heck Hd'A, Everitt JI, et al. 1988. Formaldehyde concentrations in the blood of Rhesus monkeys after inhalation exposure. *Food Chem Toxicol* 26:715-716.
- Casanova M, Heck Hd'A, Janszen D. 1996b. Comments on 'DNA-protein crosslinks, a biomarker of exposure to formaldehyde-*in vitro* and *in vivo* studies' by Shaham *et al.* [Letter]. *Carcinogenesis* 17:2097-2101.
- *Casanova M, Morgan KT, Gross EA, et al. 1994. DNA-protein cross-links and cell replication at specific sites in the nose of F344 rats exposed subchronically to formaldehyde. *Fundam Appl Toxicol* 23:525-536.
- *Casanova M, Morgan KT, Steinhagen WH, et al. 1991. Covalent binding of inhaled formaldehyde to DNA in the respiratory tract of Rhesus monkeys: Pharmacokinetics, rat-to-monkey interspecies scaling, and extrapolation to man. *Fundam Appl Toxicol* 17:409-428.
- Casanova-Schmitz M, Heck H. 1983. Effects of formaldehyde exposure on the extractability of DNA from proteins in the rat nasal mucosa. *Toxicol Appl Pharmacol* 70:121-132.
- *Casanova-Schmitz M, Raymond MD, Heck H d'A. 1984b. Oxidation of formaldehyde and acetaldehyde by NAD⁺-dependent dehydrogenases in rat nasal mucosal homogenates. *Biochem Pharmacol* 33:1137-1142.
- *Casanova-Schmitz M, Starr TB, Heck Hd'A. 1984a. Differentiation between metabolic incorporation and covalent binding in the labeling of macromolecules in the rat nasal mucosa and bone marrow by inhaled [¹⁴C]- and [³H] formaldehyde. *Toxicol Appl Pharmacol* 76:26-44.
- Cascieri TC, Clary JJ. 1992. Formaldehyde-oral toxicity assessment. *Comments Toxicol* 4:295-304.
- Cassee FR, Feron VJ. 1993. Histopathological and biochemical changes in nasal epithelium of rats after 3-day intermittent exposure to a mixture of ozone and formaldehyde [Abstract]. *Toxicol Lett* 72:142.
- Cassee FR, Arts JHE, Groten JP, et al. 1996a. Sensory irritation to mixtures of formaldehyde, acrolein, and acetaldehyde in rats. *Arch Toxicol* 70:329-337.
- *Cassee FR, Groten JP, Feron VJ. 1996b. Changes in the nasal epithelium of rats exposed by inhalation to mixtures of formaldehyde, acetaldehyde, and acrolein. *Fundam Appl Toxicol* 29:208-218.
- Cassee FR, Stenhuis WH, Groten JP, et al. 1996c. Toxicity of formaldehyde and acrolein mixtures: *in vitro* studies using nasal epithelial cells. *Exp Toxicol Pathol* 48:481-483.
- *Cassee R, Feron VJ. 1994. Biochemical and histopathological changes in nasal epithelium of rats after 3-day intermittent exposure to formaldehyde and ozone alone or in combination. *Toxicol Lett* 72:257-268.

8. REFERENCES

- *Cassidy SL, Dix KM, Jenkins T. 1983. Evaluation of a testicular sperm head counting technique using rats exposed to dimethoxyethyl phthalate (DMEP), glycerol alpha-monochlorohydrin (GMCH), epichlorohydrin (ECH), formaldehyde (FA), or methyl methanesulphonate (MMS). *Arch Toxicol* 53:71-78.
- Casteel SW, Vernon RJ, Bailery EM. 1987. Formaldehyde: Toxicology and hazards. *Vet Hum Toxicol* 29:31-33.
- Castle ME. 1986. Silage: Pollution problems and their avoidance [Abstract]. *Anim Prod* 42:447.
- *Chameides WL. 1986. Photochemistry of the atmospheric aqueous phase. In: Jaeschke W, ed. *Chemistry of multiphase atmospheric systems*. Berlin: Springer-Verlag, 369-413.
- *Chameides WL, Davis DD. 1983. Aqueous-phase source of formic acid in clouds. *Nature* 304:427-429.
- *Chan C-C, Spengler JD, Ozkaynak H, et al. 1991. Commuter exposures to VOCs in Boston, Massachusetts. *J Air Waste Manage Assoc* 41:1594-1600.
- *Chang J-Y, Lin J-M. 1998. Aliphatic aldehydes and allethrin in mosquito-coil smoke. *Chemosphere* 36:617-624.
- *Chang JCF, Gross EA, Swenberg JA, et al. 1983. Nasal cavity deposition, histopathology, and cell proliferation after single or repeated formaldehyde exposure in B6C3F1 mice and F-344 rats. *Toxicol Appl Pharmacol* 68:161-176.
- *Chang JCF, Steinhagen H, Barrow CS. 1981. Effect of single or repeated formaldehyde exposure on minute volume of B6C3F1 mice and F-344 rats. *Toxicol Appl Pharmacol* 61:451-459.
- *Chebotarev AN, Titenko NV, Selezneva TG, et al. 1986. Comparison of the chromosome aberrations, sister chromatid exchanges, and unscheduled DNA synthesis when evaluating the mutagenicity of environmental factors. *Cytol Genet* 20:21-26.
- Cheney JE, Collins CH. 1995. Formaldehyde disinfection in laboratories: limitations and hazards. *Br J Biomed Sci* 52:195-201.
- *Chiazze LJ, Watkins DK, Fryar C, et al. 1993. A case-control study of malignant and non-malignant respiratory disease among employees of a fiberglass manufacturing facility. II: Exposure assessment. *Br J Ind Med* 50:717-725.
- Chiazze L Jr, Watkins DK, Fryar C. 1997. Historical cohort mortality study of a continuous filament fiberglass manufacturing plant. I. White men. *J Occup Environ Med* 39:432-441.
- *Chou C-C, Que Hee SS. 1994. Saliva-available carbonyl compounds in some chewing tobaccos. *J Agric Food Chem* 42:2225-2230.
- *CIIT. 1998. Chemical Industry Institute of Toxicology. Formaldehyde risk assessment meeting. November 14, 1997. Research Triangle Park, NC.
- Clement PAR, Stoop AP, Kaufman L. 1987. The influence of formaldehyde on the nasal mucosa. *Rhinology* 25:29-34.

8. REFERENCES

- Clement RE, Langhorst ML, Eiceman GA. 1991. Environmental analysis. *Anal Chem* 63:270R-292R.
- *Cleveland WS, Graedel TE, Kleiner B. 1977. Urban formaldehyde: Observed correlation with source emissions and photochemistry. *Atmos Environ* 11:357.
- *Clewell HJ III, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol Ind Health* 1:111-113.
- Cocco P, Ward MH, Buiatti E. 1996. Occupational risk factors for gastric cancer: An overview. *Epidemiol Rev* 18:218-234.
- Coene RF. 1981. Formaldehyde: Evidence of carcinogenicity. *Vet Hum Toxicol* 23:282-285.
- *Cofer WR, Edahl RA. 1986. A new technique for collection, concentration and determination of gaseous tropospheric formaldehyde. *Atmos Environ* 20:979-984.
- *Coggon D, Pannett B, Acheson ED. 1984. Use of job-exposure matrix in an occupational analysis of lung and bladder cancers on the basis of death certificates. *J Natl Cancer Inst* 72:61-65.
- *Cohen MD, Miller CA, Xu LS, et al. 1990. A blotting method for monitoring the formation of chemically induced DNA-protein complexes. *Anal Biochem* 186:1-7.
- Cohen MR. 1995. Insufficient dose of hepatitis B vaccine given to 1400 newborns; formalin accidents. *Hosp Pharm* 30:938-939.
- Cohen N, Modai D, Khahil A, et al. 1989. Acute resin phenol-formaldehyde intoxication. A life threatening occupational hazard. *Hum Toxicol* 8:247-250.
- *Cohen Hubal EA, Schlosser PM, Conolly RB, et al. 1997. Comparison of inhaled formaldehyde dosimetry predictions with DNA-protein cross-link measurements in the rat nasal passages. *Toxicol Appl Pharmacol* 143:47-55.
- Cohn MS. 1985. Description of a carcinogenic risk assessment used in a regulatory proceeding: Formaldehyde. In: Hoel DG, Merrill RA, Perera FP, ed. *Risk quantitation and regulatory policy*. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, 269-281.
- Colizzo F, Krantz MJ, Fish JE, et al. 1992. Ciliated respiratory epithelial surface changes after formaldehyde exposure. *J Toxicol Environ Health* 35:221-234.
- Colli M, Gironi A, Molina V, et al. 1991. Improved HPLC methodology in occupational exposure studies on formaldehyde. *Chromatographia* 32:113-115.
- *Collins JJ, Acquavella JF, Esmen NA. 1997. An updated meta-analysis of formaldehyde exposure and upper respiratory tract cancers. *J Occup Environ Med* 39:639-651.
- Collins JJ, Caporossi J C, Utidjian HMD. 1988. Formaldehyde exposure and nasopharyngeal cancer: Re-examination of the National Cancer Institute study and an update of one plant. *J Natl Cancer Inst* 80:376-377.
- Conaway CC, Whysner J, Verna LK, et al. 1996. Formaldehyde mechanistic data and risk assessment: Endogenous protection from DNA adduct formation. *Pharmacol Ther* 71:29-55.

8. REFERENCES

- *Connor TH, Barrie MD, Theiss JC, et al. 1983. Mutagenicity of formalin in the Ames assay. *Mutat Res* 119:145-149.
- *Connor TH, Theiss JC, Hanna HA, et al. 1985a. Genotoxicity of organic chemicals frequently found in the air of mobile homes. *Toxicol Lett* 25:33-40.
- *Connor TH, Ward JB, Legator MS. 1985b. Absence of mutagenicity in the urine of autopsy service workers exposed to formaldehyde: factors influencing mutagenicity testing of urine. *Int Arch Occup Environ Health* 56:225-237.
- *Conolly RB, Andersen ME. 1993. An approach to mechanism-based cancer risk assessment for formaldehyde. *Environ Health Perspect Suppl* 101:169-176.
- Conolly RB, Andjelkovich DA, Casanova M, et al. 1995. Multidisciplinary, iterative examination of the mechanism of formaldehyde carcinogenicity: The basis for better risk assessment. *CIIT Act* 15:1-10.
- *Conolly RB, Morgan KT, Andersen ME, et al. 1992. A biologically-based risk assessment strategy for inhaled formaldehyde. *Comments Toxicol* 4:269-293.
- Contreras KM, Larsen SJV, Harris C. 1996. Differential *in vitro* toxicity of mouse and rat embryos following direct intra-amniotic exposure to methanol, form-aldehyde and sodium formate [Abstract]. *Toxicologist* 30:194.
- Coon RA, Jones RA, Jenkins LJ Jr, et al. 1970. Animal inhalation studies on ammonia, ethylene, glycol, formaldehyde, dimethylamine and ethanol. *Toxicol Appl Pharmacol* 16:646-655.
- Cooper JR, Kini MM. 1962. Biochemical aspects of methanol poisoning. *Biochem Pharmacol* 11:405-416.
- Cosma GN, Marchok AC. 1986. Growth inhibition and DNA damage in rat tracheal epithelial cells exposed to benzo(a)pyrene and formaldehyde (HCHO) [Abstract]. *J Cell Biol* 103:173a.
- Cosma GN, Marchok AC. 1987. The induction of growth-altered cell populations (tumor-initiation sites) in rat tracheal implants exposed to benzo(a)pyrene and formaldehyde. *Carcinogenesis* 8:1951-1953.
- *Cosma GN, Marchok AC. 1988. Benzo[a]pyrene- and formaldehyde-induced DNA damage and repair in rat tracheal epithelial cells. *Toxicology* 51:309-320.
- *Cosma GN, Jamabi R, Marchok AC. 1988a. Growth inhibition and DNA damage induced by benzo[a]pyrene and formaldehyde in primary cultures of rat tracheal epithelial cells. *Mutat Res* 201:161-168.
- Cosma GN, Wilhite AS, Marchok AC. 1988b. In vivo detection of DNA-protein crosslinks in rat tracheal implants exposed to benzo(a)pyrene (BAP) and formaldehyde (HCHO) [Abstract]. *Proc Am Assoc Cancer Res* 29:108.
- Cosma GN, Wilhite AS, Marchok AC. 1988c. The detection of DNA-protein cross-links in rat tracheal implants exposed in vivo to benzo(a)pyrene and formaldehyde. *Cancer Lett* 42:13-21.
- Costa M, Zhitkovich A, Harris M, et al. 1997. DNA-protein cross-links produced by various chemicals in cultured human lymphoma cells. *J Toxicol Environ Health* 50:433-449.

8. REFERENCES

- Costantini AS, Paci E, Miligi L, et al. 1989. Cancer mortality among workers in the Tuscan tanning industry. *Br J Ind Med* 46:384-388.
- Couch DB, Allen PF, Eales HC. 1982. The mutagenicity of formaldehyde to *Salmonella typhimurium* [Abstract]. *Environ Mutagen* 4:336-337.
- Council on Scientific Affairs. 1989. Formaldehyde. *JAMA, J Am Med Assoc* 261:1183-1187.
- *CPSC. 1997. An update on formaldehyde. Washington, DC: U.S. Consumer Product Safety Commission.
- Craft TR, Bermudez E, Skopek TR. 1987. Formaldehyde mutagenesis and formation of DNA-protein crosslinks in human lymphoblasts in vitro. *Mutat Res* 176:147-155.
- Cronin E. 1991. Formaldehyde is a significant allergen in women with hand eczema. *Contact Dermatitis* 25:276-282.
- Crosby RM, Richardson KK, Craft TR, et al. 1988. Molecular analysis of formaldehyde-induced mutations in human lymphoblasts and *e. coli*. *Environ Mol Mutagen* 12:155-166.
- Crump DR. 1995. Volatile organic compounds in indoor air. In: *Volatile organic compounds in the atmosphere*. Cambridge: Royal Society of Chemistry, 109-124.
- Crump DR, Squire RW, Yu CWF. 1997. Sources and concentrations of formaldehyde and other volatile organic compounds in the indoor air of four newly built unoccupied test houses. *Indoor Built Environ* 6:45-55.
- *Daggett DL, Stock TH. 1985. An investigation into the storage stability of environmental formaldehyde samples. *Am Ind Hyg Assoc J* 46:497-504.
- Dahl AR, Hadley WM. 1983. Formaldehyde production promoted by rat nasal cytochrome P-450-dependent monooxygenases with nasal decongestants, essences, solvents, air pollutants, nicotine, and cocaine as substrates. *Toxicol Appl Pharmacol* 67:200-205.
- *Dalbey WE. 1982. Formaldehyde and tumors in hamster respiratory tract. *Toxicology* 27:9-14.
- *Dalene M, Persson P, Skarping G. 1992. Determination of formaldehyde in air by chemisorption on glass filters impregnated with 2,4-dinitrophenylhydrazine using gas chromatography with thermionic specific detection. *J Chromatogr* 626:284-288.
- Dallas CE, Badeaux P, Theiss JC, et al. 1989. The influence of inhaled formaldehyde on rat lung cytochrome P450. *Environ Res* 49:50-59.
- Dallas CE, Mellard DN, Theiss JC, et al. 1987. Distribution of DNA and RNA content in the bone marrow and alveolar macrophages of rats after subchronic inhalation of formaldehyde. *Environ Res* 43:191-202.
- *Dallas CE, Scott MJ, Ward JB Jr, et al. 1992. Cytogenetic analysis of pulmonary lavage and bone marrow cells of rats after repeated formaldehyde inhalation. *J Appl Toxicol* 12:199-203.

8. REFERENCES

- *Dallas CE, Theiss JC, Harrist RB, et al. 1985. Effect of subchronic formaldehyde inhalation on minute volume and nasal deposition in Sprague-Dawley rats. *J Toxicol Environ Health* 16:553-564.
- *Dallas CE, Theiss JC, Harrist RB, et al. 1986. Respiratory responses in the lower respiratory tract of Sprague-Dawley rats to formaldehyde inhalation. *J Environ Pathol Toxicol Oncol* 6:1-12.
- Dally KA, Hanrahan LP, Woodbury MA, et al. 1981. Formaldehyde exposure in nonoccupational environments. *Arch Environ Health* 36:277-284.
- *Day JH, Lees REM, Clark RH, et al. 1984. Respiratory response to formaldehyde and off-gas of urea formaldehyde foam insulation. *Can Med Assoc J* 131:1061-1065.
- Deal FH, Swenberg JA, Fennell TR. 1989. Detection of hydroxymethyl adducts in deoxyribonucleosides, calf thymus DNA from isolated rat liver nuclei treated with formaldehyde [Abstract]. *Carcinogenesis* 30:131.
- *Dean JH, Lauer LD, House RV, et al. 1984. Studies of immune function and host resistance B6C3CLF1 mice exposed to formaldehyde. *Toxicol Appl Pharmacol* 72:519-529.
- DeAndrade JB, Tanner RL. 1992. Determination of formaldehyde by HPLC as the DNPH derivative following high-volume air sampling onto bisulfite-coated cellulose filters. *Atmos Environ* 26:819-825.
- Dearman RJ, Smith S, Basketter DA, et al. 1996. Classification of chemical allergens according to cytokine secretion profiles murine lymph node cells. *J Appl Toxicol* 17:53-62.
- Dechow M, Sohn H, Steinhanses J. 1997. Concentrations of selected contaminants in cabin air of airbus aircrafts. *Chemosphere* 35:21-31.
- *De Flora S. 1981. Study of 106 organic and inorganic compounds in the *Salmonella*/microsome test. *Carcinogenesis* 2:283-298.
- *De Flora S, Znacchi P, Camoirano A, et al. 1984. Genotoxic activity and potency of 135 compounds in the Ames reversion test and in a bacterial DNA-repair test. *Mutat Res* 133:161-198.
- DeGroot AC, Gerkens F. 1989. Contact urticaria from a chemical textile finish. *Contact Dermatitis* 20:63-64.
- DeGroot AC, Bos JD, Jagtman BA, et al. 1986. Contact allergy to preservatives - II. *Contact Dermatitis* 15:218-222.
- *DeGroot AC, VanJoost T, Bos JD, et al. 1988. Patch test reactivity to DMDM hydantoin: Relationship to formaldehyde allergy. *Contact Dermatitis* 18:197-201.
- *Dekant W, Vamvakas S. 1993. Glutathione-dependent bioactivation of xenobiotics. *Xenobiotica* 23:873-887.
- Dell L, Teta MJ. 1995. Mortality among workers at a plastics manufacturing and research and development facility: 1946-1988. *Am J Ind Med* 28:373-384.
- *Dempsey CR. 1993. A comparison of organic emissions from hazardous waste incinerators versus the 1990 Toxics Release Inventory air releases. *J Air Waste Manage Assoc* 43:1374-1379.

8. REFERENCES

- Denton RA, Parker JE, Abrons HL, et al. 1988. Lack of relationship between low levels of formaldehyde and airway hyperreactivity or changes in ventilatory function: A prospective study [Abstract]. *Am Rev Respir Dis* 137:299.
- Dicker E, Cederbaum AI. 1987. Pathways of metabolism of formaldehyde produced from the oxidation of aminopyrine by intact rat hepatocytes. *Ann N Y Acad Sci* 494:332-335.
- Dillon HK, Gao P. 1994. Laboratory evaluation of a novel reactive passive sampler for the quantitative determination of formaldehyde in air. *Am Ind Hyg Assoc J* 55:1061-1068.
- *Dinsdale D, Riley RA, Verschoyle RD. 1993. Pulmonary cytochrome P450 in rats exposed to formaldehyde vapor. *Environ Res* 62:19-27.
- Doman NG, Romanova AK, Terent'eva ZA. 1961. [Conversion of some volatile organic substances absorbed by leaves from the atmosphere.]. *Dokl Akad Nauk SSSR* 138:702-705. (Russian)
- *Dong S, Dasgupta PK. 1986. Solubility of gaseous formaldehyde in liquid water and generation of trace standard gaseous formaldehyde. *Environ Sci Technol* 20:637-640.
- *Dong S, Dasgupta PK. 1987. Fast fluorometric flow injection analysis of formaldehyde in atmospheric water. *Environ Sci Technol* 21:581-588.
- *Donovan SM, Krahn DF, Stewart JA, et al. 1983. Mutagenic activities of formaldehyde (HCHO) and hexamethylphosphoramide (HMPA) in reverse and forward *Salmonella typhimurium* mutation assays [Abstract]. *Environ Mutagen* 5:476.
- *DOT. 1980. Chemical kinetic and photochemical data sheets for atmospheric reactions. Washington, DC: U.S. Department of Transportation. AD A 091 631, FAA-EE-80-17.
- Dowd MA, Gaulden ME, Proctor BL, et al. 1986. Formaldehyde-induced acetic chromosome fragments and chromosome stickiness in *Chortophaga* neuroblasts. *Environ Mutagen* 8:401-411.
- *Dreisbach RH, Robertson WO. 1987. Esters, aldehydes, ketones & ethers. In: Dreisbach RH, Robertson WO, ed. *Handbook of poisoning: prevention, diagnosis & treatment*. Norwalk, CT: Appleton & Lange, 180-188.
- *Dresp J, Bauchinger M. 1988. Direct analysis of the clastogenic effect of formaldehyde in unstimulated human lymphocytes by means of the premature chromosome condensation technique. *Mutat Res* 204:349-352.
- Dulany MA, Batten GLJ, Peck MC, et al. 1996. Papermaking additives. In: Howe-Grant M, ed. *Kirk-Othmer encyclopedia of chemical technology*. New York: John Wiley & Sons, Inc., 35-60.
- Dumont M, D'Hont C, Moreal A, et al. 1996. Retrograde injections of formaldehyde into the biliary tree induce alterations of biliary epithelial function in rats. *Hepatology* 24:1217-1223.
- Du Vigneaud V, Verly WG, Wilson JE. 1950. Incorporation of the carbon of formaldehyde and formate into the methyl groups of choline. *J Am Chem Soc* 72:2819-2820.

8. REFERENCES

- *Dykewicz MS, Patterson R, Cugell DW, et al. 1991. Serum IgE and IgG to formaldehyde-human serum albumin: Lack of relation to gaseous formaldehyde exposure and symptoms. *J Allergy Clin Immunol* 87:48-57.
- Ebeler SE, Hinrichs SH, Clifford AJ, et al. 1992. Analysis of reactive carbonyls in the expired air of transgenic mice. *Anal Biochem* 205:183-186.
- *Eberlein-Konig B, Przybilla B, Kuhl P, et al. 1998. Influence of airborne nitrogen dioxide or formaldehyde on parameters of skin function and cellular activation in patients with atopic eczema and control subjects. *J Allergy Clin Immunol* 101:141-143.
- *ECETOC. 1995. Technical Report No. 65. Formaldehyde and human cancer risk. Brussels, Belgium: ECETOC.
- Echt A, Burr G. 1997. Exposure to formaldehyde during garment manufacturing. *Appl Occup Environ Hyg* 12:451-455.
- Edling C, Hellquist H, Odkvist L. 1987a. Occupational formaldehyde exposure and the nasal mucosa. *Rhinology* 25:181-187.
- Edling C, Jarvholm B, Andersson L, et al. 1987b. Mortality and cancer incidence among workers in an abrasive manufacturing industry. *Br J Ind Med* 44:57-59.
- *Edling C, Hellquist H, Odkvist L. 1988. Occupational exposure to formaldehyde and histopathological changes in the nasal mucosa. *Br J Ind Med* 45:761-765.
- Edman B, Moller H. 1982. Trends and forecasts for standard allergens in a 12-year patch test material. *Contact Dermatitis* 8:95-104.
- *Eells JT, McMartin KE, Black K, et al. 1981. Formaldehyde poisoning: Rapid metabolism to formic acid. *JAMA, J Am Med Assoc* 246:1237-1238.
- *Egle JL. 1972. Retention of inhaled formaldehyde, propionaldehyde, and acrolein in the dog. *Arch Environ Health* 25:119-124.
- *Egle JL, Hudgins PM. 1974. Dose-dependent sympathomimetic and cardioinhibitory effects of acrolein and formaldehyde in the anesthetized rat. *Toxicol Appl Pharmacol* 28:358-366.
- Egle JJJ, Hudgins PM, Lai FM. 1973. Cardiovascular effects of intravenous acetaldehyde and propionaldehyde in the anesthetized rat. *Toxicol Appl Pharmacol* 24:636-644.
- Ehling UH. 1985. Dose-effect relationships of germ cell mutations in mice [Abstract]. *Mutat Res* 147:279-327.
- Eikmann T, Prajsnar D, Einbrodt HJ. 1987. Quantitative estimation of formaldehyd exposure in normal population collectives on the basis of the formic acid excretion in urine [Abstract]. *Zentralbl Bakteriol Mikrobiol Hyg [B]* 183:483-484.
- *Eitzer BD, Iannucci-Berger WA, Mark G, et al. 1997. Fate of toxic compounds during composting. *Bull Environ Contam Toxicol* 58:953-960.

8. REFERENCES

- Eker P, Sanner T. 1980. Initiation of *in vitro* cell transformation by formaldehyde and acetaldehyde as measured by attachment-independent survival of cells in aggregates. *Eur J Cancer Clin Oncol* 22:671-676.
- *Ellenhorn MJ, Barceloux DG. 1988. Hydrocarbon products. In: Ellenhorn MJ, Barceloux DG, ed. *Medical toxicology: diagnosis and treatment of human poisoning*. New York: Elsevier, 1001-1004.
- Ellwood PA, Groves JA, Pengelly MI. 1990. Evaluation of a diffuse sampler for formaldehyde. *Ann Occup Hyg* 34:305-313.
- ElSayed F, Seite-Bellezza D, Sans B, et al. 1995. Contact urticaria from formaldehyde in a root-canal dental paste. *Contact Dermatitis* 33:353.
- Endres P. 1992. [Effects of airborne pollutants on the respiratory tract]. In: Akkermann R, Behrends HB, Ehrnsberger R, ed. [Allergy and the environment: Medical and ecological contributions]. Cloppenburg, Germany: Verlag Guenter Runge, 105-114. (German)
- Engelhardt G, Fleig I, Helmstadter G. 1987. Letter to the editor. *Mutat Res* 180:131-133.
- *EPA. 1975. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 180.1032.
- *EPA. 1976a. Investigation of selected potential environmental contaminants: Formaldehyde. U.S. Environmental Protection Agency, Office of Toxic Substances. PB 256 839, EPA-560/2-76-009.
- *EPA. 1976b. Frequency of organic compounds identified in water. Athens, GA: U.S. Environmental Protection Agency, Environmental Research Laboratory, Office of Research and Development. EPA-600/4-76-062.
- *EPA. 1977a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 86.
- *EPA. 1977b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 176.170.
- *EPA. 1977c. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 176.180.
- *EPA. 1978. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 116.4.
- EPA. 1979. Chemical Hazard Information Profile: Formaldehyde. Washington, DC: U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances. Draft edition. (November 26, 1979)
- *EPA. 1980. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 261.33.
- *EPA. 1981. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 261, Appendix VII.
- *EPA. 1982. Atmospheric chemistry of several toxic compounds. Research Triangle Park, NC: U.S. Environmental Protection Agency, Environmental Sciences Research Laboratory, Office of Research and Development. PB83-146340, EPA-600/3-82-092.
- *EPA. 1983a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 60.489.

8. REFERENCES

- *EPA. 1983b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 122, Appendix D.
- *EPA. 1984. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 125.
- *EPA. 1985a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 302.4
- *EPA. 1985b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 117.3.
- *EPA. 1985c. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 266.112.
- *EPA. 1986a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 268.10.
- *EPA. 1986b. U. S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 268.42.
- *EPA. 1987a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 414.60.
- *EPA. 1987b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 268.4.
- *EPA. 1987c. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 355, Appendix A.
- *EPA. 1987d. Assessment of health risks to garment workers and certain home residents from exposure to formaldehyde. U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances.
- *EPA. 1988a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 372.
- *EPA. 1988b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 261, Appendix VIII.
- *EPA. 1988c. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 372.65.
- *EPA. 1988d. Compendium of methods for determination of toxic organic compounds in ambient air. U.S. Environmental Protection Agency. EPA-600/4-89/017.
- *EPA. 1988e. Recommendations for and documentation of biological values for use in risk assessment. Cincinnati, OH: U.S. Environmental Protection Agency, Environmental Criteria and Assessment Office. PB88-179874.
- *EPA. 1990a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 60.617.
- *EPA. 1990b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 60.667.
- *EPA. 1990c. Interim methods for development of inhalation reference doses. U.S. Environmental Protection Agency. EPA-600/8-90/066A.
- *EPA. 1991a. Formaldehyde risk assessment update - final draft. Washington, DC: U.S. Environmental Protection Agency, Office of Toxic Substances.
- *EPA. 1991b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 266, Appendix IX.

8. REFERENCES

- *EPA. 1991c. Locating and estimating air emissions from sources of formaldehyde (revised). Research Triangle Park, NC: U.S. Environmental Protection Agency. PB91-181842, EPA-450/4-91-012.
- EPA. 1991d. Urban air toxics monitoring program carbonyl results, 1990. Research Triangle Park, NC: U.S. Environmental Protection Agency. PB92-110030, EPA-450/4-91-025.
- *EPA. 1992a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 261.3.
- *EPA. 1992b. Methods for determination of organic compounds in drinking water. U.S. Environmental Protection Agency. EPA-600/R-92/129.
- *EPA. 1992c. National Air Toxics Information Clearinghouse: NATICH data base report on state, local, and EPA air toxics activities. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards.
- *EPA. 1993a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 60.707.
- *EPA. 1993b. U.S. Environmental Protection Agency. NESHAP for source category; pulp and paper production. Proposed rule. Federal Register 58:66078.
- *EPA. 1993c. U.S. Environmental Protection Agency. List of regulated substances and thresholds for accidental release prevention. Federal Register 58:5102.
- *EPA. 1993d. U.S. Environmental Protection Agency. Control of air pollution from new and in use motor vehicles and engines; technical amendments to the test procedures for methanol-fueled motor vehicles and motor vehicle engines and petroleum-fueled motor vehicles. Proposed rule. Federal Register 58:11816.
- EPA. 1993e. U.S. Environmental Protection Agency. Land disposal restrictions for newly identified and listed hazardous wastes and hazardous soil. Federal Register 58:48092.
- *EPA. 1994a. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 63.106.
- *EPA. 1994b. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 68.130.
- *EPA. 1994c. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 80.42.
- *EPA. 1994d. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 80.45.
- *EPA. 1994e. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 80.51.
- *EPA. 1994f. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 80.56.
- *EPA. 1994g. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 80.90.
- *EPA. 1994h. U.S. Environmental Protection Agency. HAP: proposed regulations governing constructed, reconstructed or modified major sources. U.S. Environmental Protection Agency. Federal Register 59:15504.

8. REFERENCES

- *EPA. 1994i. U.S. Protection Agency. Hazardous waste management system; carbamate production identification and listing of hazardous waste and CERCLA hazardous substance designation and reportable quantities. Notice of Proposed Rulemaking--K157 waste. Federal Register 59:9808.
- EPA. 1994j. U.S. Environmental Protection Agency. Methods for derivation of inhalation reference concentrations and application of inhalation dosimetry. Washington, DC: Environmental Criteria and Assessment Office, Office of Health and Exposure Assessment, Office of Research and Development. EPA/600/8-90-066F.
- *EPA. 1995. Drinking water regulations and health advisories. U.S. Environmental Protection Agency, Office of Water.
- *EPA. 1996. Sources and factors affecting indoor emission from engineered wood products: Summary and evaluation of current literature. Research Triangle Park, NC: U.S. Environmental Protection Agency, National Risk Management Research Laboratory, Office of Research and Development. PB96-183876, EPA-600/R-96-067.
- *EPA. 1997. U.S. Environmental Protection Agency. Federal Register. 62:7502.
- Estlander T, Jolanki R, Kanerva L, et al. 1990. An artist's allergy to reactive dyes and formaldehyde [Abstract]. Contact Dermatitis 23:271-272.
- Everitt JI, Boreiko CJ, Mangum JB, et al. 1989. Development of a tracheal implant xenograft model to expose human bronchial epithelial cells to toxic gases. Toxicol Pathol 17:465-473.
- *Facchini MC, Lind J, Orsi G, et al. 1990. Chemistry of carbonyl compounds in Po Valley fog water. Sci Total Environ 91:79-86.
- *Fan Q, Dasgupta PK. 1994. Continuous automated determination of atmospheric formaldehyde at the parts per trillion level. Anal Chem 66:551-556.
- Farooqui M Y.H, Upreti RK, Ahmed AE, et al. 1986. Influence of intraperitoneally administered formaldehyde on bile production and tissue glutathione levels in rats. Res Commun Chem Pathol Pharmacol 53:233-240.
- Fayerweather WE, Pell S, Bender JR. 1983. Case control study of cancer deaths in DuPont workers with potential exposure to formaldehyde (retrieval in progress). In: Clary JJ, Gibson E, Weritz RS, ed. Formaldehyde: Toxicology, epidemiology, mechanisms. New York, NY: Marcel Dekker, Inc., 47-125.
- *FDA. 1976. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 573.460.
- *FDA. 1977a. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 175.105.
- FDA. 1977b. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 176.170.
- FDA. 1977c. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 176.180.
- *FEDRIP. 1996. Federal Research in Progress. Dialog Information Services, Incorporated. October, 1995.

8. REFERENCES

- Feinman SE. 1988. Formaldehyde genotoxicity and teratogenicity. In: Feinman SE, ed. Formaldehyde sensitivity and toxicity. Boca Raton, FL: CRC Press, 167-178.
- Feldman MY. 1976. Reactions of nucleic acids and nucleoproteins with formaldehyde. *Prog Nucleic Acid Res Mol Biol* 13:1-49.
- Feldman MY, Balabanova H, Bachrach U, et al. 1977. Effect of hydrolyzed formaldehyde-treated RNA on neoplastic and normal human cells. *Cancer Res* 37:501-506.
- *Fennell TR. 1994. Development of methods for measuring biological markers of formaldehyde exposure. *Res Rep Health Eff Inst* 67:1-26.
- Fennell TR, Deal FH, Swenberg JA. 1988. Cross-linked adducts formed on reaction of formaldehyde with amino acids or glutathione, and deoxyribonucleosides or DNA [Abstract]. *Proc Am Assoc Cancer Res* 29:88.
- *Feron VJ, Bruyntjes JP, Woutersen RA, et al. 1988. Nasal tumours in rats after short-term exposure to a cytotoxic concentration of formaldehyde. *Cancer Lett* 39:101-111.
- *Feron VJ, Til HP and Woutersen RA. 1990. Letter to the Editor. *Toxicol Ind Health* 6:237-239.
- *Feron VJ, Til HP, de Vrijer F, et al. 1991. Aldehydes: occurrence, carcinogenic potential, mechanism of action and risk assessment. *Mutat Res* 259:363-385.
- *Ferry DG, Temple WA, McQueen EG. 1980. Methanol monitoring: Comparison of urinary methanol concentration with formic acid excretion rate as a measure of occupational exposure. *Int Arch Occup Environ Health* 47:155-163.
- Finlayson-Pitts BJ, Pitts JNJ. 1993. Atmospheric chemistry of tropospheric ozone formation: Scientific and regulatory implications. *J Air Waste Manage Assoc* 43:1091-1100.
- *Fischer T, Andersen K, Bengesson U, et al. 1995. Clinical standardization of the TRUE Test formaldehyde patch. *Curr Probl Dermatol* 22:24-30.
- *Fishbein L. 1992. Exposure from occupational versus other sources. *Scand J Work Environ Health* 18:5-16.
- *Fleig I, Petri N, Stocker WG, et al. 1982. Cytogenetic analyses of blood lymphocytes of workers exposed to formaldehyde in formaldehyde manufacturing and processing. *J Occup Med* 24:1009-1012.
- *Fleisher JM. 1987. Medical students' exposure to formaldehyde in gross anatomy laboratories. *N Y State J Med* 87:385-388.
- Florence E, Milner DF. 1981. Determination of free and loosely protein-bound formaldehyde in the tissues of pigs fed formalin-treated skim milk as a protein supplement. *J Sci Food Agric* 32:288-292.
- *Flyvholm MA. 1991. Contact allergens in registered chemical products. *Contact Dermatitis* 25:49-56.
- *Flyvholm M-A, Hall BM, Agner T, et al. 1997. Threshold for occluded formaldehyde patch test in formaldehyde-sensitive patients: Relationship to repeated open application test with a product containing formaldehyde releaser. *Contact Dermatitis* 36:26-33.

8. REFERENCES

- Fontignie-Houbrechts N. 1981. Genetic effects of formaldehyde in the mouse. *Mutat Res* 88:109-114.
- Fontignie-Houbrechts N, Moutschen-dahmen M, Degraeve N, et al. 1982. Genetic effects in the mouse of formaldehyde in combination with adenosine and hydrogen peroxide. *Mutat Res* 104:371-376.
- *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.
- Fowler JF, Skinner SM, Belsito DV. 1992. Allergic contact dermatitis from formaldehyde resins in permanent press clothing: An underdiagnosed cause of generalized dermatitis. *J Am Acad Dermatol* 27:962-968.
- Frakes RA, Sharma RP, Willhite CC. 1986. Comparative metabolism of linamarin and amygdalin in hamsters. *Food Cosmet Toxicol* 24:417-420.
- Franke JP, Wijsbeek J, deZeeuw RA, et al. 1988. Systematic analysis of solvents and other volatile substances by gas chromatography. *J Anal Toxicol* 12:20-24.
- *Frazelle JH, Abernethy DJ, Boreiko CJ. 1983. Weak promotion C3H/10T $\frac{1}{2}$ cell transformation by repeated treatments with formaldehyde. *Cancer Res* 43:3236-3239.
- *Freestone J, Bentley A. 1989. Case of formaldehyde poisoning. *Br J Pharm Pract* 11:20-21.
- Freidman G D, Ury HK. 1983. Screening for possible drug carcinogenicity: Second report of findings. *J Natl Cancer Inst* 71:1165-1175.
- French D, Edsall JT. 1945. The reactions of formaldehyde with amino acids and proteins. *Adv Protein Chem* 2:277-335.
- FSTRAC. 1990. Summary of state and federal drinking water standards and guidelines. U.S. Environmental Protection Agency. Chemical Communications Subcommittee, Federal State Toxicology and Regulatory Alliance Committee.
- Fugas M. 1985. [Radon and formaldehyde the conclusions and recommendations of WHO]. *Zast Atmos* 13:134-135. (Russian)
- Fuji T, Tonomura K. 1972. Oxidation of methanol, formaldehyde and formate by a *candida* species. *Agric Biol Chem* 36:2297-2306.
- Fujimaki H, Imai T, Befus D. 1992a. Mast cell response to formaldehyde: 2. Induction of stress-like proteins. *Int Arch Allergy Immunol* 98:332-338.
- Fujimaki H, Kawagoe A, Bissonnette E, et al. 1992b. Mast cell response to formaldehyde: 1. Modulation of mediator release. *Int Arch Allergy Immunol* 98:324-331.
- Furihata C, Yamakoshi A, Matsushima T. 1988. Inductions of ornithine decarboxylase and DNA synthesis in rat stomach mucosa by formaldehyde. *Jpn J Cancer Res* 79:917-920.

8. REFERENCES

- Furuta R, Doi T. 1994. Chiral separation of diniconazole, uniconazole and structurally related compounds by cyclodextrin-modified micellar electrokinetic chromatography. *Electrophoresis* 15:1322-1325.
- *Gaffney JS, Marley NA, Martin RS, et al. 1997. Potential air quality effects of using ethanol-gasoline fuel blends: A field study in Albuquerque, New Mexico. *Environ Sci Technol* 31:3053-3061.
- Gailhofer G, Binder H. 1988. Allergic contact dermatitis caused by an acetone-formaldehyde condensate. *Contact Dermatitis* 18:110-111.
- *Galli CL, Ragusa C, Resmini P, et al. 1983. Toxicological evaluation in rats and mice of the ingestion of a cheese made from milk with added formaldehyde. *Food Chem Toxicol* 21:313-317.
- Galloway JN, Artz RS, Dayan U, et al. 1988. WATOX-85: An aircraft and ground sampling program to determine the transport of trace gases and aerosols across the western Atlantic Ocean. *Atmos Environ* 22:2345-2360.
- *Galloway SM, Bloom AD, Resnick M, et al. 1985. Development of standard protocol for in vitro cytogenetic testing with Chinese hamster ovary cells: Comparison of results of 22 compounds in two laboratories. *Environ Mutagen* 7:1-51.
- *Gammage RB, Hawthorne AR. 1985. Current status of measurement techniques and concentrations of formaldehyde in residences. In: Jacobs VA, ed. *Indoor air and human health*. New York, NY: Lewis Publishers, Inc., 117-130.
- *Gannon PFG, Campbells M, O'Hickey SP, et al. 1995. Occupational asthma due to glutaraldehyde and formaldehyde in endoscopy and x ray departments. *Thorax* 50:156-159.
- Garcia JP, Beyne-Masclat S, Mouvier G. 1992. Emissions of volatile organic compounds by coal-fired power stations. *Atmos Environ* 26A:1589-1597.
- Garcia Bracamonte B, Ortiz de Frutos FJ, Iglesias Diez L. 1995. Occupational allergic contact dermatitis due to formaldehyde and textile finish resins. *Contact Dermatitis* 33:139-140.
- *Gardner MJ, Pannett B, Winter PD, et al. 1993. A cohort study of workers exposed to formaldehyde in the British chemical industry: an update. *Br J Ind Med* 50:827-834.
- *Garry VF, Kreiger RA, Wiencke JK. 1981. The mutagenic and cytotoxic effects of formaldehyde in cultured human lymphocytes [Abstract]. *Environ Mutagen* 3:341.
- *Garry VF, Oatman L, Pleus R, et al. 1980. Formaldehyde in the home: Some environmental disease perspectives. *Minn Med* 63:107-111.
- Gaylor DW. 1983. Mathematical approaches to risk assessment: Squamous cell nasal carcinoma in rats exposed to formaldehyde vapor. In: Gibson JE, ed. *Formaldehyde Toxicity*. Washington, DC: Hemisphere Publishing Corporation, 279-283.
- Gaylor DW. 1992. Incidence of developmental defects at the no observed adverse effect level (NOAEL). *Regul Toxicol Pharmacol* 15:151-160.

8. REFERENCES

- Geier J, Lessmann H, Schnuch A, et al. 1997. [Contact allergy due to formaldehyde-releasing biocides]. *Allergologie* 20:215-224. (German).
- *Gerberich HR, Stautzenberger AL, Hopkins WC. 1980. Formaldehyde. In: Kirk-Othmer Encyclopedia of chemical technology. New York, NY: John Wiley & Sons, 231-250.
- Gerhold RM, Malaney GW. 1966. Structural determinants in the oxidation of aliphatic compounds by activated sludge. *J Water Pollut Control Fed* 38:562-579.
- *Gerin M, Siemiacki J, Nadon L, et al. 1989. Cancer risks due to occupational exposure to formaldehyde: Results of a multi-site case-control study in Montreal, Canada. *Int J Cancer* 44:53-58.
- Gescher A, Hickman JA, Stevens MFG. 1979. Oxidative metabolism of some n-methyl containing xenobiotics can lead to stable progenitors of formaldehyde. *Biochem Pharmacol* 28:3235-3238.
- *Glass LR, Connor TH, Theiss JC, et al. 1986. Genotoxic evaluation of the offgassing products of particle board. *Toxicol Lett* 31:75-83.
- *Glaze WH, Koga M, Cancilla D. 1989. Ozonation byproducts 2. Improvement of an aqueous phase derivatization method for detection of formaldehyde and other carbonyl compounds formed by the ozonation of drinking water. *Environ Sci Technol* 23:838-847.
- Godish T. 1989. Formaldehyde exposures from tobacco smoke: A review. *Am J Public Health* 79:1044-1045.
- Godish T, Fell J, Lincoln P. 1984. Formaldehyde levels in New Hampshire urea - formaldehyde foam insulated houses. Relationship to outdoor temperature. *J Air Pollut Control Assoc* 34:1051-1052.
- Goering PL. 1989. Acute exposure to formaldehyde induces hepatic metallothionein synthesis in mice. *Toxicol Appl Pharmacol* 98:325-337.
- *Gold KW, Naugle DF, Berry MA. 1993. Indoor concentrations of environmental carcinogens. In: Seifert B, van de Wiel HJ, O'Neill IK, ed. *Environmental carcinogens: Methods of analysis and exposure measurement* (IARC Scientific Publications No. 109). Lyon: International Agency for Research on Cancer, 41-71.
- *Goldmacher VS, Thilly WG. 1983. Formaldehyde is mutagenic for cultured human cells. *Mutat Res* 116:417-422.
- Goldstein E, Lippert W. 1985. Cellular acid phosphatase activity: correlation of cytochemical and biochemical measurements. *Histochem J* 17:381-386.
- Goodman JI, Trephty TR. 1971. A comparison of rat and human liver formaldehyde dehydrogenase. *Biochim Biophys Acta* 252:489-505.
- Gordon T, Harkema JR. 1995. Mucous cell metaplasia in the airways of rats exposed to machining fluids. *Fundam Appl Toxicol* 28:274-282.
- Goris JA, Ang S, Navarro C. 1998. Minimizing the toxic effects of formaldehyde. *Lab Med* 29:39-42.

8. REFERENCES

- *Gorski P, Tarkowski M, Krakowiak A, et al. 1992. Neutrophil chemiluminescence following exposure to formaldehyde in healthy subjects and in patients with contact dermatitis. *Allergol Immunopathol (Madr)* 20:20-23.
- *Gossel TA, Bricker JD. 1994. *Principles of clinical toxicology*. 3rd ed. New York, NY: Raven Press.
- *Gottschling LM, Beaulieu HJ, Melvin WW. 1984. Monitoring of formic acid in urine of humans exposed to low levels of formaldehyde. *Am Ind Hyg Assoc J* 45:19-23.
- Grabinska-Loniewska A. 1974. Studies on the activated sludge bacteria participating in the biodegradation of methanol, formaldehyde and ethylene glycol: Part II. Utilization of various carbon and nitrogen compounds. *Acta Microbiol Pol Ser B* 6:83-88.
- Graedel TE, McGill R. 1986. Degradation of materials in the atmosphere: Common materials are vulnerable to atmospheric attack. *Environ Sci Technol* 20:1093-1100.
- *Grafstrom RC, Fornace AJ, Autrup H, et al. 1983. Formaldehyde damage to DNA and inhibition of DNA repair in human bronchial cells. *Science* 220:216-218.
- *Grafstrom RC, Curren RD, Yang LL, et al. 1985. Genotoxicity of formaldehyde in cultured human bronchial fibroblasts. *Science* 228:89-91.
- *Grafstrom RC, Fornace A, Harris CC. 1984. Repair of DNA damage caused by formaldehyde in human cells. *Cancer Res* 44:4323-4327.
- *Graftstrom RC, Hsu I-C, Harris CC. 1993. Mutagenicity of formaldehyde in Chinese hamster lung fibroblasts: Synergy with ionizing radiation and n-nitroso-n-methylurea. *Chem Biol Interact* 86:41-49.
- *Grammar LC, Harris KE, Shaughnessy MA, et al. 1990. Clinical and immunologic evaluation of 37 workers exposed to gaseous formaldehyde. *J Allergy Clin Immunol* 86:177-181.
- Graves RJ, Trueman P, Jones S, et al. 1996. DNA sequence analysis of methylene chloride-induced HPRT mutations in Chinese hamster ovary cells: Comparison with the mutation spectrum obtained for 1,2-dibromoethane and formaldehyde. *Mutagenesis* 11:229-233.
- *Grazuleviciene R, Dulskiene V, Vencloviene J. 1998. Formaldehyde exposure and low birth weight incidence. *J Occup Health* 40:61-67.
- Green DJ, Kulle TJ. 1986. Generation and measurement of formaldehyde in exposure chambers. *Am Ind Hyg Assoc J* 47:505-508.
- Green DJ, Bascom R, Healey EM, et al. 1989. Acute pulmonary response in healthy, nonsmoking adults to inhalation of formaldehyde and carbon. *J Toxicol Environ Health* 28:261-275.
- *Green DJ, Sauder LR, Kulle TJ, et al. 1987. Acute response to 3.0 ppm formaldehyde in exercising health nonsmokers and asthmatics. *Am Rev Respir Dis* 135:1261-1266.
- Green MA, Egle JJJ. 1983. Effects of intravenous acetaldehyde, acrolein, formaldehyde and propionaldehyde on arterial blood pressure following acute guanethidine treatment. *Res Commun Chem Pathol Pharmacol* 40:337-340.

8. REFERENCES

- Greenberg SR. 1982. Nucleic acid relationships in formalin-injured renal tubules. *Proc Inst Med Chicago* 35:83-84.
- *Grosjean D. 1982. Formaldehyde and other carbonyls in Los Angeles ambient air. *Environ Sci Technol* 16:254-262.
- *Grosjean D, Wright B. 1983. Carbonyls in urban fog, ice fog, cloudwater and rainwater. *Atmos Environ* 17:2093-2096.
- *Grosjean D, Swanson RD, Ellis C. 1983. Carbonyls in Los Angeles air: Contribution of direct emissions and photochemistry. *Sci Total Environ* 29:65-85.
- *Grosjean E, Grosjean D, Fraser MP, et al. 1996. Air quality model evaluation data for organics. 2. C₁-C₁₄ carbonyls in Los Angeles air. *Environ Sci Technol* 30:2687-2703.
- *Grosjean E, Williams ELII, Grosjean D. 1993. Ambient levels of formaldehyde and acetaldehyde in Atlanta, Georgia. *J Air Waste Manage Assoc* 43:469-474.
- Gross AF, Given PSJ, Athnasios AK. 1987. *Food. Anal Chem* 59:212R-252R.
- Gross EA, Morgan KT. 1991. Architecture of nasal passages and larynx. In: Parent RA, ed. *Comparative biology of the normal lung*. Boca Raton, FL: CRC Press, 7-25.
- Groten JP, Schoen ED, Van Bladeren PJ, et al. 1997. Subacute toxicity of a mixture of nine chemicals in rats: Detecting interactive effects with a fractionated two-level factorial design. *Fundam Appl Toxicol* 36:15-29.
- Gryllaki-Berger M, Mugny C, Perrenoud D, et al. 1992. A comparative study of formaldehyde detection using chromotropic acid, acetylacetone and HPLC in cosmetics and household cleaning products. *Contact Dermatitis* 26:149-154.
- Guengerich FP. 1995. Influence of nutrients and other dietary materials on cytochrome P-450 enzymes. *Am J Clin Nutr* 61(suppl):651S-658S.
- Guicherit R, Schulting FL. 1985. The occurrence of organic chemicals in the atmosphere of the Netherlands. *Sci Total Environ* 43:193-219.
- Guillot JP, Gonnet JF. 1985. The epicutaneous maximization test. *Curr Probl Dermatol* 14:220-247.
- Guseva VA. 1972. [Gonadotropic effect of formaldehyde on male rats during its simultaneous induction with air and water]. *Gig Sanit* 10:102-103. (Russian)
- Gustavsson P, Jakobsson R, Johansson H, et al. 1998. Occupational exposures and squamous cell carcinoma of the oral cavity, pharynx, larynx, and oesophagus: a case-control study in Sweden. *Occup Environ Med* 55:393-400.
- *Guzelian PS, Henry CJ, Olin SS. 1992. *Similarities and Differences between children and adults: Implications for risk assessment*. Washington, DC: International Life Sciences Institute Press.
- Haddad LM and Winchester JF. 1990. *Clinical Management of Poisoning and Drug Overdose* (2nd edition). Philadelphia, PA: WB Saunders.

8. REFERENCES

- Haggard HW, Greenberg LA. 1939. Studies in the absorption, distribution and elimination of alcohol. IV. The elimination of methyl alcohol. *J Pharmacol Exp Ther* 66:479-496.
- Hagmar L, Bellander T, Englander V, et al. 1986. Mortality and cancer morbidity among workers in a chemical factory. *Scand J Work Environ Health* 12:545-551.
- Hagmar L, Bellander T, Hogstedt B, et al. 1988a. Biological effects in a chemical factory with mutagenic exposure: I. Cytogenic and haematological parameters. *Int Arch Occup Environ Health* 60:437-444.
- Hagmar L, Bellander T, Persson L, et al. 1988b. Biological effects in a chemical factory with mutagenic exposure: III. Urinary mutagenicity and thioether excretion. *Int Arch Occup Environ Health* 60:453-456.
- Hagmar L, Nielsen J, Skerfving S. 1987. Clinical features and epidemiology of occupational obstructive respiratory disease caused by small molecular weight organic chemicals. In: Schlumberger HD, ed. *Epidemiology of allergic diseases*. Basel: Karger, 42-58.
- *Hall A, Harrington JM, Aw T-C. 1991. Mortality study of British pathologists. *Am J Ind Med* 20:83-89.
- Hallier E, Schroder KR, Asmuth K, et al. 1994. Metabolism of dichloromethane (methylene chloride) to formaldehyde in human erythrocytes: influence of polymorphism of glutathione transferase theta (GST T1-1). *Arch Toxicol* 68:423-427.
- Halperin WE, Goodman M, Stayner L, et al. 1983. Nasal cancer in a worker exposed to formaldehyde. *JAMA, J Am Med Assoc* 249:510-512.
- Hansen ES. 1991. Cancer mortality among Danish molders. *Am J Ind Med* 20:401-409.
- *Hansen J, Olsen JH. 1995. Formaldehyde and cancer morbidity among male employees in Denmark. *Cancer Causes Control* 6:354-360.
- Hansen J, Olsen JH. 1996. [Occupational exposure to formaldehyde and risk of cancer.]. *Ugeskr Laeg* 158:4191-4194. (Danish).
- Hansen J, Olsen JH, Larsen AI. 1994. Cancer morbidity among employees in a Danish pharmaceutical plant. *Int J Epidemiol* 23:891-898.
- Hanst PL, Gay BWJ. 1977. Photochemical reactions among formaldehyde, chlorine, and nitrogen dioxide in air. *Environ Sci Technol* 11:1105-1109.
- *Hare DA, Groah WJ, Schweer LG, et al. 1996. Evaluating the contribution of UF-bonded building materials to indoor formaldehyde levels in a newly constructed house. Presented at Washington State University 30th Annual Particleboard/Composite Materials Symposium, Pullman, WA.
- Hargis KM, Tillery MI, Ettinger HJ, et al. 1986. Industrial hygiene study of a true *in situ* oil shale retorting facility. *Am Ind Hyg Assoc J* 47:455-464.
- Harley RA, Cass GR. 1994. Modeling the concentrations of gas-phase toxic organic air pollutants: Direct emissions and atmospheric formation. *Environ Sci Technol* 28:88-98.

8. REFERENCES

- Harman AE, Voigt JM, Frame SR, et al. 1997. Mitogenic responses of rat nasal epithelium to hexamethylphosphoramide inhalation exposure. *Mutat Res* 380:155-165.
- *Harrington JM, Oakes D. 1984. Mortality study of British pathologists: 1974-1980. *Br J Ind Med* 41:188-191.
- *Harrington JM, Shannon HS. 1975. Mortality study of pathologists and medical laboratory technicians. *Br Med J* 4:329-332.
- Harris C, Kenneway M, Lee E, et al. 1995. Formaldehyde embryotoxicity in mouse conceptuses grown in whole embryo culture [Abstract]. *Toxicologist* 1:162.
- Harris DK. 1953. Health problems in the manufacture and use of plastics. *Br J Ind Med* 10:255-268.
- *Harving H, Korsgaard J, Dahl R, et al. 1986. Low concentrations of formaldehyde in bronchial asthma: a study of exposure under controlled conditions. *Br Med J* 293:310.
- *Harving H, Korsgaard J, Pedersen OF, et al. 1990. Pulmonary function and bronchial reactivity in asthmatics during low-level formaldehyde exposure. *Lung* 168:15-21.
- Hasegawa T, Tsuji M, Nakayama S, et al. 1993. [Effects of disinfectants on erythrocytes and isolated hepatocytes from rats and surface tension]. *Folia Pharmacol Jpn* 101:337-347. (Japanese)
- Haselkorn R, Doty P. 1961. The reaction of formaldehyde with polynucleotides. *J Biol Chem* 236:2738-2745.
- Hasselmann A, Kolmael KF. 1995. [Occupational dermatoses of cleaning staff]. *Arbeitsmed Sozialmed Umweltmed* 30:106-120. (German)
- Hastie AT. 1986. Inhibition of mammalian ciliary activity by formaldehyde [Abstract]. *Am Rev Respir Dis* 133:A-84.
- Hastie AT, Patrick H, Fish JE. 1990. Inhibition and recovery of mammalian respiratory ciliary function after formaldehyde exposure. *Toxicol Appl Pharmacol* 102:282-291.
- *Hatch GG, Conklin PM, Christensen CC, et al. 1983. Synergism in the transformation of hamster embryo cells treated with formaldehyde and adenovirus. *Environ Mutagen* 5:49-57.
- Hatch KL, Maibach HI. 1986. Textile chemical finish dermatitis. *Contact Dermatitis* 14:1-13.
- Hatch KL, Maibach HI. 1995. Textile dermatitis: an update. (I). Resins, additives and fibers. *Contact Dermatitis* 32:319-326.
- *Hatfield R. 1957. Biological oxidation of some organic compounds. *Ind Eng Chem* 49:192-196.
- *Haworth S, Lawlor T, Mortelmans K, et al. 1983. Salmonella mutagenicity test results for 250 chemicals. *Environ Mutagen* 5(Suppl. 1):3-142.
- *Hawthorne AR, Dudney CS, Cohen MA, et al. 1986a. Multipollutant indoor air quality study of 300 homes in Kingston/Barriman, Tennessee: Study design [Abstract]. *Abstr Pap Am Chem Soc* 192:ENVR 96.

8. REFERENCES

- *Hawthorne AR, Gammage RB, Dudney CS. 1986b. An indoor air quality study of 40 east Tennessee homes. *Environ Int* 12:221-239.
- *Hayashi T, Reece CA, Shibamoto T. 1986. Gas chromatographic determination of formaldehyde in coffee via thiazolidine derivative. *J Assoc Off Anal Chem* 69:101-105.
- *Hayes RB, Blair A, Stewart PA, et al. 1990. Mortality of U.S. embalmers and funeral directors. *Am J Ind Med* 18:641-652.
- Hayes RB, Klein S, Suruda A, et al. 1997. O⁶-alkylguanine DNA alkyltransferase activity in student embalmers. *Am J Ind Med* 31:361-365.
- *Hayes RB, Raatgever JW, De Bruyn A, et al. 1986. Cancer of the nasal cavity and paranasal sinuses, and formaldehyde exposure. *Int J Cancer* 37:487-492.
- *HazDat. 1996. Agency for Toxic Substances and Disease Registry (ATSDR), Atlanta, GA.
- He JL, Jin LF, Jin HY. 1998. Detection of cytogenic effects in peripheral lymphocytes of students exposed to formaldehyde with cytokinesis-blocked micronucleus assay. *Biomed Environ Sci* 11:87-92.
- Healey EM, Bascom R, Sauder L, et al. 1987. Acute pulmonary response in healthy non-smoking adults to inhalation of carbon and formaldehyde [Abstract]. *Am Rev Respir Dis* 135:A58.
- Hecht SS. 1984. Chemical carcinogenesis: An overview. *Clin Physiol Biochem* 3:89-97.
- *Heck Hd'A, Casanova M. 1987. Isotope effects and their implications for the covalent binding of inhaled [³H]- and [¹⁴C]formaldehyde in the rat nasal mucosa. *Toxicol Appl Pharmacol* 89:122-134.
- *Heck Hd'A, Casanova M. 1994. Nasal dosimetry of formaldehyde: Modeling site specificity and the effects of preexposure. *Inhal Toxicol* 6:159-175.
- Heck Hd'A, Casanova-Schmitz M. 1983. Biochemical toxicology of formaldehyde. In: Hodgson, Bend, Philpot, ed. *Reviews in biochemical toxicology*. New York, NY: Elsevier, 155-189.
- Heck Hd'A, Keller DA. 1988. Toxicology of formaldehyde. *ISI Atlas Sci Pharmacol* 2:5-9.
- Heck Hd'A, Casanova M, McNulty MJ, et al. 1986. Mechanisms of nasal toxicity induced by formaldehyde and acrolein. In: Barrow CS, ed. *Toxicology of the nasal passages*. Washington, DC: Hemisphere Publishing Corporation, 235-247.
- *Heck Hd'A, Casanova M, Starr TB. 1990. Formaldehyde toxicity - new understanding. *CRC Crit Rev Toxicol* 20:397-426.
- *Heck Hd'A, Casanova M, Steinhagen WH et al. 1989. DNA-protein cross-linking studies in rats and nonhuman primates. In: Feron VJ and Bosland MC, eds. *Nasal carcinogenesis in rodents: Relevance to human health risk*. The Netherlands: Pudoc Wageningen, 159-164. (Cited in EPA, 1991a)
- *Heck Hd'A, Casanova-Schmitz M, Dodd PB, et al. 1985. Formaldehyde (CH₂O) concentrations in the blood of humans and Fischer-344 rats exposed to CH₂O under controlled conditions. *Am Ind Hyg Assoc J* 46:1-3.

8. REFERENCES

- *Heck Hd'A, Chin TY, Schmitz MC. 1983. Distribution of [¹⁴C] formaldehyde in rats after inhalation exposure. In: Gibson JE, ed. Formaldehyde toxicity. Washington, DC: Hemisphere Publishing Corporation, 26-37.
- *Heck Hd'A, White EL, Casanova-Schmitz M. 1982. Determination of formaldehyde in biological tissues by gas chromatography/mass spectrometry. *Biomed Mass Spectrom* 9:347-353.
- Hedge A, Erickson WA, Rubin G. 1994. The effects of alternative smoking policies on indoor air quality in 27 office buildings. *Ann Occup Hyg* 38:265-278.
- Heinzow B, Elltorr T. 1992. [Formic acid in urine: An useful indicator in environmental medicine?]. *Zentralbl Hyg Umweltmed* 192:455-461. (German)
- Helander I. 1977. Contact urticaria from leather containing formaldehyde. *Arch Dermatol* 113:1443.
- Helander KG. 1994. Kinetic studies of formaldehyde binding in tissue. *Biotechnic Histochem* 69:177-179.
- Hellawell JM. 1988. Toxic substances in rivers and streams. *Environ Pollut* 50:61-85.
- *Helrich K. 1990. 964.1 Formaldehyde in maple sirup: Spectrophotometric method. In: Helrich K, ed. Official methods of analysis of the Association of Official Analytical Chemists. Arlington, VA: Association of Official Analytical Chemists, Inc., 1037-1038.
- Hemminki K. 1984. Urinary excretion products of formaldehyde in the rat. *Chem Biol Interact* 48:243-248.
- Hemminki K, Kyyronen P, Lindbohm M-L. 1985. Spontaneous abortions and malformations in the offspring of nurses exposed to anaesthetic gases, cytostatic drugs, and other potential hazards in hospitals, based on registered information of outcome. *J Epidemiol Commun Health* 39:141-147.
- *Hendrick DJ, Lane DJ. 1975. Formalin asthma in hospital staff. *Br Med J* 1:607-608.
- *Hendrick DJ, Lane DJ. 1977. Occupational formalin asthma. *Br J Ind Med* 34:11-18.
- *Hendrick DJ, Rando RJ, Lane DJ, et al. 1982. Formaldehyde asthma: Challenge exposure levels and fate after five years. *J Occup Med* 24:893-897.
- Herbert FA, Hessel PA, Melenka LS, et al. 1994. Respiratory consequences of exposure to wood dust and formaldehyde of workers manufacturing oriented strand board. *Arch Environ Health* 49:465-470.
- Herbert FA, Hessel PA, Melenka LS, et al. 1995. Pulmonary effects of simultaneous exposures to MDI formaldehyde and wood dust on workers in an oriented strand board plant. *J Occup Environ Med* 37:461-465.
- *Hernberg S, Collan Y, Degerth R, et al. 1983a. Nasal cancer and occupational exposures: Preliminary report of a joint Nordic case-referent study. *Scand J Work Environ Health* 9:208-213.
- *Hernberg S, Westerholm P, Schultz-Larsen K, et al. 1983b. Nasal and sinonasal cancer: Connection with occupational exposures in Denmark, Finland and Sweden. *Scand J Work Environ Health* 9:315-326.

8. REFERENCES

- Herrera JM, Nieves AJ, Gutierrez MDP, et al. 1997. [Citotoxicity produced by formaldehyde (atmospheric contaminant) in the rat central nervous system]. *Rev Mex Cienc Farm* 28:21-27. (Spanish).
- Hess SM, Fitzhugh OG. 1955. Absorption and excretion of certain triphenyl-methane colors in rats and dogs. *J Pharmacol Exp Ther* 114:38-42.
- *Heukelekian H, Rand MC. 1955. Biochemical oxygen demand of pure organic compounds. *Sewage Ind Waste* 27:1040-1053.
- Hileman B. 1983. Indoor air pollution. *Environ Sci Technol* 17:469A-472A.
- *Hilton J, Dearman RJ, Basketter DA, et al. 1996. Experimental assessment of the sensitizing properties of formaldehyde. *Food Chem Toxicol* 34:571-578.
- Hilton J, Dearman RJ, Harvey P, et al. 1998. Estimation of relative skin sensitizing potency using the local lymph node assay: A comparison of formaldehyde with glutaraldehyde. *Contact Dermatitis* 9:29-33.
- *Ho MH, Richards RA. 1990. Enzymatic method for the determination of formaldehyde. *Environ Sci Technol* 24:201-204.
- *Hodgson AT, Wooley JD, Daisey JM. 1993. Emissions of volatile organic compounds from new carpet measured in a large scale environmental chamber. *J Air Waste Manage Assoc* 43:316-324.
- Hogue CJ, Brewster MA. 1991. The potential of exposure biomarkers in epidemiologic studies of reproductive health. *Environ Health Perspect* 90:261-269.
- Holcatova I, Bencko V. 1997. Health aspects of formaldehyde in the indoor environment. Czech and Slovak experience. *Cent Eur J Public Health* 5:38-42.
- Holly EA, Aston DA, Ahn DK, et al. 1996. Intraocular melanoma linked to occupations and chemical exposures. *Epidemiology* 7:55-61.
- Holmstrom M, Lund VJ. 1991. Malignant melanomas of the nasal cavity after occupational exposure to formaldehyde. *Br J Ind Med* 48:9-11.
- Holmstrom M, Wilhelmsson B. 1988. Respiratory symptoms and pathophysiological effects of occupational exposure to formaldehyde and wood dust. *Scand J Work Environ Health* 14:306-311.
- *Holmstrom M, Rynnel-Dagoo B, Wilhelmsson B. 1989b. Antibody production in rats after long-term exposure to formaldehyde. *Toxicol Appl Pharmacol* 100:328-333.
- Holmstrom M, Wilhelmsson B, Hellquist H. 1989a. Histological changes in the nasal mucosa in rats after long-term exposure to formaldehyde and wood dust. *Acta Otolaryngol (Stockh)* 108:274-283.
- *Holmstrom M, Wilhelmsson B, Hellquist H, et al. 1989c. Histological changes in the nasal mucosa in persons occupationally exposed to formaldehyde alone and in combination with wood dust. *Acta Otolaryngol (Stockh)* 107:120-129.
- *Holness DL, Nethercott JR. 1989. Health status of funeral service workers exposed to formaldehyde. *Arch Environ Health* 44:222-228.

8. REFERENCES

- Homma Y, Oyasu R. 1986. Transient and persistent hyperplasia in heterotopically transplanted rat urinary bladders induced by formalin and foreign bodies. *J Urol* 136:136-140.
- Homma Y, Nowels K, Oyasu R. 1986. Effects of formalin-induced injuries on urinary bladder carcinogenesis. *Cancer Lett* 32:17-23.
- *Hoogenboom BE, Hynes RW, Mann CM, et al. 1987. Validation of a colorimetric method for determination of atmospheric formaldehyde. *Am Ind Hyg Assoc J* 48:420-424.
- Hoover MD, Harkema JR, Muggenburg BA, et al. 1993. A microspray nozzle for local administration of liquids or suspensions to lung airways via bronchoscopy. *J Aerosol Med* 6:67-72.
- Hopkins J. 1985. Formaldehyde epidemiology: A mouthful of uncertainty. *Food Chem Toxicol* 23:1024-1028.
- Horsfall FLJ. 1934. Formaldehyde hypersensitiveness. An experimental study. *J Immunol* 27:569-581.
- Horton V L, Higuchi MA, Rickert DE. 1992. Physiologically based pharmacokinetic model for methanol in rats, monkeys, and humans. *Toxicol Appl Pharmacol* 117:26-36.
- *Horvath EP, Anderson H, Pierce WE, et al. 1988. Effects of formaldehyde on the mucous membranes and lungs: A study of an industrial population. *JAMA, J Am Med Assoc* 259:701-707.
- *Hose JE, Lightner DV. 1980. Absence of formaldehyde residues in Penaeid shrimp exposed to formalin. *Aquaculture* 21:197-201.
- *Howard PH. 1989. Formaldehyde. In: Howard PH, ed. *Handbook of Environmental Fate and Exposure Data for Organic Chemicals*. Chelsea, MI : Lewis Publishers, 342-350.
- Howick CJ, McCarthy SA. 1996. Studies of possible chemical emissions from PVC articles used in indoor applications and the effect on indoor air quality. *J Vinyl Addit Technol* 2:134-142.
- Howlett CT, Mathias R, Friess S. 1989. Quantitative risk approaches for formaldehyde. *Exp Pathol* 37:119-127.
- Hoxey EV, Soper CJ, Davies DJG. 1985. Biological indicators for low temperature steam formaldehyde sterilization: Effect of defined media on sporulation, germination index and moist heat resistance at 110 degrees C of *bacillus* strains. *J Appl Bacteriol* 58:207-214.
- *HSDB. 1999. Hazardous Substance Data Bank. National Library of Medicine, National Toxicology Information Program, Bethesda MD. March 3, 1999.
- Hubal EAC, Schlosser PM, Conolly RB, et al. 1997. Comparison of inhaled formaldehyde dosimetry predictions with DNA-protein cross-link measurements in the rat nasal passages. *Toxicol Appl Pharmacol* 143:47-55.
- *Hurni H, Ohder H. 1973. Reproduction study with formaldehyde and hexamethylenetetramine in beagle dogs. *Food Cosmet Toxicol* 11:459-462.

8. REFERENCES

- *Hushon J, Clerman R, Small R, et al. 1980. An assessment of potentially carcinogenic energy-related contaminants in water. McLean, VA: Prepared for US Department of Energy and National Cancer Institute.
- Ianysheva NI, Balenko NV, Chernichenko IA, et al. 1998. [Characteristics of modifying effects of formaldehyde on carcinogenesis]. *Gig Sanit* 1:51-54. (Russian) [Translation in progress].
- *IARC. 1982. IARC monographs on the evaluation of carcinogenic risk of chemicals to humans. Vol. 29: Some industrial chemicals and dyestuffs. World Health Organization, Lyon, France.
- *IARC. 1987. IARC monographs on the evaluation of carcinogenic risk of chemicals to humans. Supp. 7: Overall evaluations of carcinogenicity: An updating of volumes 1 to 42. World Health Organization, Lyon, France.
- *IARC. 1995. IARC monographs on the evaluation of carcinogenic risk of chemicals to humans. Vol. 62: Wood dusts and formaldehyde. World Health Organization, Lyon, France.
- *Igawa M, Munger WJ, Hoffman MR. 1989. Analysis of aldehydes in cloud- and fogwater samples by HPLC with a postcolumn reaction detector. *Environ Sci Technol* 23:556-561.
- Imbus HR. 1985. Clinical evaluation of patients with complaints related to formaldehyde exposure. *J Allergy Clin Immunol* 76:831-840.
- Imbus HR. 1988. A review of regulatory risk assessment with formaldehyde as an example. *Regul Toxicol Pharmacol* 8:356-366.
- Infante PF, Schneiderman MA. 1986. Formaldehyde, lung cancer and bronchitis. *Lancet* 1:436-437.
- Infante PF, Ulsamer AG, Groth D, et al. 1981. Health hazards of formaldehyde. *Lancet* Oct. 31:980-982.
- Inour T, Ishiwata H, Yoshirhira K. 1987. Chemical, physical and microbiological indexes to the surface deterioration of melamine resin. *J Food Hyg Soc Jpn* 28:348-353.
- International Expert Panel on Carcinogen Risk Assessment. 1996. The use of mechanistic data in the risk assessments of ten chemicals: An introduction to the chemical-specific reviews. *Pharmacol Ther* 71:1-5.
- IRIS. 1995. Integrated Risk Information System (IRIS). Online. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH. October 1995.
- IRIS. 1998. Integrated Risk Information System (IRIS). Online. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH. November 1998. <http://www.epa.gov/ngispgm3/iris/subst>.
- *IRIS. 1999. Integrated Risk Information System (IRIS). Online. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH. April 1999. <http://www.epa.gov/ngispgm3/iris/subst>.

8. REFERENCES

- *IRPTC. 1985. Treatment and disposal methods for waste chemicals. International Registry of Potentially Toxic Chemicals. United Nations Environmental Programme, Geneva, Switzerland.
- Ito K, Sakamoto T, Hayashi Y, et al. 1996. Role of tachykinin and bradykinin receptors and mast cells in gaseous formaldehyde-induced airway microvascular leakage in rats. *Eur J Pharmacol* 307:291-298.
- *Iversen OH. 1986. Formaldehyde and skin carcinogenesis. *Environ Int* 12:541-544.
- *Iversen OH. 1988. Formaldehyde and skin tumorigenesis in Sencar mice. *Environ Int* 14:23-28.
- *Jankovic J, Jones W, Burkhart J, et al. 1991. Environmental study of firefighters. *Ann Occup Hyg* 35:581-602.
- Jarvholm B, Ljungkvist G, Laventius B, et al. 1995. Acetic aldehyde and formaldehyde in cutting fluids and their relation to irritant symptoms. *Ann Occup Hyg* 39:591-601.
- *Jeffcoat AR, Chasalow F, Feldman DB. 1983. Disposition of [¹⁴C] formaldehyde after topical exposure to rats, guinea pigs, and monkeys. In: Gibson JE, ed. *Formaldehyde toxicity*. Washington, DC: Hemisphere Publishing Corporation, 38-50.
- Jeng H-W, Feigal RJ, Messer HH. 1987. Comparison of the cytotoxicity of formocresol, formaldehyde, cresol, and glutaraldehyde using human pulp fibroblast cultures. *Pediatr Dent* 9:295-300.
- *Jensen OM, Andersen SK. 1982. Lung cancer risk from formaldehyde. *Lancet* 1:913.
- Ji C, Mirvish SS, Nickols J, et al. 1989. Formation of hydroxy derivative, aldehydes, and nitrite from n-nitrosomethyl-n-amylamine by rat liver microsomes and by purified cytochrome P-450 IIB1. *Cancer Res* 49:5299-5304.
- Jiang X-zhi, Zhang R-wen. 1988. The toxicity and potential risk of occupational exposure to formaldehyde. In: Xue S-Z, Liang Y-X, ed. *Occupational health in industrialization and modernization*. Shanghai: Shanghai Medical University Press, 70-74.
- *Johannsen FR, Levinskas GJ, Tegeris AS. 1986. Effects of formaldehyde in the rat and dog following oral exposure. *Toxicol Lett* 30:1-6.
- *Johanson CE. 1980. Permeability and vascularity of the developing brain: cerebellum vs cerebral cortex. *Brain Res* 190:3-16.
- Johansson EB, Tjalve H. 1978. The distribution of [¹⁴C] dimethylnitrosamine in mice. Autoradiographic studies in mice with inhibited and noninhibited dimethylnitrosamine metabolism and a comparison with the distribution of [¹⁴C]formaldehyde. *Toxicol Appl Pharmacol* 45:565-575.
- John EM, Savitz DA, Shy CM. 1994. Spontaneous abortions among cosmetologists. *Epidemiology* 5:147-155.
- Jones AW. 1987. Elimination half-life of methanol during hangover. *Pharmacol Toxicol* 60:217-220.
- Kalabokas P, Carlier P, Fresnet P, et al. 1988. Field studies of aldehyde chemistry in the Paris area. *Atmos Environ* 22:147-155.

8. REFERENCES

- *Kamata E. 1966. Aldehydes in lake and sea waters. *Bull Chem Soc Jpn* 39:1227-1229.
- *Kamata E, Nakadate M, Uchida O, et al. 1996a. Effects of formaldehyde vapor on the nasal cavity and lungs of F-344 rats. *J Environ Pathol Toxicol Oncol* 15:1-8.
- *Kamata E, Nakadate M, Ogawa Y, et al. 1996b. Acute inhalation toxicity study of formaldehyde in rats: Effect of vapor on the pulmonary surfactant. *Pharmacometrics* 51:33-37.
- *Kamata E, Nakadate M, Uchida O, et al. 1997. Results of a 28-month chronic inhalation toxicity study of formaldehyde in male Fischer-344 rats. *J Toxicol Sci* 22:239-254.
- Kamata E, Uchida O, Suzuki S, et al. 1984. Toxicological effects of some inhaled chemicals on the respiratory tract and the lungs of rats (first report) [Abstract]. *Toxicol Sci* 9:303.
- Kamata E, Uchida O, Suzuki S, et al. 1985. Toxicological effects of some inhaled chemicals on the respiratory tract and the lungs of rats (2nd report) [Abstract]. *Toxicol Sci* 10:258.
- Kaminski J, Atwal AS, Mahadevan S. 1993a. High performance liquid chromatographic determination of formaldehyde in milk. *J Liquid Chromatogr* 16:521-526.
- *Kaminski J, Atwal AS, Mahadevan S. 1993b. Determination of formaldehyde in fresh and retail milk by liquid column chromatography. *J Assoc Off Anal Chem* 76:1010-1013.
- *Kane LE, Alarie Y. 1977. Sensory irritation to formaldehyde and acrolein during single and repeated exposures in mice. *Am Ind Hyg Assoc J* 38:509-522.
- Kang KM, Corey G, Storrs FJ. 1995. Follow-up study of patients allergic to formaldehyde and formaldehyde releasers: Retention of information, compliance, course, and persistence of allergy. *Contact Dermatitis* 6:209-215.
- *Kao AS. 1994. Formation and removal reactions of hazardous air pollutants. *J Air Waste Manage Assoc* 44:683-696.
- *Karlberg A-T, Skare L, Lindberg I, et al. 1998. A method for quantification of formaldehyde in the presence of formaldehyde donors in skin-care products. *Contact Dermatitis* 38:20-28.
- Katakura Y, Kishi R, Okui T, et al. 1993. Distribution of radioactivity from ¹⁴C-formaldehyde in pregnant mice and their fetuses. *Br J Ind Med* 50:176-182.
- Katayama N, Honda Y, Fujimaki H. 1992. Growth and functional modifications in formaldehyde-treated mouse bone marrow-derived mast cells. *Toxicol in Vitro* 6:239-243.
- Keefe LK, Streeter AJ, Leung LY, et al. 1987. Pharmacokinetic and deuterium isotope effect studies on the metabolism of formaldehyde and formate to carbon dioxide in rats in vivo. *Drug Metab Dispos* 15:300-304.
- Keller DA, Heck Hd'A, Randall HW, et al. 1990. Histochemical localization of formaldehyde dehydrogenase in the rat. *Toxicol Appl Pharmacol* 106:311-326.
- *Kelly TJ, Mukund R, Spicer CW, et al. 1994. Concentrations and transformations of hazardous air pollutants. *Environ Sci Technol* 28:378A-387A.

8. REFERENCES

- *Kelly TJ, Satola JR, Smith DL. 1996. Emission Rates of Formaldehyde and Other Carbonyls from Consumer and Industrial Products Found in California Homes. In: Meas. Toxic Relat. Air Pollut., Proc. Int. Spec. Conf. Pittsburgh, PA: Air & Waste Management Association, 521-526.
- Kennedy G, Slaich PK, Golding BT, et al. 1996. Structure and mechanism of formation of a new adduct from formaldehyde and guanosine. *Chem Biol Interact* 102:93-100.
- *Kepler GM, Joyner DR, Fleishman A, et al. 1995. Method for obtaining accurate geometrical coordinates of nasal airways for computer dosimetry modeling and lesion mapping. *Inhal Toxicol* 7:1207-1224.
- *Kepler GM, Richardson RB, Morgan KT, et al. 1998. Computer simulation of inspiratory nasal airflow and inhaled gas uptake in a Rhesus monkey. *Toxicol Appl Pharmacol* 150:1-11.
- Kerns WD, Donofrio DJ, Pavkov KL. 1983a. The chronic effects of formaldehyde inhalation in rats and mice: A preliminary report. In: Gibson JE, ed. *Formaldehyde toxicity*. Washington, DC: Hemisphere Publishing Corporation, 111-131.
- *Kerns WD, Pavkov KL, Donofrio DJ, et al. 1983b. Carcinogenicity of formaldehyde in rats and mice after long-term inhalation exposure. *Cancer Res* 43:4382-4391.
- *Khamgaonkar MB, Fulare MB. 1991. Pulmonary effects of formaldehyde exposure - an environmental-epidemiological study. *Indian J Chest Dis Allied Sci* 33:9-13.
- Khamgaonkar MB, Fulare MB. 1992. Formaldehyde induced symptoms in medical laboratories. *Indian J Ind Med* 38:129-131.
- Kiec-Swierczynska M. 1995. [Preliminary assessment of the effect of disinfectants on skin changes in health service workers.]. *Med Pr* 46:149-150. (Polish)
- *Kiec-Swierczynska M. 1996. Occupational allergic contact dermatitis in Lodz: 1990-1994. *Occup Med* 48:205-208.
- *Kiefer M, Moss CE. 1997. Laser generated air contaminants released during laser cutting of fabrics and polymers. *J Laser Appl* 9:7-13.
- *Kilburn KH. 1994. Neurobehavioral impairment and seizures from formaldehyde. *Arch Environ Health* 49:37-44.
- Kilburn KH, Moro A. 1985. Reproductive and maternal effects of formaldehyde (HCHO) in rats [Abstract]. *Fed Proc* 44:535.
- *Kilburn KH, Warshaw RH. 1992. Neurobehavioral effects of formaldehyde and solvents on histology technicians: Repeated testing across time. *Environ Res* 58:134-146.
- *Kilburn KH, Warshaw R, Boylen CT, et al. 1985a. Pulmonary and neurobehavioral effects of formaldehyde exposure. *Arch Environ Health* 40:254-260.
- *Kilburn KH, Seidman BC, Warshaw BA. 1985b. Neurobehavioral and respiratory symptoms of formaldehyde and xylene exposure in histology technicians. *Arch Environ Health* 40:229-233.

8. REFERENCES

- *Kilburn KH, Warshaw R, Thornton JC. 1987. Formaldehyde impairs memory, equilibrium and dexterity in histology technicians: Effects which persist for days after exposure. *Arch Environ Health* 42:117-120.
- Kilburn KH, Warshaw R, Thornton JC. 1989. Pulmonary function in histology technicians compared with women from Michigan: effects of chronic low dose formaldehyde on a national sample of women. *Br J Ind Med* 46:468-472.
- *Kimbell JS, Gross EA, Joyner DR, et al. 1993. Application of computational fluid dynamics to regional dosimetry of inhaled chemicals in the upper respiratory tract of the rat. *Toxicol Appl Pharmacol* 121:253-263.
- *Kimbell JS, Gross EA, Richardson RB, et al. 1997a. Correlation of regional formaldehyde flux predictions with the distribution of formaldehyde-induced squamous metaplasia in F344 rat nasal passages. *Mutat Res* 380:143-154.
- *Kimbell JS, Subramaniam RP, Miller FJ. 1997b. Computer models of nasal airflow inhaled gas uptake in the rat, monkey, and human: Implications for interspecies dosimetry. *CIIT Act* 17:1-12.
- King JL, Rappaport SM. 1992. Application of an anova model to evaluate occupational exposure to formaldehyde [Abstract]. *Am Chem Soc Abstr Pap 203rd ACS National Meeting:CHAS* 37.
- *Kirchstetter TW, Singer BC, Harley RA, et al. 1996. Impact of oxygenated gasoline use on California light-duty vehicle emissions. *Environ Sci Technol* 30:661-670.
- *Kirschner EM. 1996. Growth of top 50 chemicals slowed in 1995 from very high 1994 rate. *Chem Eng News* 74:16-18.
- Kitaeva LV, Mikheeva EA, Shelomova LF, et al. 1996. [Genotoxic effect of formaldehyde in somatic human cells in vivo]. *Genetika* 32:1287-1290. (Russian) [Translation in progress]
- *Klaassen CD. 1996. Air pollution. In: Klaassen CD, Amdur MO, Doull J, ed. *Casarett and Doull's Toxicology: the basic science of poisons*. New York: McGraw-Hill, 877-878.
- Kleindienst TE, Hudgens EE, Smith DF, et al. 1993. Comparison of chemiluminescence and ultraviolet ozone monitor responses in the presence of humidity and photochemical pollutants. *J Air Waste Manage Assoc* 43:213-222.
- *Kleindienst TE, Shepson PB, Edney EO, et al. 1986. Wood smoke: Measurement of the mutagenic activities of its gas and particulate-phase photooxidation products. *Environ Sci Technol* 20:493-501.
- Klein-Szanto AJP, Ura H, Resau J. 1989. Formaldehyde-induced lesions of xenotransplanted human nasal respiratory epithelium. *Toxicol Pathol* 17:33-37.
- *Kligerman AD, Phelps MC, Erexsan GL. 1984. Cytogenetic analysis of lymphocytes from rats following formaldehyde inhalation. *Toxicol Lett* 21:241-246.
- Kline BS. 1925. Formaldehyde poisoning with report of a fatal case. *Arch Intern Med* 36:220-228.
- Koch P. 1995. Occupational contact dermatitis from colophony and formaldehyde in banknote paper. *Contact Dermatitis* 32:371-372.

8. REFERENCES

- *Kochhar R, Nanda V, Nagi B, et al. 1986. Formaldehyde-induced corrosive gastric cicatrization: Case report. *Hum Toxicol* 5:381-382.
- *Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human liver. *Biochemistry* 29:4430-4433.
- *Konopinski VJ. 1983. Formaldehyde in office and commercial environments. *Am Ind Hyg Assoc J* 44:205-208.
- Koo WWK, Kaplan LA, Krug-Wispe SK. 1988. Aluminum contamination of infant formulas. *JPEN, J Parenter Enteral Nutr* 12:170-173.
- *Koppel C, Baudisch H, Schneider V, et al. 1990. Suicidal ingestion of formalin with fatal complications. *Intensive Care Med* 16:212-214.
- *Korky JK, Schwarz SR, Lustigman BK. 1987. Formaldehyde concentrations in biology department teaching facilities. *Bull Environ Contam Toxicol* 18:907-910.
- *Kornbrust DJ, Bus JS. 1983. The role of glutathione and cytochrome P-450 in the metabolism of methyl chloride. *Toxicol Appl Pharmacol* 67:246-256.
- *Korpan YI, Gonchar MV, Starodub NF, et al. 1993. A cell biosensor specific for formaldehyde based on pH-sensitive transistors coupled to methylotrophic yeast cells with genetically adjusted metabolism. *Anal Biochem* 215:216-222.
- *Krakowiak A, Gorski P, Pazdrak K, et al. 1998. Airway response to formaldehyde inhalation in asthmatic subjects with suspected respiratory formaldehyde sensitization. *Am J Ind Med* 33:274-281.
- *Kramps JA, Peltenburg LTC, Kerklaan PRM, et al. 1989. Measurement of specific IgE antibodies in individuals exposed to formaldehyde. *Clin Exp Allergy* 19:509-514.
- Kranke B, Aberer W. 1997. [Severe anaphylactoid reactions to formaldehyde and paraformaldehyde in dentistry]. *Allergologie* 20:246-251. (German)
- Kranke B, Szolar-Platzer C, Aberer W. 1996. Reactions to formaldehyde and formaldehyde releasers in a standard series. *Contact Dermatitis* 35:192-193.
- Kreiger N. 1983. Formaldehyde and nasal cancer mortality. *Can Med Assoc J* 128:248-249.
- *Kreiger RA, Garry VF. 1983. Formaldehyde-induced cytotoxicity and sister-chromatid exchanges in human lymphocyte cultures. *Mutat Res* 120:51-55.
- *Kriebel D, Sama SR, Cocanour B. 1993. Reversible pulmonary responses to formaldehyde: A study of clinical anatomy students. *Am Rev Respir Dis* 148:1509-1515.
- *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 HJIII, 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.

8. REFERENCES

*Krivanek ND, Imbus HR. 1992. Formaldehyde - studies on irritation at low levels. *Comments Toxicol* 4:315-330.

Krokan H, Grafstrom RC, Sundqvist K, et al. 1985. Cytotoxicity, thiol depletion and inhibition of O⁶-methylguanine-DNA methyltransferase by various aldehydes in cultured human bronchial fibroblasts. *Carcinogenesis* 6:1755-1760.

*Krootila K, Uusitalo H, Lehtosalo JI, et al. 1986. Effect of topical chemical irritation on the blood-aqueous barrier of the right eye. *Ophthalmic Res* 18:248-252.

*Krzyzanowski M, Quackenboss JJ, Lebowitz MD. 1990. Chronic respiratory effects of indoor formaldehyde exposure. *Environ Res* 52:117-125.

Ku RH, Billings RE. 1986. The role of mitochondrial glutathione and cellular protein sulfhydryls in formaldehyde toxicity in glutathione-depleted rat hepatocytes. *Arch Biochem Biophys* 247:183-189.

*Kulle TJ. 1993. Acute odor and irritation response in health nonsmokers with formaldehyde exposure. *Inhal Toxicol* 5:323-332.

Kulle TJ, Green DJ, Sauder LR. 1986. Acute pulmonary effects of 3.0 ppm formaldehyde in exercising healthy nonsmokers and asthmatics [Abstracts]. *Am Rev Respir Dis* 133:A 355.

*Kulle TJ, Sauder LR, Hebel JR, et al. 1987. Formaldehyde dose-response in healthy nonsmokers. *J Air Pollut Control Assoc* 37:919-924.

*Kumar S. 1986. Reactive scavenging of pollutants by rain: A modeling approach. *Atmos Environ* 20:1015-1024.

Kuo HW, Jian GJ, Liu CS, et al. 1997. White blood cell count as an indicator of formaldehyde exposure. *Bull Environ Contam Toxicol* 59:261-267.

*Kuykendall JR, Trela BA, Bogdanffy MS. 1995. DNA-protein crosslink formation in rat nasal epithelial cells by hexamethylphosphoramide and its correlation with formaldehyde production. *Mutat Res* 343:209-218.

Ladanyi E, Stalder K. 1986. Differential pulse-polarographic determination of formaldehyde in lung surfactant. *Bioelectrochem Bioenerg* 15:89-93.

Lai Y-L. 1991. Comparative ventilation of the normal lung. In: Parent RA, ed. *Comparative biology of the normal lung*. Boca Raton, FL: CRC Press, 217-239.

*Lam C-W, Casanova M, Heck Hd'A. 1985. Depletion of nasal mucosal glutathione by acrolein and enhancement of formaldehyde-induced DNA-protein cross-linking by simultaneous exposure to acrolein. *Arch Toxicol* 58:67-71.

*Lamb B, Westberg H, Bryant P, et al. 1985. Air infiltration rates in pre- and post-weatherized houses. *J Air Pollut Control Assoc* 35:541-551.

Langhorst ML, Coyne LB. 1987. Industrial hygiene. *Anal Chem* 59:1R-17R.

8. REFERENCES

- *Lawryk NJ, Weisel CP. 1996. Concentrations of volatile organic compounds in the passenger compartments of automobiles. *Environ Sci Technol* 30:810-816.
- *Lawryk NJ, Lioy PJ, Weisel CP. 1995. Exposure to volatile organic compounds in the passenger compartment of automobiles during periods of normal and malfunctioning operation. *J Expo Anal Environ Epidemiol* 5:511-531.
- Le L, Ayer S, Place AR, et al. 1990. Analysis of formaldehyde-induced *Adh* mutations in *Drosophila* by RNA structure mapping and direct sequencing of PCR-amplified genomic DNA. *Biochem Gen* 28:367-387.
- Lee HK, Alarie Y, Karol MH. 1984. Induction of formaldehyde sensitivity in guinea pigs. *Toxicol Appl Pharmacol* 75:147-155.
- Lee Y-N, Zhou X. 1993. Method for the determination of some soluble atmospheric carbonyl compounds. *Environ Sci Technol* 27:749-756.
- *Leeder JS, Kearns GL. 1997. Pharmacogenetics in pediatrics: implications for practice. *Pediatr Clin North Am* 44:55-77.
- Lehotay J, Hromulakova K. 1994. HPLC determination of trace levels of aliphatic aldehydes C₁-C₄ in river and tap water using on-line preconcentration. *J Liquid Chromatogr* 17:579-588.
- Leikauf GD, Douppnik CA. 1989. Formaldehyde-induced bronchial hyperresponsiveness in guinea pig [Abstract]. *Am Rev Respir Dis* 139:A392.
- Leininger JR, Gross EA, Monticello TM, et al. 1995. Morphogenesis of formaldehyde-induced neoplastic nasal lesions in male F344 rats [Abstract]. *Proc Am Assoc Cancer Res* 36:130.
- *Lemiere C, Desjardins A, Cloutier Y, et al. 1995. Occupational asthma due to formaldehyde resin dust with and without reaction to formaldehyde gas. *Eur Resp J* 8:861-865.
- Le Moual N, Orlowski E, Schenker MB, et al. 1995. Occupational exposures estimated by means of job exposure matrices in relation to lung function in the PAARC survey. *Occup Environ Med* 52:634-643.
- *Leonardos G, Kendall D, Barnard N. 1969. Odor threshold determinations of 53 odorant chemicals. *J Air Pollut Control Assoc* 19:91-95.
- *Leovic KW, Sheldon LS, Whitaker DA, et al. 1996. Measurement of indoor air emissions from dry-process photocopy machines. *J Air Waste Manage Assoc* 46:821-829.
- *Leung H-W. 1993. Physiologically-based pharmacokinetic modelling. In: Ballentine B, Marro T, Turner P, ed. *General and applied toxicology*. New York: Stockton Press, 153-164.
- Levin J-O, Lindahl R, Andersson K. 1989. Monitoring of parts-per-billion levels of formaldehyde using a diffuse sampler. *J Air Waste Manage Assoc* 39:44-47.
- *Levine RJ, Andjelkovich DA, Shaw LK. 1984a. The mortality of Ontario undertakers and a review of formaldehyde-related mortality studies. *J Occup Med* 26:740-746.

8. REFERENCES

- Levine RJ, DalCorso D, Blunden PB, et al. 1984b. The effects of occupational exposure on the respiratory health of West Virginia morticians. *J Occup Med* 26:91-98.
- Levison LA. 1904. A case of fatal formaldehyd poisoning. *JAMA, J Am Med Assoc* 42:1492.
- Levy RJ, Schoen FJ, Sherman FS, et al. 1986. Calcification of subcutaneously implanted Type I collagen sponges: Effects of formaldehyde and glutaraldehyde pretreatments. *Am J Pathol* 122:71-82.
- Levy S, Nocentini S, Billardon C. 1983. Induction of cytogenetic effects in human fibroblast cultures after exposure to formaldehyde or X-rays. *Mutat Res* 119:309-317.
- Lewin S. 1966. Reaction of salmon sperm deoxyribonucleic acid with formaldehyde. *Arch Biochem Biophys* 113:584-602.
- Lewis BB, Chestner SB. 1981. Formaldehyde in dentistry: a review of mutagenic and carcinogenic potential. *J Am Dent Assoc* 103:429-434.
- *Lewis RJ. 1993. *Hawley's Condensed chemical dictionary*. 12th ed. New York, NY: Van Nostrand Reinhold Company.
- Li AP, Gupta RS, Heflich RH, et al. 1988. A review and analysis of the Chinese hamster ovary/hypoxanthine-guanine phosphoribosyltransferase assay to determine the mutagenicity of chemical agents. A report of phase III of the U.S. Environmental Protection Agency Gene-Tox Program. *Mutat Res* 196:17-36.
- *Li Q, Wang ZY, Inagaki H, et al. 1995. Evaluation of contact sensitivity to formaldehyde and tetramethylthiuram monosulfide using a modified lymphocyte transformation test. *Toxicology* 104:17-23.
- *Liber HL, Benforado K, Crosby RM, et al. 1989. Formaldehyde-induced and spontaneous alterations in human *hprt* DNA sequence and mRNA expression. *Mutat Res* 226:31-37.
- *Lide DR, Frederikse HPR. 1996. *CRC Handbook of chemistry and physics: A ready-reference book of chemical and physical data*. 77th ed. Boca Raton, FL: CRC Press.
- Liden S, Scheynius A, Fischer T, et al. 1993. Absence of specific IgE antibodies in allergic contact sensitivity to formaldehyde. *Allergy* 48:525-529.
- Liebling T, Rosenman KD, Pastides H, et al. 1984. Cancer mortality among workers exposed to formaldehyde. *Am J Ind Med* 5:423-428.
- *Liesivuori J, Savolainen H. 1987. Urinary formic acid as an indicator of occupational exposure to formic acid and methanol. *Am Ind Hyg Assoc J* 48:32-34.
- Liesivuori J, Savolainen H. 1991. Methanol and formic acid toxicity: Biochemical mechanisms. *Pharmacol Toxicol* 69:157-163.
- Lin JM, Tang CS. 1994. Characterization and aliphatic aldehyde content of particulates in Chinese incense smoke. *Bull Environ Contam Toxicol* 53:895-901.

8. REFERENCES

- *Lin Y, Duecker SR, Jones AD, et al. 1995. Protocol for collection and HPLC analysis of volatile carbonyl compounds in breath. *Clin Chem* 41:1028-1032.
- Lindskov R. 1982. Contact urticaria to formaldehyde. *Contact Dermatitis* 8:333-334.
- Lipari F, Dasch JM, Scruggs WF. 1984. Aldehyde emissions from wood-burning fireplaces. *Environ Sci Technol* 18:326-330.
- Liu K-S, Petreas M, Hayward S. 1986. A survey of formaldehyde concentrations inside California mobile homes [Abstract]. *Prepr Pap Natl Meet Am Chem Soc Div Environ Chem* September 7-12, 1986:ENVR 94.
- Liu KS, Huang FY, Hayward SB, et al. 1991. Survey of formaldehyde concentrations and health effects in mobile homes [Abstract]. *Arch Environ Health* 46:181-182.
- Loden M. 1986a. The *in vitro* permeability of human skin to benzene, ethylene glycol, formaldehyde, and n-hexane. *Acta Pharmacol Toxicol (Copenh)* 58:382-389.
- Loden M. 1986b. The effect of 4 barrier creams on the absorption of water, benzene, and formaldehyde into excised human skin. *Contact Dermatitis* 14:292-296.
- *Lofroth G, Burton RM, Forehand L, et al. 1989. Characterization of environmental tobacco smoke. *Environ Sci Technol* 23:610-614.
- *Logue JN, Barrick MK, Jessup GL. 1986. Mortality of radiologists and pathologists in the Radiation Registry of Physicians. *J Occup Med* 28:91-99.
- *Loomis TA. 1979. Formaldehyde toxicity. *Arch Pathol Lab Med* 103:321-324.
- Lowe DC, Schmidt U. 1983. Formaldehyde (HCHO) measurements in the nonurban atmosphere. *J Geophys Res* 88:10844-10858.
- *Lowe DC, Schmidt U, Ehhalt DH. 1980. A new technique for measuring tropospheric formaldehyde [CH₂O]. *Geophys Res Lett* 7:825-828.
- Lowe DC, Schmidt U, Ehhalt DH, et al. 1981. Determination of formaldehyde in clean air. *Environ Sci Technol* 15:819-823.
- Lowengart RA, Peters JM, Cicioni C, et al. 1987. Childhood leukemia and parents' occupational and home exposures. *J Natl Cancer Inst* 79:39-46.
- Luce D, Gerin M, Berrino F, et al. 1993a. Sources of discrepancies between a job exposure matrix and a case by case expert assessment for occupational exposure to formaldehyde and wood-dust. *Int J Epidemiol* 22:S113-S120.
- *Luce D, Gerin M, Leclerc A, et al. 1993b. Sinonasal cancer and occupational exposure to formaldehyde and other substances. *Int J Cancer* 53:224-231.
- *Luker MA, Van Houten RW. 1990. Control of formaldehyde in a garment sewing plant. *Am Ind Hyg Assoc J* 51:541-544.

8. REFERENCES

- Lutz KL. 1986. Endogenous formaldehyde does not produce detectable DNA-protein crosslinks in rat liver. *Toxicol Pathol* 14:462-465.
- *Lyman WJ. 1982. Adsorption coefficient for soils and sediments. In: Lyman WJ, Reehl WF, Rosenblatt DH, ed. *Handbook of chemical property estimation methods: Environmental behavior of organic compounds*. New York: McGraw-Hill Book Company, 4-1 to 4-33.
- Lynen R, Rothe M, Gallasch E. 1983. Characterization of formaldehyde-related antibodies encountered in hemodialysis patients at different stages of immunization. *Vox Sang* 44:81-89.
- Ma T-H, Harris MM. 1985. Genotoxicity studies of formaldehyde using Tradescantia-micronucleus test [Abstract]. *Environ Mutagen* 7:42.
- Ma T-H, Harris MM. 1988. Review of the genotoxicity of formaldehyde. *Mutat Res* 196:37-59.
- Ma T-H, Xu Z, Harris MM, et al. 1986. Dose-response of formaldehyde-fume-induced chromosome damage in tradescantia pollen mother cells [Abstract]. *Environ Mutagen* 8:49.
- MacGregor JT, Tucker JD, Ziderman II, et al. 1989. Non-clastogenicity in mouse bone marrow of fructose/lysine and other sugar/amino acid browning products with *in vitro* genotoxicity. *Food Chem Toxicol* 27:715-721.
- Mackay DM, Cherry JA. 1989. Groundwater contamination: Pump-and-treat remediation. *Environ Sci Technol* 23:630-636.
- Magnani C, Comba P, Ferraris F, et al. 1993. A case-control study of carcinomas of the nose and paranasal sinuses in the woolen textile manufacturing industry. *Arch Environ Health* 48:94-97.
- Magras IN. 1996. Formaldehyde vapour effects in chicken embryo. *Anat Histol Embryol* 25:197-200.
- *Maibach H. 1983. Formaldehyde: effects on animal and human skin. In: Gibson JE, ed. *Formaldehyde toxicity*. Washington, DC: Hemisphere Publishing Corporation, 166-174.
- Majumder PK, Kumar VL. 1995. Inhibitory effects of formaldehyde on the reproductive system of male rats. *Indian J Physiol Pharmacol* 39:80-82.
- *Malaka T, Kodama AM. 1990. Respiratory health of plywood workers occupationally exposed to formaldehyde. *Arch Environ Health* 45:288-294.
- Malcolm AR, Mills LJ, Trosko JE. 1985. Effects of ethanol, phenol, formaldehyde, and selected metabolites on metabolic cooperation between Chinese hamster V79 lung fibroblasts. *Carcinogenesis* 8:305-318.
- Malek FA, Moritz KU, Bienengraber V, et al. 1997. Influence of formaldehyde on the open field behavior of rats [Abstract]. *Teratology* 56:399.
- *Mansfield CT, Hodge BT, Hege RB, et al. 1977. Analysis of formaldehyde in tobacco smoke by high performance liquid chromatography. *J Chromatogr Sci* 15:301-302.
- Manzardo S, Coppi G. 1991. [Protective action of certain compounds against the toxic action of acetaldehyde, acrolein and formaldehyde in the rat]. *Boll Chim Farm* 130:399-401. (Italian)

8. REFERENCES

- Marison IW, Attwood MM. 1982. A possible alternative mechanism for the oxidation of formaldehyde to formate. *J Gen Microbiol* 128:1441-1446.
- *Marks JGJ, Belsito DV, DeLeo VA, et al. 1995. North American contact dermatitis group standard tray patch test results (1992 to 1994). *Am J Contact Dermatitis* 6:160-165.
- *Marks TA, Worthy WC, Staples RE. 1980. Influence of formaldehyde and Sonacide (potentiated acid glutaraldehyde) on embryo and fetal development in mice. *Teratology* 22:51-58.
- *Maronpot RR, Miller RA, Clarke WJ, et al. 1986. Toxicity of formaldehyde vapor in B6C3F1 mice exposed for 13 weeks. *Toxicology* 41:253-266.
- Marsh GM. 1982. Proportional mortality patterns among chemical plant workers exposed to formaldehyde. *Br J Ind Med* 39:313-322.
- *Marsh GM, Stone RA, Esmen NA, et al. 1994. Mortality patterns among chemical plant workers exposed to formaldehyde and other substances. *J Natl Cancer Inst* 86:384-386.
- *Marsh GM, Stone RA, Esmen NA, et al. 1996. Mortality among chemical workers in a factory where formaldehyde was used. *Occup Environ Med* 53:613-627.
- Marshall E. 1987. EPA indicts formaldehyde, 7 years later. *Science* 236:381.
- Martin RE, Hizo CB, Ong AM, et al. 1992. Release of formaldehyde and melamine from melamine tableware manufactured in the Philippines. *J Food Prot* 55:632-635.
- *Martin WJ. 1990. A teratology study of inhaled formaldehyde in the rat. *Reprod Toxicol* 4:237-239.
- Marzulli FN, Maibach HI. 1973. Antimicrobials: Experimental contact sensitization in man. *J Soc Cosmet Chem* 24:399-421.
- Mashford PM, Jones AR. 1982. Formaldehyde metabolism by the rat: a re-appraisal. *Xenobiotica* 12:119-124.
- *Matanoski, GM. 1991. Risks of pathologists exposed to formaldehyde. DHHS grant no. 5 RO1 OHO1511-03. PB91-173682.
- Mathison BH, Harman AE, Bogdanffy MS. 1997. DNA damage in the nasal passageway: a literature review. *Mutat Res* 380:77-96.
- Matsuda H, Ose Y, Nagase H, et al. 1991. Mutagenicity of the components of ozonated humic substance. *Sci Total Environ* 103:129-140.
- Matsuda H, Hibino M, Sato T, et al. 1993a. Mutagenicity of ozonated and chlorinated humic substances. *J Environ Sci Health Part A* 28:821-837.
- Matsuda H, Sato T, Nagase H, et al. 1992. Aldehydes as mutagens formed by ozonation of humic substances. *Sci Total Environ* 114:205-213.
- Matsuda H, Sato T, Nagase H. 1993b. Behavior of mutagenic aldehydes formed by preozonation in postchlorination. *J Environ Sci Health Part A* 28:1553-1564.

8. REFERENCES

- Matsumoto K, Moriya F, Nanikawa R. 1990. The movement of blood formaldehyde in methanol intoxication. II: The movement of blood formaldehyde and its metabolism in the rabbit. *Jpn J Legal Med* 44(3):205-211.
- Matthews TG, Fung KW, Tromberg BJ, et al. 1986. Impact of indoor environmental parameters on formaldehyde concentrations in unoccupied research houses. *J Air Pollut Control Assoc* 36:1244-1249.
- Matthews TG, Hawthorne AR, Thompson CV. 1987. Formaldehyde sorption and desorption characteristics of gypsum wallboard. *Environ Sci Technol* 21:629-634.
- *Matthews TG, Reed TJ, Tromberg BJ, et al. 1985. Formaldehyde emission from combustion sources and solid formaldehyde-resin-containing products: Potential impact on indoor formaldehyde concentrations. In: Gammage RB, Kaye SV, Jacobs VA, ed. *Indoor air and human health*. Chelsea, MI: Lewis Publishers, Inc., 131-150.
- Maurice F, Rivory JP, Bousquet J, et al. 1985. Anaphylactic shock with formaldehyde [Abstract]. *J Allergy Clin Immunol* 75:209.
- *Maurice F, Rivory JP, Larsson PH, et al. 1986. Anaphylactic shock caused by formaldehyde in a patient undergoing long-term hemodialysis. *J Allergy Clin Immunol* 77:594-597.
- Maut W, Bufalino C, McClure T, et al. 1988. Antagonistic effects in inhaled formaldehyde and ozone on lung injury in resting and exercising rats [Abstract]. *FASEB J* 2:8723.
- McCrae IS, Williams ID. 1994. Road traffic pollution and public nuisance. *Sci Total Environ* 146/147:81-91.
- *McLaughlin JK. 1994. Formaldehyde and cancer: a critical review. *Int Arch Occup Environ Health* 66:295-301.
- McMillan A, Whittemore AS, Silvers A, et al. 1994. Use of biological markers in risk assessment. *Risk Anal* 14:807-813.
- *Meding B, Swanbeck G. 1990. Occupational hand eczema in an industrial city. *Contact Dermatitis* 22:13-23.
- Medinsky MA, Kimbell JS, Morris JB, et al. 1993. Advances in biologically based models for respiratory tract uptake of inhaled volatiles. *Fundam Appl Toxicol* 20:265-272.
- Mendelsohn ML, Moore DHIII, Lohman PHM. 1992. A method for comparing and combining short-term genotoxicity test data: Results and interpretation. *Mutat Res* 266:43-60.
- *Menne T, Frosch PJ, Veien NK, et al. 1991. Contact sensitization to 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (MCI/MI): A European multicentre study. *Contact Dermatitis* 24:334-341.
- Merkle SE. 1985. Ambient concentrations of formaldehyde and ammonia in a screwworm fly rearing facility. *Am Ind Hyg Assoc J* 46:336-340.
- Meyer B. 1986. Formaldehyde exposure from building products. *Environ Int* 12:283-288.

