

8. REFERENCES

- *ACGIH. 1986. Documentation of the threshold limit values and biological exposure indices. 5th ed. American Conference of Governmental Industrial Hygienists. Cincinnati, OH.
- Achenback C, Ziskoven R, Koehler F, et al. 1979. Quantitative trace analysis of thallium in biological material. *Angew Chem [Engl]* 18:882-883.
- *Andre T, Ullberg S, Winqvist G. 1960. The accumulation and retention of thallium in tissues of the mouse. *Acta Pharmacol Toxicol* 16:229-234.
- *Angerer J, Schaller K II. 1985. Thallium. In: Analysis of hazardous substances in biological materials. Vol. 1. Weinheim, FRG:VCH, 201-208.
- *Anschutz M, Herken R, Neubert D. 1981. Studies on embryo toxic effects of thallium using the whole embryo culture technique. In: Neubert D, Merker H-J, eds. Culture techniques: Applicability for studies on prenatal differentiation and toxicity: 5th symposium on prenatal development, May, 1981, Berlin. Berlin, West Germany: Walter de Gruyter, 57-66.
- *APHA. 1985. Metals by atomic absorption spectrometry. In: Greenberg AE, et al. eds. Standard methods for the examination of water and wastewater. 16th ed. Washington, DC: American Public Health Association, 151-161.
- *Apostoli P, Maranelli G, Minoia C, et al. 1988. Urinary thallium: Critical problems, reference values and preliminary results of an investigation in workers with suspected industrial exposure. *Sci Total Environ* 71:513-518.
- *Barclay RK, Pencock WC, Karnofsy DA. 1953. Distribution and excretion of radioactive thallium in the chick embryo, rat, and man. *J Pharmacol Exp Ther* 107:178-187.
- *Barnes D, Bellin J, DeRosa C, et al. 1988. Reference dose (RfD): Description and use in health risk assessments. Vol. I. Appendix A: Integrated risk information system supportive documentation. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment. EPA/600/8-86/032a.
- Barrera H, Gomez-Puyou A. 1975. Characteristics of the movement of K^+ across the mitochondrial membrane and the inhibitory action of Tl^+ . *J Biol Chem* 250:5370-5374.

8. REFERENCES

- *Barrows ME, Petrocelli SR, Macek KJ, et al. 1978. Bioconcentration and elimination of selected water pollutants by bluegill sunfish. In: Haque R, ed. Dynamics, exposure and hazard assessment of toxic chemicals. Ann Arbor, MI: Ann Arbor Science Publishers, Inc., 379-392.
- *Baselt RC. 1988. Thallium. In: Biological monitoring methods for industrial chemicals. Littleton, MA: PSG Publishing Company, Inc., 274-275.
- Boiteau HL, Metayer C, Ferre R, et al. 1986. Application of Zeeman atomic absorption spectrometry for the determination of toxic metals in the viscera [Abstract]. J Toxicol Clin Exp 6:95-106.
- *Bornhausen M, Hagen U. 1984. Operant behavior performance changes in rat after prenatal and postnatal exposure to heavy metals. IRCS Med Sci 12:805-806.
- Bradley-Moore PR, Lebowitz E, Greene MW, et al. 1975. Thallium-201 for medical use. II: Biologic Behavior. J Nuclear Med 16:156-160.
- Britten JS, Blank M. 1968. Thallium activation of the (Na⁺-K⁺)-activated ATPase of rabbit kidney. Biochim Biophys Acta 159:160-166.
- *Brockhaus A, Dolgner R, Ewers U, et al. 1980. Excessive thallium absorption among a population living near a thallium emitting cement plant. Dev Toxicol Environ Sci 8:565-568.
- *Brockhaus A, Dolgner R, Ewers U, et al. 1981. Intake and health effects of thallium among a population living in the vicinity of a cement plant emitting thallium containing dust. Int Arch Occup Environ Health 48:375-389.
- *Bronstein AC, Currance PL. 1988. Emergency care for hazardous materials exposure. St. Louis, MO: The C.V. Mosby Company, 78, 211-212.
- *Brown DR, Callahan BG, Cleaves MA, et al. 1985. Thallium induced changes in behavioral patterns: Correlation with altered lipid peroxidation and lysosomal enzyme activity in brain regions of male rats. Toxicol Ind Health 1:81-98.
- *Callahan MA, Ehreth DJ, Levins PL. 1979a. Sources of toxic pollutants found in influent to sewage treatment plants. Proceedings of the 8th National Conference on Municipal Sludge Management, 55-61.
- *Callahan MA, Slimak MW, Gabel NW, et al. 1979b. Water-related environmental fate of 129 priority pollutants. Vol I. Introduction and technical background, metals and inorganics, pesticides and PCBs. Report to U.S. Environmental Protection Agency, Office of Water Planning and Standards, Washington, DC, by Versar Incorporated, Springfield, VA. EPA-440/4-79-029a. NTIS No. PB80-204373.

8. REFERENCES

- *Carpenter RC. 1981. The determination of cadmium, copper, lead and thallium in human liver and kidney tissue by flame atomic absorption spectrometry after enzymatic digestion. *Anal Chim Acta* 125:209-213.
- *Carson B, Ellis H, McCann J. 1986. Toxicology and biological monitoring of metals in humans. Chelsea, MI: Lewis Publishers, Inc., 243-254.
- *Casto BC, Meyers J, DiPaolo JA. 1979. Enhancement of viral transformation for evaluation of the carcinogenic or mutagenic potential of inorganic metal salts. *Cancer Res* 39:193-198.
- *Cataldo DA, Wildung RE. 1983. The role of soil and plant metabolic processes in controlling trace element behavior and bioavailability to animals. *Sci Total Environ* 28:159-168.
- Cavanagh JB, Gregson M. 1978. Some effects of a thallium salt on the proliferation of hair follicle cells. *J Pathol* 125:179-191.
- *Cavanagh JB, Fuller NH, Johnson HR, et al. 1974. The effects of thallium salts, with particular reference to the nervous system changes: A report of three cases. *Q J Med* 43:293-319.
- Cavieres JD, Ellory JC. 1974. Thallium and the sodium pump in human red cells. *J Physiol (Lond)* 242:243-266.
- Chamberlain PH, Stavinoha WB, Davis H, et al. 1958. Thallium poisoning. *Pediatrics* 22:1170-1182.
- *Chandler HA, Scott M. 1984. Determination of low levels of thallium in urine using chelation with sodium diethyldithiocarbamate, extraction into toluene, and atomic absorption spectrophotometry with electrothermal atomization. *Atomic Spectroscopy* 5:230-233.
- *CLPSD. 1989. Contract Laboratory Program Statistical Database. Viar and Company, Management Services Division, Alexandria, VA. July 1989.
- *Cole RH, Frederick RE, Healy RG, et al. 1984. Preliminary findings of the priority pollutant monitoring project of the nationwide urban runoff program. *J Water Pollut Control Fed* 56:898-908.
- *Cotton FA, Wilkinson G. 1980. Advanced inorganic chemistry: A comprehensive text. 4th revised ed. New York, NY: John Wiley & Sons, 349.
- *Dai-xing Z, Ding-nan L. 1985. Chronic thallium poisoning in a rural area of Guizhou Province, China. *J Environ Health* 48:14-18.

8. REFERENCES

- Danilewicz M, Danilewicz M, Kurnatowski A. 1981. [Pathomorphological changes in the liver of rats poisoned with various doses of thallium sulfate]. *Patol Pol* 32:89-97. (Polish)
- *Davis LE, Standefer JC, Kornfeld M, et al. 1981. Acute thallium poisoning: Toxicological and morphological studies of the nervous system. *Ann Neurol* 10:38-44.
- *Davison RL, Natusch DF, Wallace JR, et al. 1974. Trace elements in fly ash: Dependence of concentration on particle size. *Environ Sci Technol* 8:1107-1113.
- *De Groot G, van Leusen R, van Heijst AN. 1985. Thallium concentrations in body fluids and tissues in a fatal case of thallium poisoning. *Vet Hum Toxicol* 27:115-119.
- *DeRuck A, Vandecasteele C, Dams R. 1989. Determination of thallium in solid environmental samples by electrothermal atomic absorption spectrometry. *Anal Lett* 22:469-480.
- *Dolgner R, Brockhaus A, Ewers U, et al. 1983. Repeated surveillance of exposure to thallium in a population living in the vicinity of a cement plant emitting dust containing thallium. *Int Arch Occup Environ Health* 52:79-94.
- *Dougherty JP, Costello JA, Michel RG. 1988. Determination of thallium in bovine liver and mouse brains by laser excited atomic fluorescence spectrometry in a graphite tube furnace. *Anal Chem* 60:336-340.
- *Downs WL, Scott JK, Steadman LT, et al. 1960. Acute and sub-acute toxicity studies of thallium compounds. *Am Ind Hyg Assoc J* 21:399-406.
- *Ducket S, Hiller D, Ballas S. 1983. Quantitation and localization of thallium²⁰⁴ in the central and peripheral nervous system of adult and young rats. *Neurotoxicology* 4:227-234.
- Eckel WP, Langley WD. 1988. A background-based ranking technique for assessment of elemental enrichment in soils at hazardous waste sites. In: *Proceedings of the 9th National Superfund Conference*. The Hazardous Materials Control Research Institute, Washington, DC, 282-286.
- *Ellenhorn MJ, Barceloux DG. 1988. *Medical toxicology: Diagnosis and treatment of human poisoning*. New York, NY: Elsevier, 1060-1062.
- Emara M, Soliman MA. 1950. The distribution of ingested thallium in the tissues of animals. *J Egyptian Med Assoc* 33:1-15.
- Engman MF Jr. 1932. A study of the effect of thallium acetate upon the growth of the Flexner-Jobling tumor in albino rats. *Am J Cancer* 16:847-853.

8. REFERENCES

- *EPA. 1980a. Ambient water quality criteria for thallium. Washington, DC: U.S. Environmental Protection Agency, Office of Water Regulations and Standards. EPA-440/5-80-074. NTIS No. PB81-117848.
- EPA. 1980b. U.S. Environmental Protection Agency: Part V. Federal Register 45:79340.
- *EPA. 1980c. U.S. Environmental Protection Agency. Federal Register 45:33132-33133.
- EPA. 1982. Inductively coupled plasma-atomic emission spectrometric method for trace element analysis of water and wastes - method 200.7. Cincinnati, Ohio: U.S. Environmental Protection Agency, Office of Research and Development.
- *EPA. 1983a. Atomic absorption, direct aspiration - method 279.1. In: Methods for chemical analysis of water and wastes. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.
- *EPA. 1983b. Atomic absorption, furnace technique - method 279.2. In: Methods for chemical analysis of water and wastes. Cincinnati, Ohio: U.S. Environmental Protection Agency, Office of Research and Development. EPA-600/4-79-020.
- *EPA. 1983c. Treatability manual. Vol. 1. Treatability data. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development. EPA-600/2-82-001a.
- *EPA. 1985a. Inductively coupled plasma-atomic emission spectrometric method for trace element analysis of water and wastes - method 200.7. Cincinnati, Ohio: U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory.
- *EPA. 1985b. Suspended, cancelled and restricted pesticides. Washington, DC: U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances Compliance, 25.
- *EPA. 1986a. Thallium (atomic absorption, direct aspiration) - method 7840. In: Test methods for evaluating solid waste. 3rd ed. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1986b. Thallium (atomic absorption, furnace technique) - method 7841. In: Test methods for evaluating solid waste. 3rd ed. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.

8. REFERENCES

- *EPA. 1986c. Inductively coupled plasma atomic emission spectroscopy - method 6010. In: Test methods for evaluating solid waste. 3rd ed. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- EPA. 1986d. Acid digestion of sediments, sludges, and soils - method 3050. In: Test methods for evaluating solid waste. 3rd ed. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- EPA. 1986e. Atomic absorption methods - method 7000. In: Test methods for evaluating solid waste. 3rd ed. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1987a. Toxic air pollutant/source crosswalk: A screening tool for locating possible sources emitting toxic air pollutants. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. EPA-450/4-87-023a.
- *EPA. 1987b. U.S. Environmental Protection Agency: Part II. Federal Register 52:13402-13403.
- *EPA. 1987c. U.S. Environmental Protection Agency: Part II. Federal Register 52:25942-24953.
- *EPA. 1987d. U.S. Environmental Protection Agency: Part V. Federal Register 52:25760-25763, 25791.
- *EPA. 1988a. Health and environmental effects document for thallium and compounds. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. ECAO-CIN-G031.
- EPA. 1988b. U.S. Environmental Protection Agency: Part I. Federal Register 53:5574-5576.
- *EPA. 1988c. U.S. Environmental Protection Agency: Part II. Federal Register 53:4500-4501.
- *EPA. 1988d. U.S. Environmental Protection Agency: Part II. Federal Register 53:31138-31141, 31154-31155, 31216-31222.
- *EPA. 1988e. U.S. Environmental Protection Agency: Part V. Federal Register 53:38642-38654.
- EPA. 1988f. U.S. Environmental Protection Agency: Part V. Federal Register 54:33466.

8. REFERENCES

EPA. 1988g. Drinking water criteria document for thallium. Report to U.S. Environmental Protection Agency, Office of Drinking Water, Washington, DC, by Dynamic Corporation, Rockville, MD.

*EPA. 1989a. U.S. Environmental Protection Agency: Part V. Federal Register 54:33466.

EPA. 1989b. The toxics-release inventory: A national perspective. Washington, DC: U.S. Environmental Protection Agency, Office of Toxic Substances. EPA 560/4-89-005.

*EPA. 1989c. Interim methods for development of inhalation reference doses. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment. EPA 600/8-88/066F.

*EPA. 1991. Health effects assesment summary tables. Annual FY-1991. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Office of Emergency and Remedial Response. OERR9200.6-303(91-1).

*Ewers U. 1988. Environmental exposure to thallium. Sci Total Environ 71:285-292.

*Formigli L, Scelsi R, Poggi P, et al. 1986. Thallium-induced testicular toxicity in the rat. Environ Res 40:531-539.

*Frantz G, Carlson RM. 1987. Division S-2-soil chemistry: Effects of rubidium, cesium, and thallium on interlayer potassium release from transvaal vermiculite. Soil Sci Soc Am J 51:305-308.

Freeze RA, Cherry JA. 1979. Groundwater. 1st ed. Englewood Cliffs, NJ: Prentice Hall, 127.

*FSTRAC. 1988. Summary of state and federal drinking water standards and guidelines. Washington, DC: Federal-State Toxicology and Regulatory Alliance Committee, Chemical Communication Subcommittee.

*Gastel B, ed. 1978. Thallium poisoning. Johns Hopkins Med J 142:27-31.

*Gehring PJ, Hammond PB. 1967. The interrelation between thallium and potassium in animals. J Pharmacol Exp Ther 155:187-201.

*Gibson JE, Becker BA. 1970. Placental transfer, embryotoxicity and teratogenicity of thallium sulfate in normal and potassium-deficient rats. Toxicol Appl Pharmacol 16:120-132.

Ginsburg HM, Nixon CE. 1932. Thallium poisoning. A preliminary report of eleven cases at the General Hospital of Fresno County, California. J Am Med Assoc 98:1076-1077.

8. REFERENCES

- *Gosselin RE, Smith RP, Hodge HC, et al. 1984. Clinical toxicology of commercial products. 5th ed. Baltimore, MD: Williams and Wilkins, II-139, 111-379-383.
- Graedel TE. 1978. Chemical compounds in the atmosphere. New York, NY: Academic Press, 35-49.
- *Green DR, Le Pape D. 1987. Stability of hydrocarbon samples on solid-phase extraction columns. Anal Chem 59:699-703.
- Gregus Z, Klaassen CD. 1986. Disposition of metals in rats: A comparative study of fecal, urinary, and biliary excretion and tissue distribution of eighteen metals. Toxicol Appl Pharmacol 85:24-38.
- *Grunfeld O, Hinostroza G. 1964. Thallium poisoning. Arch Intern Med 114:132-138.
- *Grunfeld O, Battilana G, Aldana L, et al. 1963. Electrocardiographic changes in experimental thallium poisoning. Am J Vet Res 24:1291-1296.
- *Haddad LM, Winchester JF. 1990. Clinical management of poisoning and drug overdose. 2nd ed. Philadelphia, PA: W.B. Saunders Company.
- Hall BK. 1985. Critical periods during development as assessed by thallium-induced inhibition of growth of embryonic chick tibiae in vitro. Teratology 31:353-361.
- Hamilton L, Brown D, Callahan B, et al. 1985. Thallium toxicity: Histochemical localization of lipid peroxidation and phospholipids in brain and correlation with behavior. Fourth Meeting of the Behavioral Toxicology Society, Wilmington, DE, USA. Neurobehav Toxicol Teratol 7:530-531.
- Hart MM, Adamson RH. 1971. Antitumor activity and toxicity of salts of inorganic group IIIa metals: Aluminum, gallium, indium, and thallium. Proc Natl Acad Sci USA 68:1623-1626.
- *Hasan M, Chandra SV, Dua PR, et al. 1977a. Biochemical and electrophysiologic effects of thallium poisoning on the rat corpus striatum. Toxicol Appl Pharmacol 41:353-359.
- *Hasan M, Bajpai VK, Shipstone AC. 1977b. Electron microscope study of thallium-induced alterations in the oligodendrocytes of the rat area postrema. Exp Pathol (Jena) 13:338-345.
- Hasan M, Chandra SV, Bajpai VK, et al. 1977c. Electron microscopic effects of thallium poisoning on the rat hypothalamus and hippocampus: Biochemical changes in the cerebrum. Brain Res Bull 2:255-261.

8. REFERENCES

- *Hasan M, Ashraf I, Bajpai VK. 1978. Electron microscopic study of the effects of thallium poisoning on the rat cerebellum. *Forensic Sci* 11:139-146.
- Hauser TR, Bromberg SM. 1982. EPA's monitoring program at Love Canal 1980. *Environmental Monitoring and Assessment* 2:249-271.
- *Heath A, Ahlmen J, Branegard B, et al. 1983. Thallium poisoning--toxin elimination and therapy in three cases. *J Toxicol Clin Toxicol* 20:451-463.
- Heit M, Klusek CS. 1985. Trace element concentrations in the dorsal muscle of white suckers and brown bullheads from two acidic Adirondack lakes. *Water Air Soil Pollut* 25:87-96.
- *Heit M, Klusek CS, Baron J. 1984. Evidence of deposition of anthropogenic pollutants in remote Rocky Mountain lakes. *Water Air Soil Pollut* 22:403-416.
- *Herman MM, Bensch KG. 1967. Light and electron microscopic studies of acute and chronic thallium intoxication in rats. *Toxicol Appl Pharmacol* 10:199-222.
- Holleman JW, Ryon MG, Hammons AS. 1980. Chemical contaminants in nonoccupationally exposed U.S. residents. Report to U.S. Environmental Protection Agency, Office of Research and Development, Research Triangle Park, NC, by Oak Ridge National Laboratory, Oak Ridge, TN. EPA-600/1-80-001.
- *HSDB. 1989. Hazardous Substances Data Bank. National Library of Medicine, National Toxicology Information Program, Bethesda, MD. September 1989.
- *IRIS. 1989. Integrated Risk Information System. U.S. Environmental Protection Agency, Washington, DC. September 1989.
- IRPTC. 1989. International Register of Potentially Toxic Chemicals. United Nations Environment Programme, Geneva, Switzerland. September 1989.
- Jones MM, Schoenheit JE, Weaver AD. 1979. Pretreatment and heavy metal LD50 values. *Toxicol Appl Pharmacol* 49:41-44.
- Kada T, Hirano K, Shirasu Y. 1980. Screening of environmental chemical mutagens by the ret-assay system with *Bacillus subtilis*. *Chem Mutagens* 6:149-173.
- *Kaiser G, Tolg G. 1986. Reliable determination of elemental traces in the nanogram/gram range in biotic materials and in coal by inverse voltammetry and atomic absorption spectrometry after combustion of the sample in a stream of oxygen. *Fresenius Z Anal Chem* 351:32-40.
- Kamerbeek HH, Rauws AG, Ham M ten, et al. 1971. Dangerous redistribution of thallium by treatment with sodium diethyldithiocarbamate. *Acta Med Stand* 189:149-154.

8. REFERENCES

- *Kanematsu N, Hara M, Kada T. 1980. Rec assay and mutagenicity studies on metal compounds. *Mutat Res* 77:109-116.
- Karkos J. 1971. [Neuropathological picture in thallium-induced Encephalopathy]. *Neurol Neurochir Pol* 51911-915. (Polish)
- *Kneip TJ, Crable JV. 1988. Metals in blood or tissue - method 118. In: *Methods for biological monitoring*. Washington, DC: American Public Health Association, 221-228.
- *Lameijer W, van Zwieten PA. 1976. Acute cardiovascular toxicity of thallium (I) ions. *Arch Toxicol* 35:49-61.
- *Lameijer W, van Zwieten PA. 1977a. Kinetic behavior of thallium in the rat. Accelerated elimination of thallium owing to treatment with potent diuretic agents. *Arch Toxicol* 37:265-273.
- Lameijer W, van Zwieten PA. 1977b. Kinetics of thallium elimination in the rat after acute and subacute intoxication. Influence of diuretic treatment. *Proceedings of the European Society of Toxicology* 18:163-164.
- *Lameijer W, van Zwieten PA. 1978. Accelerated elimination of thallium in the rat due to subchronic treatment with furosemide. *Arch Toxicol* 40:7-16.
- Lauwreys R. 1975. Biological criteria for selected industrial toxic chemicals: A review. *Stand J Work Environ Health* 1:139-172.
- *Lee AG. 1971. *The chemistry of thallium*. Amsterdam, The Netherlands: Elsevier Publishing Company.
- *Lehmann PA, Favari L. 1985. Acute thallium intoxication: Kinetic study of the relative efficacy of several antidotal treatments in rats. *Arch Toxicol* 57:56-60.
- Leloux MS, Nguyen PL, Claude JR. 1987a. Experimental studies on thallium toxicity in rats. I--Localization and elimination of thallium after oral acute and sub-acute intoxication. *J Toxicol Clin Exp* 7:247-257.
- Leloux MS, Nguyen PL, Claude JR. 1987b. Determination of thallium in various biological matrices by graphite furnace atomic absorption spectrophotometry using platform technology [Abstract]. *Atomic Spectroscopy* 8:75-77.
- Levander OA, Argrett LC. 1969. Effects of arsenic, mercury, thallium, and lead on selenium metabolism in rats. *Toxicol Appl Pharmacol* 14:308-314.

8. REFERENCES

- *Levins P, Adams J, Brenner P, et al. 1979. Sources of toxic pollutants found in influents to sewage treatment plants. VI. Integrated interpresentation. Washington, DC: U.S. Environmental Protection Agency, Office of Water Planning and Standards. EPA-440/4-81-008. NTIS No. PB81-219685.
- *Lie R, Thomas R, Scott J. 1960. The distribution and excretion of thallium-204 in the rat, with suggested MPC's and a bio-assay procedure. *Health Phys* 2:334-340.
- *Limos LC, Ohnishi A, Suzuki N, et al. 1982. Axonal degeneration and focal muscle fiber necrosis in human thallotoxicosis: Histopathological studies of nerve and muscle.
- *Ludolph A, Elger CE, Sennhenn R, et. al. 1986. Chronic thallium exposure in cement plant workers: Clinical and electrophysiological data. *Trace Elem Med* 3:121-125.
- *Lund A. 1956a. Distribution of thallium in the organism and its elimination. *Acta Pharmacol Toxicol* 12:251-259.
- *Lund A. 1956b. The effect of various substances on the excretion and the toxicity of thallium in the rat. *Acta Pharmacol Toxicol* 12:260-268.
- *Magorian TR, Wood KG, Michalovic JG, et al. 1974. Water pollution by thallium and related metals, 145-160.
- Manschot WA. 1969. Ophthalmic pathological findings in a case of thallium poisoning. *Ophthalmologica* 158:348-349.
- Manzo L, Rade-Edel J, Sabbioni E. 1981. Environmental toxicology research on thallium metabolic and toxicological studies in the rat as carried out by nuclear and radio analytical methods. *Comm Eur Communities Eur Rep* (7604):1-9.
- *Manzo L, Scelsi R, Moglia A, et al. 1983. Long-term toxicity of thallium in the rat. In: *Chemical toxicology and clinical chemistry of metals*. London, England: Academic Press, 401-405.
- *Marcus RL. 1985. Investigation of a working population exposed to thallium. *J Sot Occup Med* 35:4-9.
- *Marwaha J, Freedman R, Hoffer B. 1980. Electrophysiological changes at a central noradrenergic synapse during thallium toxicosis. *Toxicol Appl Pharmacol* 56:345-352.
- *Mathis BJ, Kevern NR. 1975. Distribution of mercury, cadmium, lead and thallium in a entropic lake. *Hydrobiologia* 46:207-222.

8. REFERENCES

- *Moeschlin S. 1980. Thallium poisoning. Clin Toxicol 17:133-146.
- Mullins LJ, Moore RD. 1960. The movement of thallium ions in muscle. J Gen Physiol 43:759-773.
- Munch JC. 1928. The toxicity of thallium sulphate. J Am Pharm Assoc 17:1086-1093.
- Munch JC, Ginsburg HM, Nixon CE. 1933. The 1932 thallotoxicosis outbreak in California. J Am Med Assoc 100:1315-1319.
- *NAS/NRC. 1989. Biologic markers in reproductive toxicology. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press.
- *NATICH. 1989. NATICH data base report on state, local and EPA air toxics activities. Report to U.S. Environmental Protection Agency, Office of Air Quality, Planning and Standards, National Air Toxics Information Clearinghouse, Research Triangle Park, NC, by Radian Corporation, Austin, TX. EPA-450/3-89-29.
- *NIOSH. 1984a. Method 8005. In: NIOSH manual of analytical methods. 3rd ed. Vol. 1. Cincinnati, OH: National Institute of Occupational Safety and Health. DHHS (NIOSH) Publication No. 84-100.
- *NIOSH. 1984b. Elements (ICP) - method 7300. In: NIOSH manual of analytical methods. 3rd ed. Vol. 1. Cincinnati, OH: National Institute for Occupational Safety and Health. DHHS (NIOSH) Publication No. 84-100.
- *NIOSH. 1985. Pocket guide to chemical hazards. Washington, DC: U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health. DHHS (NIOSH) Publication No. 85-114.
- NLM. 1989. Chemline. National Library of Medicine, Bethesda, MD. September 5, 1989.
- *NOES. 1989. National Occupational Exposure Survey. National Institute of Occupational Safety and Health, Cincinnati, OH. October 18, 1989.
- NOHS. 1989. National Occupational Hazard Survey. National Institute of Occupational Safety and Health, Cincinnati, OH. October 18, 1989.
- *Olsen I, Jonsen J. 1982. Whole-body autoradiography of ²⁰⁴Tl in embryos, fetuses and placentas of mice. Toxicology 23:353-358.
- *OSHA, 1989. Occupational Safety and Health Administration: Part III. Federal Register 54:2954.

8. REFERENCES

- *Paschal DC, Bailey GG. 1986. Determination of thallium in urine with Zeeman effect graphite furnace atomic absorption. *J Anal Toxicol* 10:252-254.
- Peele DB, MacPhail RC, Farmer JD. 1986. Flavor aversions induced by thallium sulfate: Importance of route of administration. *Neurobehav Toxicol Teratol* 8:273-277.
- *Proctor NH, Hughes JP, Fischman ML. 1988. Chemical hazards of the workplace. 2nd ed. Philadelphia, PA: J.B. Lippincott Company.
- *Rade JE, Marafante E, Sabbioni E, et al. 1982. Placental transfer and retention of ²⁰¹Tl thallium in the rat. *Toxicol Lett* 11~275-280.
- Rawlings GD, Samfield M. 1979. Textile plant wastewater toxicity: A study collected baseline data on priority pollutant concentrations and chemical toxicity, in support of BATEA standard-setting. *Environ Sci Technol* 13:160-164.
- *Rios C, Galvan-Arzate S, Tapia R. 1989. Brain regional thallium distribution in rats acutely intoxicated with Tl₂S₄. *Arch Toxicol* 63:34-37.
- *Roby DS, Fein AM, Bennett RH, et al. 1984. Cardiopulmonary effects of acute thallium poisoning. *Chest* 85:236-240.
- *Sabbioni E, Marafante E, Rade J, et al. 1980. Metabolic patterns of low and toxic doses of thallium in the rat. *Dev Toxicol Environ Sci* 8:559-564.
- *Sax NI. 1984. Dangerous properties of industrial materials. 6th ed. New York, NY: Van Nostrand Reinhold Company, 2555, 2557.
- *Sax NI, Lewis RJ Sr. 1987. Hawley's condensed chemical dictionary. 11th ed. New York, NY: Van Nostrand Reinhold Company, 1142-1143.
- *Schaller KH, Manke G, Raithel HJ, et al. 1980. Investigations of thallium-exposed workers in cement factories. *Int Arch Occup Environ Health* 47:223-231.
- *Schoer J. 1984. Thallium. In: Hutzinger O, ed. The handbook of environmental chemistry. Vol. 3. Part C. Anthropogenic compounds. New York, NY: Springer-Verlag, 143-214.
- *Sharma J, Sharma RL, Singh HB, et al. 1986. Hazards and analysis of thallium--a review. *Toxicol Environ Chem* 11:93-116.
- *Sherlock JC, Smart GA. 1986. Thallium in foods and the diet. *Food Additives and Contaminants* 3:363-370.

8. REFERENCES

- *Sittig M. 1985. Thallium and compounds. In: Handbook of toxic and hazardous chemicals and carcinogens. 2nd ed. Park Ridge, NJ: Noyes Publication, 853-855.
- *Smith IC, Carson BL. 1977. Trace metals in the environment. Vol. I. Thallium. Ann Arbor, MI: Ann Arbor Science Publishers.
- Snider EH, Manning FS. 1982. A survey of pollutant emission levels in wastewaters and residuals from the petroleum refining industry. Environ Int 7:237-258.
- Spencer PS, Peterson ER, Madrid AR, et al. 1973. Effects of thallium salts on neuronal mitochondria in organotypic cord-ganglia-muscle combination cultures. J Cell Biol 58:79-95.
- SRI. 1986. Directory of chemical producers: United States of America. Menlo Park, CA: SRI International, 1054.
- SRI. 1987. Directory of chemical producers: United States of America. Menlo Park, CA: SRI International, 1044.
- SRI. 1988. Directory of chemical producers: United States of America. Menlo Park, CA: SRI International, 1023.
- SRI. 1989. Directory of chemical producers: United States of America. Menlo Park, CA: SRI International, 1031.
- *Stephenson T, Lester JN. 1987a. Heavy metal behavior during the activated sludge process: I. Extent of soluble and insoluble metal removal. Sci Total Environ 63:199-214.
- *Stephenson T, Lester JN. 1987b. Heavy metal behavior during the activated sludge process: II. Insoluble metal removal mechanisms. Sci Total Environ 63:215-230.
- *Stoltz ML, Stedham MA, Brown LK, et al. 1986. Subchronic (90 day) toxicity of thallium (I) sulfate in Sprague-Dawley rats. Report to U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, by Midwest Research Institute, Kansas City, MO.
- *Stutz DR, Janusz SJ. 1988. Hazardous materials injuries: A handbook for pre-hospital care. 2nd ed. Beltsville, MD: Bradford Communications Corporation, 404-405.
- Talas A, Wellhoner HH. 1983. Dose-dependency of Tl⁺ kinetics as studied in rabbits. Arch Toxicol 53:9-16.

8. REFERENCES

- Talas A, Pretschner DP, Wellhoner HH. 1983. Pharmacokinetic parameters for thallium (I)-ions in man. *Arch Toxicol* 53:1-7.
- Tan E-L, Williams MW, Schenley RL, et al. 1984. The toxicity of 16 metallic compounds in Chinese hamster ovary cells. *Toxicol Appl Pharmacol* 74:330-336.
- Thompson SE, Burton CA, Quinn DJ, et al. 1972. Concentration factors of chemical elements in edible aquatic organisms. Report to U.S. Atomic Energy Commission by Lawrence Livermore Laboratory, University of California, Livermore, CA. UCRL-50564.
- *TRI. 1989. Toxic Chemical Release Inventory. National Library of Medicine, National Toxicology Information Program, Bethesda, MD.
- *U.S. Bureau of Mines. 1983. Mineral commodity summaries. Washington, DC.
- *U.S. Bureau of Mines. 1988. Mineral commodity summaries. Washington, DC.
- U.S. Bureau of Mines. 1989. Mineral commodity summaries. Washington, DC.
- *Valerio F, Brescianini C, Mazzucotelli A, et al. 1988. Seasonal variation of thallium, lead and chromium concentrations in airborne particulate matter collected in an urban area. *Sci Total Environ* 71:501-509.
- *View Database. 1989. Agency for Toxic Substances and Disease Registry (ATSDR), Office of External Affairs, Exposure and Disease Registry Branch, Atlanta, GA. September 25, 1989.
- *Wallwork-Barber MK, Lyall K, Ferenbaugh RW. 1985. Thallium movement in a simple aquatic ecosystem. *J Environ Sci Health* 20:689-700.
- *Weast RC, ed, 1970. CRC handbook of chemistry and physics. 51st ed. Cleveland, OH: The Chemical Rubber Company, B-146.
- *Weast RC, ed. 1985. CRC handbook of chemistry and physics. Boca Raton, FL: CRC Press, Inc., B-38, B-150-151.
- WHO. 1984. Guidelines for drinking-water quality. Vol 1. Recommendations. World Health Organization, Geneva, Switzerland, 52.
- Wiegand H, Papadopoulos R, Csicsaky M, et al. 1984a. The action of thallium acetate on spontaneous transmitter release in the rat neuromuscular junction. *Arch Toxicol* 55:253-257.
- Wiegand H, Csicaky M, Krammer U. 1984b. The action of thallium acetate on neuromuscular transmission in the rat phrenic nerve-diaphragm preparation. *Arch Toxicol* 55:55-58.

8. REFERENCES

Wiersema JM, Wright L, Rogers GB, et al. 1984. Human exposure to potentially toxic elements through ambient air in Texas. Proceedings of the Air Pollution Control Association 77th Annual Meeting, 1-15.

*Windholz M, ed. 1983. The Merck index: An encyclopedia of chemicals, drugs, and biologicals. 10th ed. Rahway, NJ: Merck and Company, Inc., 1324-1325.

Wise SA, Zeisler R. 1984. The pilot Environmental Specimen Bank program. Environ Sci Technol 18:302A-307A.

*Woods JS, Fowler BA. 1986. Alteration of hepatocellular structure and function by thallium chloride: Ultrastructural, morphometric, and biochemical studies. Toxicol Appl Pharmacol 83:218-229.

*Zasukhina GD, Krasovskii GN, Vasileva IM, et al. 1981. Molecular biological effects of thallium carbonate. Bull Exp Biol Med 90:1731-1733.

*Zasukhina GD, Vasilyeva IM, Sdirkova NI, et al. 1983. Mutagenic effect of thallium and mercury salts on rodent cells with different repair activities. Mutat Res 124:163-173.

*Zitko V, Carson WV. 1975. Accumulation of thallium in clams and mussels. Bull Environ Contam Toxicol 14:530-533.

*Zitko V, Carson WV, Carson WG. 1975. Thallium: Occurrence in the environment and toxicity to fish. Bull Environ Contam Toxicol 13:23-30.