ACGIH. 2004. Threshold limit values for chemical substances and physical agents and biological exposure indices. Cincinnati, OH: American Conference of Governmental Industrial Hygienists.

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

Adlercreutz H. 1995. Phytoestrogens: Epidemiology and a possible role in cancer protection. Environ Health Perspect Suppl 103(7):103-112.

Agency for Toxic Substances and Disease Registry. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles; Notice. Atlanta, GA: Agency for Toxic Substances and Disease Registry, Division of Toxicology. Fed Regist 54(174):37618-37634.

Agency for Toxic Substances and Disease Registry. 1990a. Health assessment for Tex Tin Corporation, National Priorities List Site, Texas City, Texas, Region 6. CERCLIS No. TXD062113329. Atlanta, GA: Agency for Toxic Substances and Disease Registry. PB90250440.

Agency for Toxic Substances and Disease Registry. 1990b. Biomarkers of organ damage or dysfunction for the renal, hepatobiliary, and immune systems. Subcommittee on Biomarkers of Organ Damage and Dysfunction. Atlanta, GA: Agency for Toxic Substances and Disease Registry.

Alimonti A, Forte G, Spezia S, et al. 2005. Uncertainty of inductively coupled plasma mass spectrometry based measurements: An application to the analysis of urinary barium, cesium, antimony, and tungsten. Rapid Comm Mass Spectrom 19:3131-3138.

Alcalde AI, Ilundain A. 1988. The effect of BaCl<sub>2</sub> on intestinal sugar transport in the rat *in vitro*. Rev Esp Fisiol 44:147-150.

Altman PL, Dittmer DS. 1974. Biological handbooks: Biology data book. Vol. III. 2nd ed. Bethesda, MD: Federation of American Societies for Experimental Biology, 1987-2008, 2041.

Andersen ME, Krishnan 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 III, Gargas ML, et al. 1987. Physiologically based pharmacokinetics and the risk assessment process for methylene chloride. Toxicol Appl Pharmacol 87:185-205.

Antonio A, Rocha e Silva M, Yashuda Y. 1973. The tachyphylactic effect of barium on intestinal smooth muscle. Arch Int Pharmacodyn Ther 204:260-267.

Aruguete DM, Aldstadt JH III, Mueller GM. 1998. Accumulation of several heavy metals and lanthanides in mushrooms (*Agaricales*) from the Chicago region. Sci Total Environ 224:43-56.

<sup>\*</sup>Not cited in text

ASTM. 1999. Standard test method for barium in brines, seawater, and brackish water by direct-current argon plasma atomic emission spectroscopy. Annual Book of ASTM Standards. West Conshohocken, PA: American Society for Testing and Materials, 395-397.

ASTM. 2000. Standard test method for barium in water, atomic absorption spectrophotometry, graphite furnace. Annual book of ASTM standards. West Conshohocken, PA: American Society for Testing and Materials, 432-434.

Ault B, Evans RH, Francis AA, et al. 1980. Selective depression of excitatory amino-acid induced depolarizations by magnesium ions in isolated spinal cord preparations. J Physiol 307:413-428.

Ayre JE. 1966. Human cell-dysplasia following barium. Ind Med Surg 35:393-399.

Bahlmann H, Lindwall R, Persson H. 2005. Acute barium nitrate intoxication treated by hemodialysis. Acta Anaesthesiol Scand 49:110-112.

Baisane SO, Chincholkar VS, Mattoo BN. 1979. Spectrographic determination of barium in biological material. Forensic Sci Int 12:127-129.

Bano FJ. 1973. The determination of trace amounts of barium in calcium carbonate by atomic-absorption spectrophotometry. Analyst 98:655-658.

Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. Regul Toxicol Pharmacol 8(4):471-486.

Barnett PR, Skougstad MW, Miller KJ. 1969. Chemical characterization of a public water supply. J Am Water Works Assoc 61:61-67.

Bates MH. 1988. Land farming of reserve pit fluids and sludges: Fates of selected contaminants. Water Res 22:793-797.

Bauer GCH, Carlsson A, Lindquist B. 1956. A comparative study on the metabolism of <sup>140</sup>Ba and <sup>45</sup>Ca in rats. Biochem J 63:535-542.

Bauer GCH, Carlsson A, Lindquist B. 1957. Metabolism of <sup>140</sup>Ba in man. Acta Orthop Scand 26:241-254.

Beliles RP. 1979. The lesser metals. In: Oehme FW, ed. Hazardous and toxic substances. Vol. 2. Toxicity of heavy metals in the environment. Parts 1 and 2. New York, NY: Marcel Dekker, Inc., 547-615.

Benes P, Sebesta F, Sedlacek J, et al. 1983. Particulate forms of radium and barium in uranium mine waste waters and receiving river waters. Water Res 17:619-624.

Berger GS. 1994. Epidemiology of endometriosis. In: Berger GS, ed. Endometriosis: Advanced management and surgical techniques. New York, NY: Springer-Verlag, 3-7.

Berggren PO, Andersson T, Hellman B. 1983. The interaction between barium and calcium in  $\beta$ -cellrich pancreatic islets. Biomed Res 4:129-137.

Biego GH, Joyeux M, Hartemann P, et al. 1998. Determination of mineral contents in different kinds of milk and estimation of dietary intake in infants. Food Addit Contam 15(7):775-781.

Birmili W, Allen AG, Bary F, et al. 2006. Trace metal concentrations and water solubility in size-fractionated atmospheric particles and influence of road traffic. Environ Sci Technol 40:1144-1153.

Bodek I, Lyman WJ, Reehl WF, et al, eds. 1988. Environmental inorganic chemistry: Properties, processes, and estimation methods. New York, NY: Pergamon Press, 7.3.1-7.3-4, B2-B7, B11-B13, B17-B18.

Boffito C. 2002. Barium. In: Kirk-Othmer encyclopedia of chemical technology. John Wiley & Sons.

Boothe PN, James WD. 1985. Neutron activation analysis of barium in marine sediments from the north central Gulf of Mexico. J Trace Microprobe Tech 3:377-399.

Borchardt P, Dindial W, Mettenleiter M. 1961. A rapid semimicromethod for the determination of phosphorus and barium in biologic preparations. Clin Chem 7:264-267.

Borzelleca JF, Condie LW Jr, Egle JL Jr. 1988. Short-term toxicity (one- and ten-day gavage) of barium chloride in male and female rats. J Am Coll Toxicol 7:675-685.

Boullin DJ. 1965. Effect of divalent ions on release of <sup>3</sup>H-noradrenaline by sympathetic nerve stimulation. J Physiol 183:76P-77P.

Boullin DJ. 1967. The action of extracellular cations on the release of the sympathetic transmitter from peripheral nerves. J Physiol 189:85-99.

Bowen HJM, ed. 1966. Trace elements in biochemistry. New York, NY: Academic Press, Inc., 16, 19, 31, 39, 68, 70, 72, 75-76, 81, 84, 105, 129, 140, 151, 176,

Bowen HJM. 1979. Environmental chemistry of the elements. New York, NY: Academic Press, Inc.

Boyd EM, Abel M. 1966. The acute toxicity of barium sulfate administered intragastrically. Can Med Assoc J 94:849-853.

Bradley LJ, Magee BH, Allen SL. 1994. Background levels of polycyclic aromatic hydrocarbons (PAH) and selected metals in New England urban soils. J Soil Contam 3:349-361.

Brenniman GR, Levy PS. 1985. Epidemiological study of barium in Illinois drinking water supplies. In: Calabrese EJ, Tuthill RW, Condie L, eds. Inorganics in water and cardiovascular disease. Princeton, NJ: Princeton Scientific Publishing Co., 231-240.

Brenniman GR, Kojola WH, Levy PS, et al. 1979a. Health effects of human exposure to barium in drinking water. Cincinnati, Ohio: U.S. Environmental Protection Agency, Office of Research and Development, Health Effects Research Laboratory. EPA600179003. PB292268.

Brenniman GR, Kojola WH, Levy PS, et al. 1981. High barium levels in public drinking water and its association with elevated blood pressure. Arch Environ Health 36:28-32.

Brenniman GR, Namekata T, Kojola WH, et al. 1979b. Cardiovascular disease death rates in communities with elevated levels of barium in drinking water. Environ Res 20:318-324.

Breuing EP, Kaminskas R, Kobashi YL, et al. 1987. Effects of sodium and calcium concentrations on the barium chloride-induced electrical and contractile responses of the guinea-pig vas deferens. Braz J Med Biol Res 20:231-242.

Bronstein AC, Currance PL, eds. 1988. Emergency care for hazardous materials exposure. St. Louis, MO: CV Mosby Company, 66, 127-128.

Bruce BW, McMahon PB. 1996. Shallow ground-water quality beneath a major urban center: Denver, Colorado, USA. J Hydrol 186:129-151.

Budavari S, O'Neil MJ, Smith A, et al., eds. 2001. Barium. The Merck index: An encyclopedia of chemicals, drugs, and biologicals. Whitehouse Station, NJ: Merck and Co., Inc, 168-172.

Butte W, Heinzow B. 2002. Pollutants in house dust as indicators of indoor contamination. Rev Environ Contam Toxicol 175:1-46.

Calabrese EJ. 1977. Excessive barium and radium-226 in Illinois drinking water. J Environ Health 39:366-369.

CDC. 2001. National report on human exposure to environmental chemicals. Atlanta, GA: Centers for Disease Control and Prevention.

CDC. 2003. Second national report on human exposure to environmental chemicals. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention. NCEH Pub. No. 02-0716.

CDC. 2005. Third national report on human exposure to environmental chemicals. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention. NCEH Pub. No. 05-0570.

Cember H, Watson JA, Novak ME. 1961. The influence of radioactivity and lung burden on the pulmonary clearance rate of barium sulfate. Am Ind Hyg Assoc J 22:27-32.

ChemIDplus. 2007. ChemIDplus. Bethesda, MD: U.S. National Library of Medicine. http://sis.nlm.nih.gov/chemical.html. May 11, 2007.

CHRIS Manual. 2005. Barium. Chemical Hazards Response Information System. http://www.chrismanual.com/findform.idc. May 20, 2005.

Chou C, Chin YC. 1943. The absorption, fate and concentration in serum of barium in acute experimental poisoning. Chinese Med J 61:313-322.

Chow TJ, Earl JL, Reed JH, et al. 1978. Barium content of marine sediments near drilling sites: A potential pollutant indicator. Mar Pollut Bull 9:97-99.

Clement JG. 1981. BaCl<sub>2</sub>-induced contractions in the guinea pig ileum longitudinal muscle: Role of presynaptic release of neurotransmitters and Ca<sup>2+</sup> translocation in the postsynaptic membrane. Can J Physiol Pharmacol 59:541-547.

Clewell HJ III, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. Toxicol Ind Health 1(4):111-131.

Connor JJ, Shacklette HT. 1975. Background geochemistry of some rocks, soils, plants, and vegetables in the conterminous United States. U.S. Geological Survey Professional Paper. Washington, DC: U.S. Government Printing Office. 574-F.

Cove JKJ, Snyder RN. 1974. Fatal barium intravasation during barium enema. Radiology 112:9-10.

Cuddihy RG, Griffith WC. 1972. A biological model describing tissue distribution and whole-body retention of barium and lanthanum in beagle dogs after inhalation and gavage. Health Phys 23:621-633.

Cuddihy RG, Ozog JA. 1973b. Nasal absorption of CsCl, SrCl<sub>2</sub>, BaCl<sub>2</sub> and CeCl<sub>3</sub> in Syrian hamsters. Health Phys 25:219-224.

Cuddihy RG, Hall RP, Griffith WC. 1974. Inhalation exposures to barium aerosols: Physical, chemical, and mathematical analysis. Health Phys 26:405-416.

Cullen RT, Tran CL, Buchanan D, et al. 2000. Inhalation of poorly soluble particles. I. Differences in inflammatory response and clearance during exposure. Inhal Toxicol 12:1089-1111.

Dailey R, Raisbeck MF, Siemion R, et al. 2005. Trace metals in Wyoming fish. Bull Environ Contam Toxicol 74:1078-1083.

Das NC, Singh V. 1970. Unusual type of cardiac arrest: Case report. Armed Forces Med J India 26:344-352.

Davis WE. 1972. National inventory of sources and emissions. Barium, boron, copper, selenium, and zinc 1969 - Barium section 1. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Programs. Contract #68020100. PB210676.

Delfino G, Amerini S, Mugelli A. 1988. Barium cardiotoxicity: Relationship between ultrastructural damage and mechanical effects. Toxicol In Vitro 2:49-55.

Dencker L, Nilsson A, Ronnback C, et al. 1976. Uptake and retention of <sup>133</sup>Ba and <sup>133</sup>Ba-<sup>140</sup>La in mouse tissues. Acta Radiol 15:273-287.

Deng JF, Jan IS, Cheng HS. 1991. The essential role of a poison center in handling an outbreak of barium carbonate poisoning. Vet Hum Toxicol 33(2):173-175.

de Zwart IM, Griffioen G, Shaw MP, et al. 2001. Barium enema and endoscopy for the detection of colorectal neoplasia: Sensitivity, specificity, complications and its determinants. Clin Radiol 56(5):401-409.

Dibello PM, Manganaro JL, Aguinaldo ER, et al. 2003. Barium compounds: Barium sulfide. In: Kirk-Othmer encyclopedia of chemical technology. John Wiley & Sons, Inc., 1-3.

Diengott D, Rozsa O, Levy N, et al. 1964. Hypokalemia in barium poisoning. Lancet 2:343-344.

Dietz DD, Elwell MR, Davis WE, et al. 1992. Subchronic toxicity of barium chloride dihydrate administered to rats and mice in the drinking water. Fundam Appl Toxicol 19:527-537.

DOE. 1984. A review and analysis of parameters for assessing transport of environmentally released radionucleotides through agriculture. Oak Ridge, TN: U.S. Department of Energy by Oak Ridge National Laboratory, ORNL-5786.

DOI. 1970. Trace metals in waters of the United States. A five-year summary of trace metals in rivers and lakes of the United States (Oct 1, 1962-Sept 30, 1967). Cincinnati, OH: U.S. Department of Interior, Federal Water Pollution Control Administration, Division of Pollution Surveillance.

Doig AT. 1976. Baritosis: A benign pneumoconiosis. Thorax 31:30-39.

Domanski T, Trojanowska B. 1980. Studies on metabolic kinetics of lead and alkaline earth elements (Ca, Ba). Acta Physiol Pol 31:439-447.

Domanski T, Liniecki J, Witkowska D. 1969. Kinetics of calcium, strontium, barium, and radium in rats. In: Mays CW, Jee WSS, Lloyd RD, et al., eds. Delayed effects of bone-seeking radionuclides. Salt Lake City, UT: University of Utah Press, 79-94.

DOT. 2004. Emergency response guidebook. Department of Transportation, Office of Hazardous Materials Safety. http://hazmat.dot.gov/pubs/erg/psn\_b.htm. May 20, 2005.

Douglas WW, Rubin RP. 1964a. The effects of alkaline earths and other divalent cations on adrenal medullary secretion. J Physiol 175:231-241.

Doull J, Klaassen CD, Amdur MD, eds. 1980. Casarett and Doull's toxicology. 2nd ed. New York, NY: MacMillan Publishing Co., 438, 466.

Downs JCU, Milling D, Nichols CA. 1995. Suicidal ingestion of barium-sulfide-containing shaving powder. Am J Forensic Med Pathol 16(1):56-61.

Dreisbach RH, Robertson WO, eds. 1987. Handbook of poisoning: Prevention, diagnosis & treatment. 12th ed. Norwalk, CT: Appleton & Lange, 119-120.

Durfor CN, Becker E. 1964. Public water supplies of the 100 largest cities in the United States, 1962. U.S. Department of the Interior, U.S. Geological Survey. Washington, DC: U.S. Government Printing Office. Water-Supply 1812.

Durum WH, Haffty J. 1961. Occurrence of minor elements in water. Washington, DC: U.S. Department of the Interior, U.S. Geological Survey:1-11.

Ebeigbe AB, Aloamaka CP. 1987. Mechanism of contractile action of barium ion on rat aortic smooth muscle. Can J Physiol Pharmacol 65:2454-2458.

Edel J, Di Nucci A, Sabbioni E, et al. 1991. Biliary excretion of barium in the rat. Biol Trace Elem Res 30:267-276.

Edelbeck L, West PW. 1970. Determination of trace concentrations of barium extracted from aqueous systems. Anal Chim Acta 52:447-453.

Ehara T, Inazawa M. 1980. Calcium-dependent slow action potentials in potassium-depolarized guineapig ventricular myocardium enhanced by barium ion. Naunyn-Schmiedebergs Arch Pharmacol 315:47-54.

Elinder C-G, Zenz C. 1994. Other metals and their compounds. Occup Med 46:595-616.

Ellenhorn MJ, Barceloux G, eds. 1988. Medical toxicology: Diagnosis and treatment of human poisoning. New York, NY: Elsevier, 1017.

Ellsasser JC, Farnham JE, Marshall JH. 1969. Comparative kinetics and autoradiography of <sup>45</sup>Ca and <sup>133</sup>Ba in ten-year-old beagle dogs. J Bone Joint Surg 51A:1397-1412.

Elwood PC, Abernethy M, Morton M. 1974. Mortality in adults and trace elements in water. Lancet 1470-1472.

EPA. 1974. Method 208.1. National Environmental Methods Index. U.S. Environmental Protection Agency. http://www.epa.gov/nerl/. April 01, 2005.

EPA. 1978. Method 208.2. Barium (AA, furnace technique) Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 116.4.

EPA. 1979. Method 208.2. Atomic absorption, furnace technique. Methods for chemical analysis of water and wastes. Washington, DC: U.S. Environmental Protection Agency. EPA600479020, 78-79.

EPA. 1983. Reportable quantity for barium. Environmental Criteria and Assessment Office, Cincinnati, OH. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.

EPA. 1984. Health effects assessment for barium. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA540186021.

EPA. 1987. Drinking water health criteria document on barium (final draft). Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water, Criteria and Standards Division. TR-832-892. PB91142869.

EPA. 1989. Exposure factors handbook. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment. EPA600889043.

EPA. 1990. Interim methods for development of inhalation reference concentrations. Washington, DC: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Office of Research and Development, Environmental Criteria and Assessment Office. EPA600890066A.

EPA. 1991. National pretreatment program: Report to Congress. Washington, DC: U.S. Environmental Protection Agency. 21W4004.

EPA. 1992. Method 7081. Barium (Atomic absorption, furnace technique) Washington, DC: U.S. Environmental Protection Agency.

EPA. 1994a. Method 200.8. National environmental methods index. U.S. Environmental Protection Agency. http://www.epa.gov/nerl/. April 01, 2005.

EPA. 1994b. Method 200.7. National environmental methods index. U.S. Environmental Protection Agency. http://www.epa.gov/nerl/. April 01, 2005.

EPA. 1994c. Method 7080A. Barium (Atomic absorption, direct aspiration). U.S. Environmental Protection Agency. http://www.epa.gov/sw-846/pdfs/7080a.pdf. November 9, 2007.

EPA. 1995a. Determination of background concentrations of inorganics in soils and sediments at hazardous waste sites. Washington, DC: U.S. Environmental Protection Agency. EPA540S96500.

EPA. 1995b. SOP 102: Determination of barium, copper, manganese, vanadium, and zinc in NHEXAS food or beverage composites by graphite furnace atomic absorption spectrometry. Compendium of methods for analysis of trace metals in dietary samples using Total Diet Study procedures. National Human Exposure Assessment Survey (NHEXAS). Arizona study: Quality systems and implementation plan for human exposure assessment. Tucson, AZ: U.S. Environmental Protection Agency.

EPA. 1996. Method 3050B. Acid digestion of sediments, sludges, and soils. In: Environmental Monitoring Method Index (CD-ROM): EPA's official database of analytical methods for regulated substances. Rockville, MD: Government Institutes.

EPA. 1997. Special report on environmental endocrine disruption: An effects assessment and analysis. Washington, DC: U.S. Environmental Protection Agency, Risk Assessment Forum. EPA630R96012.

EPA. 2002a. National primary drinking water regulations. Washington, DC: Office of Ground Water and Drinking Water, U.S. Environmental Protection Agency. EPA816F02013. http://www.epa.gov/safewater/mcl.html. February 15, 2005.

EPA. 2002b. National recommended water quality criteria. Washington, DC: Office of Water, Office of Science and Technology, U.S. Environmental Protection Agency. EPA822R02047. http://www.epa.gov/waterscience/pc/revcom.pdf. February 15, 2005.

EPA. 2004. Drinking water standards and health advisories. Washington, DC: Office of Water, U.S. Environmental Protection Agency. EPA822R04005. http://www.epa.gov/waterscience/drinking/standards/dwstandards.pdf. February 15, 2005.

\*EPA. 2005a. Designated as hazardous substances in accordance with Section 311(b)(2)(A) of the Clean Water Act. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations 40 CFR 116.4. http://www.epa.gov/ttn/atw/orig189.html. February 15, 2005.

EPA. 2005b. Reportable quantities of hazardous substances designated pursuant to Section 311 of the Clean Water Act. Washington, DC: U.S. Environmental Protection Agency. 40 CFR 117.3. http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm. February 16, 2005.

EPA. 2005c. Technical factsheet on: Barium. Ground water and drinking water. Washington, DC: U.S. Environmental Protection Agency.

EPA. 2005d. Toxic chemical release inventory reporting forms and instructions: Revised 2004 version. Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986). U.S. Environmental Protection Agency. Office of Environmental Information. EPA260B05001.

Epstein MS, Zander AT. 1979. Direct determination of barium in sea and estuarine water by graphite furnace atomic spectrometry. Anal Chem 51:915-918.

Essing H-G, Buhlmeyer G, Valentin H, et al. 1976. [Exclusion of disturbances to health from long years of exposure to barium carbonate in the production of steatite ceramics.] Arbeitsmedizin Sozialmedizin Praventivmedizin 11:299-302. (German)

Fagioli F, Locatelli C, Lanciotti E, et al. 1988. Determination of barium in bottled drinking water by graphite furnace atomic absorption spectrometry. Anal Lett 21:2107-2116.

Faust SD, Aly OM. 1981. Chemistry of natural waters. Ann Arbor, MI: Ann Arbor Science Publishers.

FDA. 2004. Beverages. Bottled water. Washington, DC: Food and Drug Administration. Code of Federal Regulations 21 CFR 165.110.

http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm. February 15, 2005.

FEDRIP. 2005. Barium. Federal Research in Progress database. Springfield, VA: National Technical Information Service. April 01, 2005.

FEDRIP. 2006. Barium. Federal Research in Progress database. Springfield, VA: National Technical Information Service. October 26, 2006.

Feng X, Melander AP, Klaue B. 2000. Contribution of municipal waste incineration to trace metal deposition on the vicinity. Water Air Soil Pollut 119:295-316.

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(Suppl 5):1169-1175.

Foster PR, Elharrar V, Zipes DP. 1977. Accelerated ventricular escapes induced in the intact dog by barium, strontium and calcium. J Pharmacol Exp Ther 200:373-383.

Foulkes EC, Bergman D. 1993. Inorganic mercury absorption in mature and immature rat jejunum: Transcellular and intercellular pathways *in vivo* and in everted sacs. Toxicol Appl Pharmacol 120:89-95.

Genter MB. 2001. Magnesium, calcium, strontium, barium, and radium: Barium. In: Bingham E, Cohrssen B, Powell CH, eds. Patty's toxicology. John Wiley & Sons, Inc.

Gilkeson RH, Specht SA, Cartwright K, et al. 1978. Geologic studies to identify the source for high level of radium and barium in Illinois ground-water supplies: A preliminary report. Illinois State Geological Survey and Illinois State Water Survey. Urbana, IL: University of Illinois, Water Resources Center. UILU-WRC-78-0135.

Giusti L, Yang Y-L, Hewitt CN, et al. 1993. The solubility and partitioning of atmospherically derived trace metals in artificial and natural waters. Atmos Environ 27A(10):1567-1578.

Giwercman A, Carlsen E, Keiding N, et al. 1993. Evidence for increasing incidence of abnormalities of the human testis: A review. Environ Health Perspect Suppl 101(2):65-71.

Golothan DW. 1967. Diesel engine exhaust smoke: The influence of fuel properties and the effects of using barium-containing fuel additive. Society of Automotive Engineers. S.A.E.-670092, 616-640.

González-Muñoz MT, Fernández-Luque B, Martínez-Ruiz F, et al. 2003. Precipitation of barite by *Myxococcus xanthus*: Possible implications for the biogeochemical cycle of barium. Appl Environ Microbiol 69(9):5722-5725.

Gore DJ, Patrick G. 1982. A quantitative study of the penetration of insoluble particles into the tissue of the conducting airways. Ann Occup Hyg 26:149-161.

Gould DB, Sorrell MR, Lupariello AD. 1973. Barium sulfide poisoning: Some factors contributing to survival. Arch Intern Med 132:891-894.

Greengard P, Straub RW. 1959. Restoration by barium of action potentials in sodium-deprived mammalian B and C fibers. J Physiol 145:562-569.

Grippo AA, Hamilton B, Hannigan R, et al. 2006. Metal content of ephedra-containing dietary supplements and select botanicals. Am J Health-Syst Pharm 63:635-644.

Guzelian PS, Henry CJ, Olin SS, eds. 1992. Similarities and differences between children and adults: Implications for risk assessment. Washington, DC: International Life Sciences Institute Press.

Haddad LM, Winchester JF, eds. 1990. Clinical management of poisoning and drug overdose. 2nd ed. Philadelphia, PA: WB Saunders Company, 1129.

Hadjimarkos DM. 1967. Effect of trace elements in drinking water on dental caries. J Pediatr 70:967-969.

Hampel CA, Hawley GG, eds. 1973. The encyclopedia of chemistry. 3rd ed. New York, NY: Van Nostrand Reinhold Company, 125-127.

Harrison GE, Carr TEF, Sutton A, et al. 1966. Plasma concentration and excretion of calcium-47, strontium-85, barium-133, and radium-223 following successive intravenous doses to a healthy man. Nature 209:526-527.

Harrison GE, Raymond WHA, Tretheway HC. 1956. The estimation of barium and strontium in biological materials by activation analysis with special reference to the turnover of strontium in man. Proceedings of the international conference on the peaceful uses of atomic energy. Vol. 11. Biological effects of radiation. New York, NY: United Nations, 156-159.

Harrison GE, Carr TEF, Sutton A. 1967. Distribution of radioactive calcium, strontium, barium and radium following intravenous injection into a healthy man. Int J Radiat Biol 13(3):235-247.

Hawley GG, ed. 1977. The condensed chemical dictionary. 9th ed. New York, NY: Van Nostrand Reinhold Co., 105-110.

Hawley GG, ed. 1981. The condensed chemical dictionary. 10th ed. New York, NY: Van Nostrand Reinhold Company, 105-110.

Hayes WJ Jr. 1982. Pesticides studied in man. Baltimore, MD: Williams and Wilkins Co.

HazDat. 2006. HazDat database: ATSDR's Hazardous Substance Release and Health Effects Database. Atlanta, GA: Agency for Toxic Substances and Disease Registry. www.atsdr.cdc.gov/hazdat.html. December 21, 2006.

Health Canada. 2005. Canadian total diet study. Ottawa, Ontario: Health Canada. http://www.hcsc.gc.ca/food-aliment/cs-ipc/fr-ra/e tds.html. August 02, 2005.

Hem JD. 1959. Study and interpretation of the chemical characteristics of natural water. U.S. Geological Survey sampling data. Washington, DC: U.S. Government Printing Office. Water Supply Paper 1473.

Hicks R, Caldas LQA, Dare PRM, et al. 1986. Cardiotoxic and bronchoconstrictor effects of industrial metal fumes containing barium. Archives of Toxicology, Suppl 9. Toxic interfaces of neurones, smoke and genes. Secaucus, NJ: Springer-Verlag New York, Inc.

Hildemann LM, Markowski GR, Cass GR. 1991. Chemical composition of emissions from urban sources of fine organic aerosol. Environ Sci Technol 25:744-759.

Hiraoka M, Ikeda K, Sano T. 1980. The mechanism of barium-induced automaticity in ventricular muscle fibers. Adv Myocardiol 1:255-266.

Hoel DG, Davis DL, Miller AB, et al. 1992. Trends in cancer mortality in 15 industrialized countries, 1969-1986. J Natl Cancer Inst 84(5):313-320.

Holding ST, Rowson JJ. 1975. The determination of barium in unused lubricating oils by means of atomic-absorption spectrophotometry. Analyst 100:465-470.

Hope B, Loy C, Miller P. 1996. Uptake and trophic transfer of barium in a terrestrial ecosystem. Bull Environ Contam Toxicol 56:683-689.

HSDB. 2007. Hazardous Substances Data Bank. Bethesda, MD: National Library of Medicine, National Toxicology Information Program. http://toxnet.nlm.nih.gov/. May 8, 2007.

Hudak PF, Wachal DJ. 2001. Effects of brine injection wells, dry holes, and plugged oil/gas wells on chloride, bromide, and barium concentrations in the Gulf Coast Aquifer, southeast Texas, USA. Environ Int 26(7-8):497-503.

Hui-Ming H, Yao-Han L. 1984. Determination of trace Na, K, Ba, and Li by graphite furnace atomic emission spectrometry. Spectrochim Acta 39B:493-499.

Huston J Jr, Wallach DP, Cunningham GJ. 1952. Pulmonary reaction to barium sulfate in rats. AMA Archive Pathol 54:430-438.

IARC. 2004. Overall evaluations of carcinogenicity to humans: As evaluated in IARC Monographs volumes 1-82 (at total of 900 agents, mixtures and exposures) Lyon, France: International Agency for Research on Cancer. http://www-cie.iarc.fr/monoeval/crthall.html. February 15, 2005.

ICRP. 1973. International Commission on Radiological Protection. Alkaline earth metabolism in adult man. Health Phys 24:125-221.

ICRP. 1974. International Commission on Radiological Protection. Report of the task group on reference man. New York, NY: Pergamon Press.

ICRP. 1993. Age-dependent doses to members of the public from intake of radionuclides: Part 2. Ingestion dose coefficients. IRCP publication 67.23(3/4). New York, NY: Pergamon Press.

ILO. 1983. Barium and compounds. In: Parmeggiani L, ed. International Labour Office encyclopedia of occupational health and safety. Volume I and II. Geneva, Switzerland: International Labour Office, 242-244.

IPCS. 1991. Barium: Health and safety guide. Health and Safety Guide No. 46. International Programme on Chemical Safety.

IRIS. 2006. Barium. Washington, DC: Integrated Risk Information System. U.S. Environmental Protection Agency. http://www.epa.gov/iris/subst/. February 05, 2006.

Jaklinski A, Maj J, Przegalinski E. 1967. Experimental studies on barium poisoning. J Forensic Med 14:13-15.

Jha SK, Kumar R, Verma BS. 1993. A case of barium carbonate poisoning. J Assoc Physicians India 41(11):750-751.

Johanson CE. 1980. Permeability and vascularity of the developing brain: Cerebellum vs cerebral cortex. Brain Res 190(1):3-16.

Johnson KE, Yerhoff FW, Robinson J, et al. 1983. Determination of barium at ng ml<sup>-1</sup> levels by flame emission spectrometry after ion-exchange separation from 1000-fold amounts of calcium. Anal Chim Acta 149:129-135.

Joseph EZ. 1985. Chemical safety data guide. Washington, DC: Bureau of National Affairs, Inc.

Jourdan S, Bertoni M, Sergio P, et al. 2001. Suicidal poisoning with barium chloride. Forensic Sci Int 119(2):263-265.

Kabata-Pendias A, Pendias H. 1984. Trace elements in soils and plants. Boca Raton, FL: CRC Press, Inc.

Kanematsu N, Hara M, Kada T. 1980. Rec assay and mutagenicity studies on metal compounds. Mutat Res 77:109-116.

Karaki H, Ikeda M, Urakawa N. 1967. Effects of external calcium and some metabolic inhibitors on barium-induced tension changes in guinea pig taenia coli. Jpn J Pharmacol 17:603-612.

Kay S. 1954. Tissue reaction to barium sulfate contrast medium. AMA Arch Pathol 57:279-284.

Kirkpatrick T. 1978. Barium compounds. In: Grayson M, Eckroth D, eds. Kirk-Othmer encyclopedia of chemical technology. Vol. 3, 3rd ed. New York, NY: John Wiley and Sons, 463-479.

Kirkpatrick T. 1985. Barium compounds. In: Grayson M, Eckroth D, eds. Kirk-Othmer concise encyclopedia of chemical technology. New York, NY: John Wiley and Sons, 147-148.

Koch M, Appoloni O, Haufroid V, et al. 2003. Acute barium intoxication and hemodiafiltration. J Toxicol Clin Toxicol 41(4):363-367.

Kojola WH, Brenniman GR, Carnow BW. 1978. A review of environmental characteristics and health effects of barium in public water supplies. Rev Environ Health 3:79-95.

Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human livers. Biochemistry 29(18):4430-4433.

Kopp JF. 1969. The occurrence of trace elements in water. In: Hemphill DD, ed. Proceedings of the third annual conference on trace substances in environmental health. Columbia, MO: University of Missouri, 59-73.

Kopp SJ, Perry HM Jr, Feliksik JM, et al. 1985. Cardiovascular dysfunction and hypersensitivity to sodium pentobarbital induced by chronic barium chloride ingestion. Toxicol Appl Pharmacol 77:303-314.

Korman EF, Ward JF, Myers LS Jr. 1978. Toxic effects of metals on DNA synthesis. In: Mahlum DD, ed. Developmental toxicology of energy related pollutants, proceedings of the 17th annual Hanford biology symposium, Washington, DC, October 17-19, 1977. Battelle Memorial Institute: Division of Biomedical and Environmental Research, Department of Energy, and Pacific Northwest Laboratories, 384-395.

Kramer HJ, Gonick HC, Lu E. 1986. *In vitro* inhibition of Na-K-ATPase by trace metals: Relation to renal and cardiovascular damage. Nephron 44:329-336.

Kresse R, Baudis U, Jager P, et al. 2007. Barium and barium compounds. In: Ullmann's Encyclopedia of Industrial Chemistry. Wiley-VCH Verlag GmbH & Co. kGaA. http://www.mrw.interscience.wiley.com/emrw/9783527306732/ueic/article/a03\_325/current/pdf. November 15, 2007.

Krishnan K, Andersen ME. 1994. Physiologically based pharmacokinetic modeling in toxicology. In: Hayes AW, ed. Principles and methods of toxicology. 3rd ed. New York, NY: Raven Press, Ltd., 149-188.

Krishnan K, Andersen ME, Clewell HJ III, et al. 1994. Physiologically based pharmacokinetic modeling of chemical mixtures. In: Yang RSH, ed. Toxicology of chemical mixtures: Case studies, mechanisms, and novel approaches. San Diego, CA: Academic Press, 399-437.

Kunesh CJ. 1978. Barium. In: Grayson M, Eckroth D, eds. Kirk-Othmer encyclopedia of chemical technology. Vol. 3, 3rd ed. New York, NY: John Wiley and Sons, 457-463.

Kunesh CJ. 1985. Barium. In: Grayson M, Eckroth D, eds. Kirk-Othmer concise encyclopedia of chemical technology. New York, NY: John Wiley and Sons, 146-147.

Lagas P, Loch JPG, Bom CM, et al. 1984. The behavior of barium in a landfill and the underlying soil. Water, Air, Soil Pollut 22:121-129.

Landis FP, Coons MC. 1954. A rapid spectrographic method for the determination of beryllium in air dust. Appl Spectroscopy 8:71-75.

Larsen PO. 1973. A convenient method for liquid scintillation counting of barium carbonate-<sup>14</sup>C. Int J Appl Radiat Isot 24:612-613.

Leeder JS, Kearns GL. 1997. Pharmcogenetics in pediatrics: Implications for practice. Pediatr Clin North Am 44(1):55-77.

Leggett RW. 1992. Fractional absorption of ingested barium in adult humans. Health Phys 62(6):556-561.

Lengemann FW. 1959. The site of action of lactose in the enhancement of calcium utilization. J Nutr 69:23-27.

LeRoy GV, Rust JH, Hasterlik RJ. 1966. The consequences of ingestion by man of real and simulated fallout. Health Phys 12:449-473.

Leung H-W. 1993. Physiologically-based pharmacokinetic modelling. In: Ballentyne B, Marrs T, Turner P, eds. General and applied toxicology. Vol. 1. New York, NY: Stockton Press, 153-164.

Lewi Z, Bar-Khayim Y. 1964. Food-poisoning from barium carbonate. Lancet 342-343.

Lewis RJ. 1997. Hawley's condensed chemical dictionary. 13th ed. New York, NY: John Wiley & Sons, 111-117.

Lewis RJ. 2000. In: Lewis RJ, eds. Sax's dangerous properties of industrial materials. 10th ed. New York: John Wiley & Sons, Inc, 343-351.

Lide DR. 2000. Barium. CRC handbook of chemistry and physics. New York, NY: CRC Press, 4-45, 4-46, 14-14.

Lide DR. 2005. CRC handbook of chemistry and physics. New York, NY: CRC Press, 4-50, 4-51, 14-17.

Lin Y. 1996. Radiopaques. Kirk-Othmer encyclopedia of chemical technology. John Wiley & Sons.

Liniecki J. 1971. Kinetics of calcium, strontium, barium and radium in rabbits. Health Phys 21:367-376.

Livingston, AL. 1978. Forage plant estrogens. J Toxicol Environ Health 4(2-3):301-324.

Longerich HP, Friel JK, Fraser C, et al. 1991. Analysis of drinking water of mothers of neural tube defect infants and of normal for 14 selected trace elements by inductively coupled plasma-mass spectrometry (ICP-MS) Can J Appl Spectrosc 36(1):15-21.

Losee FL, Cutress TW, Brown R. 1974. Natural elements of the periodic table in human dental enamel. Caries Res 8:123-134.

Lowe TP, Day DD. 2002. Metal concentrations in zebra mussels and sediments from embayments and riverine environments of eastern Lake Erie, southern Lake Ontario, and the Niagara River. Arch Environ Contam Toxicol 43:301-308.

Mattila MJ, Anyos K, Puisto EL. 1986. Cardiotoxic actions of doxepin and barium chloride in conscious rabbits. Arch Toxicol 9 (Suppl):205-208.

Mauras Y, Allain P. 1979. [Determination of barium in water and biological fluids by emission spectrometry with an indirectively-coupled plasma.] Anal Chim Acta 110:271-277. (French)

Mayr U, Butsch A, Schneider S. 1992. Validation of two *in vitro* test systems for estrogenic activities with zearalenone, phytoestrogens and cereal extracts. Toxicology 74(2-3):135-149.

McCabe LJ, Symons JM, Lee RD, et al. 1970. Survey of community water supply systems. J Am Water Works Assoc 62:670-687.

McCauley PT, Washington IS. 1983. Barium bioavailability as the chloride, sulfate or carbonate salt in the rat. Drug Chem Toxicol 6:209-217.

McCauley PT, Douglas BH, Laurie RD, et al. 1985. Investigations into the effect of drinking water barium on rats. Adv Mod Environ Toxicol, Inorg Drinking Water Cardiovasc Dis 9:197-210.

McNally WD. 1925. Two deaths from the administration of barium salts. J Am Med Assoc 84:1805-1807.

Meister RT, ed. 2004. Crop protection handbook. Willoughby, OH: Meister Media Worldwide, C71-C72.

Merefield JR. 1987. Ten years of barium build-up in the Teign. Mar Pollut Bull 18:220-222.

Miller RG, Featherstone JDB, Curzon MEJ, et al. 1985. Barium in teeth as indicator of body burden. Adv Mod Environ Toxicol 9:211-219.

Miner S. 1969a. Air pollution aspects of barium and its compounds. Bethesda, MD: Litton Systems, Inc Contract No. Ph-22-68-25, 69.

Miner S. 1969b. Preliminary air pollution survey of barium and its compounds: A literature review. Raleigh, NC: U.S. Department of Health, Education and Welfare, Public Health Service, Consumer Protection and Environmental Health Service, Consumer Air Pollution and Control Administration. Report No. APTD 69-28.

Mishra SK, Das PK, Sanyal AK. 1988. Barium-induced contraction of rat vas deferens in calcium-free solution. Arch Int Pharmacodyn Ther 294:85-98.

Monaco M, Dominici R, Barisano P, et al. 1990. Mutagen activity of barium chloride in *Salmonella typhimurium*. Med Lav 81:54-64.

Monaco M, Dominici R, Barisano P, et al. 1991. Valutazione della presunta attivita mutagena del bario nitrato. Med Lav 82(5):439-445.

Morel FMM. 1983. Principles of aquatic chemistry. New York, NY: John Wiley and Sons.

Morrow PE, Gibb FR, Davies H, et al. 1968. Dust removal from the lung parenchyma: An investigation of clearance stimulants. Toxicol Appl Pharmacol 12:372-396.

Morrow PE, Gibb FR, Johnson L. 1964. Clearance of insoluble dust from the lower respiratory tract. Health Phys 10:543-555.

Morselli PL, Franco-Morselli R, Bossi L. 1980. Clinical pharmacokinetics in newborns and infants: Age-related differences and therapeutic implications. Clin Pharmacokin 5(6):485-527.

Morton W. 1945. Poisoning by barium carbonate. Lancet 2:738-739.

Morton MS, Elwood PC, Abernethy M. 1976. Trace elements in water and congenital malformations of the central nervous system in South Wales. Brit J Prev Soc Med 30:36-39.

Munch DF, Comer HT, Downey JM. 1980. Barium contracture: A model for systole. Am J Physiol 239:H438-H442.

Murata M, Noguchi M. 1974. An ion exchanger-epoxy resin pelletization method for sample preparation in x-ray fluorescence analysis. Anal Chim Acta 71:295-302.

Nakazato Y, Onoda Y. 1980. Barium and strontium can substitute for calcium in noradrenaline output induced by excess potassium in the guinea-pig. J Physiol 305:59-71.

NAS. 1977. Drinking water and health. Vol. 1. National Academy of Sciences. Washington, DC: National Academy Press, 205-305.

NAS. 1982. Drinking water and health. Vol. 4. Washington, DC: National Academy of Sciences. National Academy Press, 167-170.

NAS/NRC. 1989. Report of the oversight committee. In: Biologic markers in reproductive toxicology. Washington, DC: National Academy of Sciences, National Research Council, National Academy Press.

Neal C, Smith CJ, Jeffery HA, et al. 1996. Trace element concentrations in the major rivers entering the Humber estuary, NE England. J Hydrol 182:37-64.

Newman J. 1998. Radiographic and endoscopic evaluation of the upper GI tract. Radiol Technol 69(3):213-226.

Newton D, Ancill AK, Naylor KE, et al. 2001. Long-term retention of injected barium-133 in man. Radiat Prot Dosim 97(3):231-240.

Newton D, Harrison GE, Kang C, et al. 1991. Metabolism of injected barium in six healthy men. Health Phys 61(2):191-201.

Newton D, Rundo J, Harrison GE. 1977. The retention of alkaline earth elements in man, with special reference to barium. Health Phys 33:45-53.

Ng A, Patterson CC. 1982. Changes of lead and barium with time in California offshore basin sediments. Geochim Cosmochim Acta 46:2307-2321.

NIOSH. 1987. Method 7056. Barium, soluble compounds. National Institute for Occupational Safety and Health. http://www.cdc.gov/niosh/nmam/. May 20, 2005.

NIOSH. 1989. National occupational exposure survey. Cincinnati, OH: National Occupational Safety and Health.

NIOSH. 1994. Method 7056. Barium, soluble compounds. NIOSH manual of analytical methods. 4th edition. National Institute for Occupational Safety and Health. http://www.cdc.gov/niosh/nmam/pdfs/7056.pdf. August 02, 2005.

NIOSH. 1999. International Chemical Safety Cards (ICSCs). U.S. National Version. National Institute for Occupational Safety and Health. http://www.cdc.gov/niosh/ipcs/nicstart.html. May 7, 2007.

NIOSH. 2003. Method 7300. Elements by ICP (nitric/perchloric acid ashing). NIOSH manual of analytical methods (NMAM). 4th edition. Cincinnati, OH: National Institute for Occupational Safety and Health.

NIOSH. 2005a. Barium chloride. NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention. http://www.cdc.gov/niosh/npg/npgdname.html. February 15, 2004.

NIOSH. 2005b. Barium sulfate. NIOSH pocket guide to chemical hazards. Atlanta, GA: National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention. http://www.cdc.gov/niosh/npg/npgdname.html. February 15, 2004.

NIOSH/OSHA. 1978. Occupational health guidelines for chemical hazards: Soluble barium compounds (as barium). National Institute for Occupational Safety and Health, Occupational Safety and Health Administration.

Nishioka H. 1975. Mutagenic activities of metal compounds in bacteria. Mutat Res 31:185-189.

NRC. 1993. Pesticides in the diets of infants and children. Washington, DC: National Research Council. National Academy Press.

NRC. 1995. Nutrient requirements of laboratory animals. Washington, DC: National Research Council. National Academy Press. http://www.nap.edu/books/0309051266/html/. May 20, 2005.

NTP. 1994. Toxicology and carcinogenesis studies of barium chloride dihydrate -(CAS No. 10326-27-9) in F344/N rats and B6C3F<sub>1</sub> mice. National Toxicology Program. TR432.

NTP. 2005. Report on carcinogens. 11th ed. Research Triangle Park, NC: U.S. Department of Health and Human Services, Public Health Service, National Toxicology Program. http://ntp-server.niehs.nih.gov/ntp/roc/toc11.html. May 15, 2005.

Ogen S, Rosenbluth S, Eisenberg A. 1967. Food poisoning due to barium carbonate in sausage. Isr J Med Sci 3:565-568.

OHM/TADS. 1989. Oil and Hazardous Materials Technical Assistance Data System (database). Chemical Information Systems.

Olehy DA, Schmitt RA, Bethard WF. 1966. Neutron activation analysis of magnesium, calcium, strontium, barium, manganese, cobalt, copper, zinc, sodium, and potassium in human erythrocytes and plasma. J Nucl Med 6:917-927.

Oppenheimer JA, Eaton AD, Leong LYC, et al. 1984. Multielemental analytical techniques for hazardous waste analysis: The state-of-the-art. Las Vegas, NV: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring Systems Laboratory. EPA600484028.

OSHA. 1982. U.S. Department of Labor, Occupational Safety and Health Administration. Fed Regist 47:30420-30434.

OSHA. 1989. U.S. Department of Labor, Occupational Safety and Health Administration. Fed Regist 54:2920.

OSHA. 2005a. Air contaminants. Occupational safety and health standards for shipyard employment. Washington, DC: U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations 29 CFR 1915.1000. http://www.osha.gov/comp-links.html. February 15, 2005.

OSHA. 2005b. Gases, vapors, fumes, dusts, and mists. Safety and health regulations for construction. Washington, DC: U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations 29 CFR 1926.55, Appendix A. http://www.osha.gov/comp-links.html. February 15, 2005.

OSHA. 2005c. Limits for air contaminants. Occupational safety and health standards. Washington, DC: U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000. http://www.osha.gov/comp-links.html. February 15, 2005.

OTA. 1990. Neurotoxicity: Identifying and controlling poisons of the nervous system. Washington, DC: Office of Technology Assessment. OTABA438.

Owen GM, Brozek J. 1966. Influence of age, sex and nutrition on body composition during childhood and adolescence. In: Falkner F, ed. Human development. Philadelphia, PA: WB Saunders, 222-238.

Pascual-Barrera A, Gold-Bouchot G, Ceja-Moreno V, et al. 2004. Heavy metals and hydrocarbons in sediments from three lakes from San Miguel, Chiapas, Mexico. Bull Environ Contam Toxicol 73:762-769.

Parmeggiani L, ed. 1983. Encyclopedia of occupational health and safety. Prepared under the auspices of the International Labour Organization. Vol. II, 3rd ed. Geneva, Switzerland: International Labour Office, 242-244.

Pekey H. 2006. Heavy metal pollution assessment in sediments of the Izmit Bay, Turkey. Environ Monit Assess 123(1-3):219-231.

Perry RH, Chilton CH, eds. 1973. Chemical engineer's handbook. 5th ed. New York, NY: McGraw-Hill Book Co., 3-8.

Perry HM Jr, Kopp SJ, Erlanger MW, et al. 1983. Cardiovascular effects of chronic barium ingestion. Trace Subst Environ Health 17:155-164.

Perry HM Jr, Kopp SJ, Perry EF, et al. 1989. Hypertension and associated cardiovascular abnormalities induced by chronic barium feeding. J Toxicol Environ Health 28:373-388.

Perry HM Jr, Perry EF, Erlanger MW, et al. 1985. Barium-induced hypertension. Adv Mod Environ Toxicol, Inorg Drinking Water Cardio Vasc Dis 9:221-229.

Peyton JC, Borowitz JL. 1978. Effects of Ba<sup>2+</sup> and Cd<sup>2+</sup> on convulsive electroshock sensitivity and <sup>45</sup>Ca distribution in brain subcellular fractions in mice. Toxicol Appl Pharmacol 45:95-103.

Phelan DM, Hagley SR, Guerin MD. 1984. Is hypokalemia the cause of paralysis in barium poisoning? Br Med J 289:882.

Phillips C, Evans J, Hom W, et al. 1998. Long-term changes in sediment barium inventories associated with drilling-related discharges in the Santa Maria Basin, California, USA. Environ Toxicol Chem 17(9):1653-1661.

Pierce FD, Brown HR. 1977. A semi-automated technique for the separation and determination of barium and strontium in surface waters by ion exchange chromatography and atomic emission spectrometry. Anal Lett 10:685-699.

Pijl MEJ, Chaoui AS, Wahl RL, et al. 2002. Radiology of colorectal cancer. Eur J Cancer 38:887-898.

Pourang N, Tanabe S, Rezvani S, et al. 2005. Trace elements accumulation in edible tissues of five sturgeon species from the Caspian Sea. Environ Monit Assess 100:89-108.

Preisman L, Davis LW. 1948. Barium compounds. In: Kirk RE, Othmer DF, eds. Kirk-Othmer encyclopedia of chemical technology. Vol. 2. New York, NY: Interscience Encyclopedia, Inc., 317.

Princenthal RA, Lowman R, Zeman RK, et al. 1983. Ureterosigmoidostomy: The development of tumors, diagnosis, and pitfalls. Am J Roentgenol 141:77-81.

Proctor NH, Hughes JP, Fischman ML, eds. 1988. Chemical hazards of the workplace. 2nd ed. Philadelphia, PA: JB Lippincott Company, 88-89.

Rae T. 1977. Tolerance of mouse macrophages *in vitro* to barium sulfate used in orthopedic bone cement. J Biomed Mater Res 11:839-846.

Rai D, Zachara JM, Schwab AP, et al. 1984. Chemical attenuation rates, coefficients, and constants in leachate migration. Vol. I: A critical review. Palo Alto, CA: Electric Power Research Institute, 6-1 to 6-6. Report EA-3356.

Ramakrishna VVS, Singh V, Garg AN. 1996. Occupational exposure amongst locomotive shed workers and welders using neutron activation analysis of scalp hair. Sci Total Environ 192(3):259-267.

Rasmussen PE, Subramanian KS, Jessiman BJ. 2001. A multi-element profile of housedust in relation to exterior dust and soils in the city of Ottawa, Canada. Sci Total Environ 267:125-140.

Rastogi SC, Pritzl G. 1996. Migration of some toxic metals from crayons and water colors. Bull Environ Contam Toxicol 56:527-533.

Raven KP, Loeppert RH. 1997. Heavy metals in the environment: Trace element composition of fertilizers and soil amendments. J Environ Qual 26:551-557.

Reeves AL. 1979. Barium. In: Friberg L, Nordberg GF, Vouk VB, eds. Handbook on the toxicology of metals. New York, NY: Elsevier/North Holland Biomedical Press, 321-328.

Reeves AL. 1986. Barium. In: Friberg L, Nordberg GF, Vouk VB, eds. Handbook on the toxicology of metals. 2nd ed. New York, NY: Elsevier Science Publishers BV, 84-94.

Renshaw GD. 1973. The determination of barium by flameless atomic absorption spectrophotometry using a modified graphite tube atomizer. At Absorpt Newsl 12:158-160.

Reznik RB, Toy HD Jr. 1978. Source assessment: Major barium chemicals. Cincinnati, OH: U.S. Environmental Protection Agency. EPA600278004b.

Riley RF. 1987. Barium. In: Parker SP, ed. McGraw-Hill encyclopedia of science and technology. Vol. 2, 6th ed. New York, NY: McGraw-Hill Book Company, 397-399.

Roe KK, Froelich PN. 1984. Determination of barium in seawater by direct injection graphite furnace atomic absorption spectrometry. Anal Chem 56:2724-2726.

Roig-Navarro AF, Lopez FJ, Serrano R, et al. 1997. An assessment of heavy metals and boron contamination in workplace atmospheres from ceramic factories. Sci Total Environ 201:225-234.

Rossman TG, Molina M, Meyer L, et al. 1991. Performance of 133 compounds in the lambda prophage induction endpoint of the Microscreen assay and a comparison with *S. typhimurium* mutagenicity and rodent carcinogenicity assays. Mutat Res 260:349-367.

Roy WR. 1994. Groundwater contamination from municipal landfills in the USA. In: Adriano DC, Iskandar A, Murarka IP, eds. Contamination of groundwaters: Case studies. Northwood: Science Reviews, 411-446.

Roza O, Berman LB. 1971. The pathophysiology of barium: Hypokalemic and cardiovascular effects. J Pharmacol Exp Ther 177:433-439.

RTECS. 2007. Registry of Toxic Effects of Chemical Substances (database). Washington, DC: U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health. www.cdc.gov/niosh/rtecs/default.html. May 7, 2007.

Rubin ES. 1999. Toxic releases from power plants. Environ Sci Technol 33:3062-3067.

Sacchetti G. 1972. Gastric emptying of barium sulfate suspensions in humans: A useful tool for clinical investigations. Farmaco Prat 27:80-88.

Saeki Y, Shibata T, Shiozawa K. 1981. Excitation-contraction coupling in mammalian cardiac muscle during Ba<sup>2+</sup>-induced contracture. Am J Physiol 240:H216-H221.

Saito Y, Sakai Y, Urakawa N. 1972. Effect of cholinergic drugs and barium on oxygen consumption in guinea pig taenia coli. Jpn J Pharmacol 22:653-661.

Saleh MA, Wilson BL. 1999. Analysis of metal pollutants in the Houston Ship Channel by inductively coupled plasma/mass spectrometry. Ecotoxicol Environ Saf 44:113-117.

Sax NI, Lewis RJ Sr, eds. 1987. Hawley's condensed chemical dictionary. 11th ed. New York, NY: Van Nostrand Reinhold Company, 117-122.

Sax NI, Lewis RJ Sr, eds. 1989. Dangerous properties of industrial materials. Vol. II, 7th ed. New York, NY: Van Nostrand Reinhold Company.

Sax NI, Feiner B, Fitzgerald JJ, et al. 1984. Dangerous Properties of Industrial Materials. 6th ed. New York, NY: Van Nostrand Reinhold Company.

Schauer J, Kleeman MJ, Cass GR, et al. 1999. Measurement of emissions from air pollution sources 2 C<sub>1</sub> through C<sub>29</sub> organic compounds from medium duty diesel trucks. Environ Sci Technol 33:1578-1587.

Schott GD, McArdle B. 1974. Barium-induced skeletal muscle paralysis in the rat, and its relation to human familial periodic paralysis. J Neurol Neurosurg Psychiatr 37:32-39.

Schramel P. 1988. ICP and DCP emission spectrometry for trace element analysis in biomedical and environmental samples: A review. Spectrochim Acta 43:881-896.

Schroeder HA. 1970. Barium. Air quality monograph. American Petroleum Institute. Washington, DC: Air Quality Monograph No. 70-12.

Schroeder HA, Kraemer LA. 1974. Cardiovascular mortality, municipal water, and corrosion. Arch Environ Health 28:303-311.

Schroeder HA, Mitchener M. 1975a. Life-term studies in rats: Effects of aluminum, barium, beryllium, and tungsten. J Nutr 105:421-427.

Schroeder HA, Mitchener M. 1975b. Life-term effects of mercury, methyl mercury, and nine other trace metals on mice. J Nutr 105:452-453.

Schroeder HA, Tipton IH, Nason AP. 1972. Trace metals in man: Strontium and barium. J Chronic Dis 25:491-517.

Seaton A, Ruckley VA, Addison J, et al. 1986. Silicosis in barium miners. Thorax 41:591-595.

Segreti A, Vocci FJ, Dewey WL. 1979. Antagonism of barium chloride lethality by atropine and naloxone: Analysis by a multivariate logistic model. Toxicol Appl Pharmacol 50:25-30.

Setchell BP, Waites GMH. 1975. The blood-testis barrier. In: Creep RO, Astwood EB, Geiger SR, eds. Handbook of physiology: Endocrinology V. Washington, DC: American Physiological Society.

Shacklette HT, Boerngen JG. 1984. Element concentrations in soils and other surficial materials of the conterminous United States. U.S. Geological Survey Professional Paper. Washington, DC: U.S. Government Printing Office. No. 1270.

Shahin U, Yi SM, Paode RD, et al. 2000. Long-term elemental dry deposition fluxes measured around Lake Michigan with an automated dry deposition sampler. Environ Sci Technol 34:1887-1892.

Shanbaky NM, Emran A, Borowitz JL. 1982. Identification of subcellular organelles involved in Ba<sup>2+</sup>-and Cd<sup>2+</sup>-induced adrenomedullary secretion. Toxicol Appl Pharmacol 62:167-171.

Shankle R, Keane JR. 1988. Acute paralysis from inhaled barium carbonate. Arch Neurol 45:579-580.

Sharp RA, Knevel AM. 1971. Analysis of barium in barium sulfate and diagnostic meals containing barium sulfate using atomic absorption spectroscopy. J Pharm Sci 60:458-460.

Shephard TS, ed. 1989. Catalog of teratogenic agents. 6th ed. Baltimore, MD: The Johns Hopkins University Press, 68.

Shiraishi K, Kawamura H, Tanaka GI. 1987. Determination of alkaline-earth metals in foetus bones by inductively-coupled plasma atomic-emission spectrometry. Talanta 34:823-827.

Shvydko NS, Il'in LA, Norets TA, et al. 1971. Comparative behavior of Sr<sup>89</sup> and Ba<sup>140</sup> in skin following cutaneous application. Gig Sanit 36:386-390.

Sill CW, Willis CP. 1966. Determination of radioisotopes of cerium, barium, lanthanum, and neptunium after separation by barium sulfate. Anal Chem 38:97-102.

\*Silva SA. 2003. Barium toxicity after exposure to contaminated contrast solution- Gois State, Brazil, 2003. MMWR Morb Mortal Wkly Rep 52(43):1047-1048.

Singer PC. 1974. Chemical processes for the removal of trace metals from drinking water. In: Sapoznik AR, O'Connor JT, eds. Trace metals in water supplies: Occurrence, significance, and control. Urbana, IL: Engineering Publications Office, University of Illinois.

Sirover MA, Loeb LA. 1976a. Infidelity of DNA synthesis *in vitro*: Screening for potential metal mutagens or carcinogens. Science 194:1434-1436.

Sirover MA, Loeb LA. 1976b. Metal-induced infidelity during DNA synthesis. Proc Natl Acad Sci 73:2331-2335.

Sommers LE. 1977. Chemical composition of sewage sludges and analysis of their potential use as fertilizers. J Environ Qual 6:225-232.

Sora S, Carbone MLA, Pacciatini M, et al. 1986. Disomic and diploid meiotic products induced in *Saccharomyces cerevisiae* by the salts of 27 elements. Mutagenesis 1:21-28.

Sowden EM. 1958. Trace elements in human tissue: 3. Strontium and barium in non-skeletal tissue. Biochem J 70:712-715.

Sowden EM, Pirie A. 1958. Barium and strontium concentrations in eye tissue. Biochem J 70:716-717.

Sowden EM, Stitch SR. 1957. Trace elements in human tissue: 2. Estimation of the concentrations of stable strontium and barium in human bone. Biochem J 67:104-109.

Spencer RP, Lange RC, Treves S. 1971. Use of <sup>135m</sup>Ba and <sup>131</sup>Ba as bone scanning agents. J Nucl Med 12:216-221.

Spritzer AA, Watson JA. 1964. The measurement of ciliary clearance in the lungs of rats. Health Phys 10:1093-1097.

SRI. 2006. Barium. Directory of chemical producers: United States. Menlo Park, CA: SRI Consulting, 471-472.

Stewart DW, Hummel RP. 1984. Acute poisoning by a barium chloride burn. J Trauma 24:768-770.

Stoewsand GS, Anderson JL, Rutzke M, et al. 1988. Deposition of barium in the skeleton of rats fed Brazil nuts. Nutr Rep Int 38:259-262.

Stokinger HE. 1981. Barium, Ba. In: Clayton GD, Clayton FE, eds. Patty's industrial hygiene and toxicology, Vol. 2A. 3rd ed. New York, NY: John Wiley and Sons, Inc., 1531-1537.

Storm DL. 1994. Chemical monitoring of California's public drinking water sources: Public exposures and health impacts. In: Wang RGM, ed. Water contamination and health: Integration of exposure assessment, toxicology, and risk assessment. New York: Marcel Dekker, Inc., 67-124.

Sugiyama M, Fujino O, Matsui M. 1984. Determination of barium in sea water by graphite furnace atomic absorption spectrometry after preconcentration and separation by solvent extraction. Bunseki Kagaku 33:E123-E129.

Sutton A, Humphreys ER, Shepherd H, et al. 1972. Reduction in the retention of radioactive barium in rats following the addition of sodium alginate derivatives to the diet. Int J Radiat Biol 22:297-300.

Syed IB, Hosain F, Mann NS. 1981. G.I. tract excretion of barium. Am J Proctol Gastroenterol Colon Rectal Surg 32:16, 18, 20.

Tabor EC, Warren WV. 1958. Distribution of certain metals in the atmosphere of some American cities. AMA Arch Ind Health 17:145-151.

Takahashi S, Kubota Y, Sato H, et al. 1993. Retention of <sup>133</sup>Ba in the trachea of rabbits, dogs, and monkeys following local administration as <sup>133</sup>BaSO<sub>4</sub> particles. Inhal Toxicol 5:265-273.

Takahashi S, Patrick G. 1987. Long-term retention of <sup>133</sup>Ba in the rat trachea following local administration as barium sulfate particles. Radiat Res 110:321-328.

Talwar KK, Sharma BK. 1979. Myocardial damage due to barium chloride poisoning. Indian Heart J 31:244-245.

Tanizaki Y, Shimokawa T, Nakamura M. 1992. Physicochemical speciation of trace elements in river waters by size fractionation. Environ Sci Technol 26(7):1433-1444.

Tarasenko NY, Pronin OA, Silaev AA. 1977. Barium compounds as industrial poisons (an experimental study). J Hyg Epidemol Microbiol Immunol 21:361-373.

Tardiff RG, Robinson M, Ulmer NS. 1980. Subchronic oral toxicity of BaCl<sub>2</sub> in rats. J Environ Pathol Toxicol 4:267-275.

Taylor DM, Bligh PH, Duggan MH. 1962. The absorption of calcium, strontium, barium and radium from the gastrointestinal tract of the rat. Biochem J 83:25-29.

Thomas K, Colborn T. 1992. Organochlorine endocrine disruptors in human tissue. In: Colborn T, Clement C, eds. Chemically induced alterations in sexual and functional development: The wildlife/human connection. Princeton, NJ: Princeton Scientific Publishing, 365-394.

Thomas KW, Pellizzari ED, Berry MR. 1999. Population-based dietary intakes and tap water concentrations for selected elements in the EPA Region V National Human Exposure Assessment Survey (NHEXAS). J Expo Anal Environ Epidemiol 9:402-413.

Thomas M, Bowie D, Walker R. 1998. Acute barium intoxication following ingestion of ceramic glaze. Postgrad Med J 74(875):545-546.

Tipton IH, Stewart FL, Dickson J. 1969. Patterns of elemental excretion in long term balance studies. Health Phys 16:455-462.

Tipton IH, Stewart PL, Martin PG. 1966. Trace elements in diets and excreta. Health Phys 12:1683-1689.

Toda N. 1970. Barium-induced automaticity in relation to the calcium ions and norepinephrine in the rabbit left atrium. Circ Res 27:45-57.

TRI04. 2006. TRI explorer: Providing access to EPA's toxics release inventory data. Washington, DC: Office of Information Analysis and Access. Office of Environmental Information. U.S. Environmental Protection Agency. Toxics Release Inventory. http://www.epa.gov/triexplorer/. August 19, 2006.

Tuovinen OH, Button KS, Vuorinen CL, et al. 1980. Bacterial, chemical, and mineralogical characteristics of tubercles in distribution pipelines. J Am Water Works Assoc 72:626-635.

USGS. 1985. Barium, atomic absorption spectrometric, direct. Denver, CO: U.S. Geological Survey. http://reports.er.usgs.gov/reports. April 16, 2005.

USGS. 2002a. Chapter I. The determination of forty-two elements in geological materials by inductively coupled plasma – mass spectrometry. In: Taggart JE, ed. Analytical methods for chemical analysis of geologic and other materials. U.S. Geological Survey. Open File Report 02-223-I, 1-14.

USGS. 2002b. Chapter G. The determination of forty elements in geological and botanical samples by inductively coupled plasma – atomic emission spectrometry. In: Taggart JE, ed. Analytical methods for chemical analysis of geologic and other materials. U.S. Geological Survey. Open File Report 02-223-G, 1-18.

USGS. 2002c. Sediment database and geochemical assessment of Lake Pontchartrain Basin, Chapter J. Manheim, FT, Hayes, L (eds.), Lake Pontchartrain Basin: Bottom sediments and related environmental resources: U.S. Geological Survey professional paper 1634. http://pubs.usgs.gov/prof/p1634. September 19, 2006.

USGS. 2004. Barite. U.S. Geological Survey minerals yearbook. USGS, 9.1-9.3, Tables 1-7. http://minerals.usgs.gov/minerals/pubs/commodity/barite/baritmyb04.pdf. September 12, 2006.

USGS. 2006. Barite. U.S. Geological Survey, Mineral Commodity Summary. http://minerals.usgs.gov/minerals/pubs/commodity/barite/baritmcs06.pfd. September 12, 2006.

Van Duuren BL, Sivak A, Langseth L, et al. 1968. Initiators and promoters in tobacco carcinogenesis. World Conference on smoking and health: Toward a less harmful cigarette. National Cancer Institute Monograph 28:173-180.

Venugopal B, Luckey TD. 1978. Metal toxicity in mammals. 2nd ed. New York, NY: Plenum Press, 63-67.

Vieira I, Sonnier M, Cresteil T. 1996. Developmental expression of CYP2E1 in the human liver: Hypermethylation control of gene expression during the neonatal period. Eur J Biochem 238(2):476-483.

Volkl H, Greger R, Lang F. 1987. Potassium conductance in straight proximal tubule cells of the mouse. Effect of barium, verapamil and quinidine. Biochim Biophys Acta 900:275-281.

Weast RC, ed. 1989. CRC handbook of chemistry and physics. 70th ed. Boca Raton, Florida: CRC Press, Inc., B.73-B.75.

Weiss G, ed. 1986. Hazardous chemicals data book. 2nd ed. Park Ridge, NJ: Noyes Data Corporation, 144, 146.

Welch SP, Vocci FJ, Dewey WL. 1983. Antinociceptive and lethal effects of intraventricularly administered barium and strontium: Antagonism by atropine sulfate or naloxone hydrochloride. Life Sci 33:359-364.

Wells JA, Wood KE. 2001. Acute barium poisoning treated with hemodialysis. Am J Emerg Med 19(2):175-177.

West JR, Smith HW, Chasis H. 1948. Glomerular filtration rate, effective renal blood flow, and maximal tubular excretory capacity in infancy. J Pediatr 32:10-18.

Wetherill SF, Guarino MJ, Cox RW. 1981. Acute renal failure associated with barium chloride poisoning. Ann Intern Med 95:187-188.

WHO. 2000. Air quality guidelines. 2nd ed. Geneva, Switzerland: World Health Organization. http://www.euro.who.int/air/Activities/20050104\_1. February 15, 2005.

WHO. 2001. Barium and barium compounds. Geneva, Switzerland: World Health Organization. http://www.inchem.org/documents/ehc/ehc/ehc221.htm. April 01, 2005.

WHO. 2004. Guidelines for drinking-water quality. 3rd ed. Geneva, Switzerland: World Health Organization. http://www.who.int/water\_sanitation\_health/dwq/gdwq3/en/. February 15, 2005.

Widdowson EM, Dickerson JWT. 1964. Chemical composition of the body. In: Comar CL, Bronner F, eds. Mineral metabolism: An advanced treatise. Volume II: The elements Part A. New York: Academic Press.

Wilkie PJ, Hatzimihalis G, Koutoufides P, et al. 1996. The contribution of domestic sources to levels of key organic and inorganic pollutants in sewage: The case of Melbourne, Australia. Water Sci Technol 34(3-4):63-70.

Windholz M, ed. 1976. The Merck index. 9th ed. Rahway, NJ: Merck & Co, Inc., 127-131.

Windholz M, ed. 1983. The Merck index. 10th ed. Rahway, NJ: Merck & Co, Inc., 965-993.

Winkler J. 2002. Barium and barium compounds: Barium in the environment. Ullmann's encyclopedia of industrial chemistry. John Wiley & Sons, Inc.

Wones RG, Stadler BL, Frohman LA. 1990. Lack of effect of drinking water barium on cardiovascular risk factors. Environ Health Perspect 85:355-359.

Worthing CR, ed. 1987. The pesticide manual: A world compendium. 8th ed. Thornton Heath, UK: The British Crop Protection Council, 857.

Yamamura M, Nishi M, Furubayashi H, et al. 1985. Barium peritonitis: Report of a case and review of the literature. Dis Colon Rectum 28:347-352.

Yesilada E. 2001. Genotoxicity testing of some metals in the *Drosophila* wing somatic mutation and recombination test. Bull Environ Contam Toxicol 66(4):464-469.

Zenz C, Dickerson OB, Horvath EP, eds. 1994. In: Zenz C, Dickerson OB, Horvath EP, eds. Occupational medicine. 3rd ed. St Louis: Mosby, 721-722, 747-748.

Ziegler EE, Edwards BB, Jensen RL, et al. 1978. Absorption and retention of lead by infants. Pediatr Res 12(1):29-34.

Zschiesche W, Schaller K-H, Welte D. 1992. Exposure to soluble barium compounds: An interventional study in arc welders. Int Arch Occup Environ Health 64:13-23.