

## 9. REFERENCES

- \*Aamodt RL. 1973. Retention and excretion of injected 181 labeled sodium tungstate by beagles. *Health Phys* 24:519-524.
- \*Aamodt RL. 1975. Inhalation of 181-W labeled tungstic oxide by six beagle dogs. *Health Phys* 28(6):733-742.
- \*ACGIH. 2003. Tungsten. 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. *Fed Regist* 54(174):37618-37634.
- \*Agency for Toxic Substances and Disease Registry. 1990. Biomarkers of organ damage or dysfunction for the renal, hepatobiliary, and immune systems. Atlanta, GA: Subcommittee on Biomarkers of Organ Damage and Dysfunction, Agency for Toxic Substances and Disease Registry.
- Agency for Toxic Substances and Disease Registry. 2001. Public health assessment: Blackbird Mine, cobalt, Lemhi County, Idaho: Agency for Toxic Substances and Disease Registry. <http://atsdr.cdc.gov/HAC/PHA/blackbird/blapl.html>. May 29, 2001.
- \*Agency for Toxic Substances and Disease Registry. 2003. Health consultation: Public comment release. Churchill County tap water. Fallon leukemia project. Fallon, Churchill County, Nevada, July 18, 2003. Atlanta, GA: Agency for Toxic Substances and Disease Registry. <http://www.atsdr.cdc.gov>. January 04, 2005.
- \*Agency for Toxic Substances and Disease Registry. 2004. Toxicological profile for cobalt. Atlanta, GA: Agency for Toxic Substances and Disease Registry. <http://www.atsdr.cdc.gov/toxprofiles/tp33.pdf>. April 27, 2005.
- \*Agency for Toxic Substances and Disease Registry. 2005. Toxicological profile for nickel. Atlanta, GA: Agency for Toxic Substances and Disease Registry.
- Agnihotri N, Mehta J. 2004. Extraction spectrometric determination of tungsten(VI) using 3-hydroxy-2(2'-thienyl)-4-oxo-4H-1-benzopyran. *Ann Chim (Rome)* 94(4):341-346.

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\* Cited in text

## 9. REFERENCES

- \*Águas AP, Grande NR, Carvalho E. 1991. Inflammatory macrophages in the dog contain high amounts of intravesicular ferritin and are associated with pouches of connective tissue fibers. *Am J Anat* 190:89-96.
- Alexandersson R. 1988. Tungsten, cobalt, and their compounds. In: Zenz C, ed. *Occupational medicine: Principles and practical applications*. Chicago, IL, 624-629.
- Almen A, Ahlgren L, Mattsson S. 1991. Absorbed dose to technicians due to induced activity in linear accelerators for radiation therapy. *Phys Med Biol* 36(6):815-822.
- \*Altman PL, Dittmer DS. 1974. In: *Biological handbooks: Biology data book*. Vol. III. 2<sup>nd</sup> ed. Bethesda, MD: Federation of American Societies for Experimental Biology, 1987-2008, 2041.
- Amandus H, Costello J. 1991. Silicosis and lung cancer in the U.S. metal miners. *Arch Environ Health* 46(2):82-89.
- \*Anard D, Kirsch-Volders M, Elhajouji A, et al. 1997. *In vitro* genotoxic effects of hard metal particles assessed by alkaline single cell gel and elution assays. *Carcinogenesis* 18(1):177-184.
- \*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.
- \*Ando A, Ando I, Hirako T, et al. 1989. Relation between the location of elements in the periodic table and various organ-uptake rates. *Nucl Med Biol* 16(1):57-80.
- Anonymous. 1986. Bronchopulmonary diseases caused by hard metal dusts. Early detection of occupational diseases. Geneva: World Health Organization, 26-29.
- \*Arnórsson S, Lindvall R. 2001. The distribution of arsenic, molybdenum and tungsten in natural waters in basaltic terrain, N-Iceland. In: Cidu R, ed., *Water-rock interaction: Proceedings of the tenth international symposium on water-rock interaction, WRI-10, Villasimius Italy 10-15 July 2001*. tterdam, Netherlands: AA. Balkema, 961-964.
- \*Ashford RD. 1994. *Ashford's dictionary of industrial chemicals: properties, production, uses*. London, England: Wavelength Publications, Ltd.
- Ayrault S, Bonhomme P, Carrot F, et al. 2001. Multianalysis of trace elements in mosses with inductively coupled plasma – mass spectrometry. *Biol Trace Element Res* 79:177-184.
- \*Bachthaler M, Lenhart M, Paetzel C, et al. 2004. Corrosion of tungsten coils after peripheral vascular embolization therapy: Influence on outcome and tungsten load. *Catheter Cardiovas Interv* 62(3):380-340.
- \*Ballou JE. 1960. Metabolism of W185 in the rat. AEC Research and Development Report HW64112.

## 9. REFERENCES

- \*Bárány E, Bergdahl IA, Bratteby, L-E, et al. 2002a. Trace elements in blood and serum of Swedish adolescents: Relation to gender, age, residential area, and socioeconomic status. Environ Res 89(Section A):72-84.
- \*Bárány E, Bergdahl IA, Bratteby L-E, et al. 2002b. Trace element levels in whole blood and serum from Swedish adolescents. Sci Total Environ 286:129-141.
- Bárány E, Bergdahl IA, Schütz A, et al. 1997. Inductively coupled plasma mass spectrometry for direct multi-element analysis of diluted human blood and serum. J Anal Atom Spectrom 12:1005-1009.
- Barbera A, Fernandez-Alvarez J, Truc A, et al. 1997. Effects of tungstate in neonatally streptozotocin-induced diabetic rats: mechanism leading to normalization of glycaemia. Diabetologia 40:143-149.
- Barbera A, Gomis RR, Prats N, et al. 2001. Tungstate is an effective antidiabetic agent in streptozotocin-induced diabetic rats: a long-term study. Diabetologia 44:507-513.
- \*Barborik M. 1972. [Excretion of cobalt and tungsten in workers in the production of heavy metals. II. Daily excretion of tungsten in urine. Influence of CaNa<sub>2</sub>EDT and penicillamine on its excretion.] Prac Lek 24(8):295-297. (Czech)
- \*Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. Regul Toxicol Pharmacol 8:471-486.
- Bartl F, Lichtenstein ME. 1975. Tungsten carbide pulmonary fibrosis - a case report. Am Ind Hyg Assoc J 37:668-670.
- Baudouin J, Jobard P, Moline J, et al. 1975. Diffuse interstitial pulmonary fibrosis. Responsibility of hard metals. Nouv Presse Med 4:1353-1355.
- \*Bech AO. 1974. Hard metal disease and tool room grinding. J Soc Occup Med 24:11-16.
- \*Bech AO, Kipling MD, Heather JC. 1962. Hard metal disease. Br J Ind Med 19:239-252.
- Bell MC, Sneed MN. 1973. Metabolism of tungsten by sheep and swine. In: Mills CF, ed. Trace element metabolism in animals, 70-72.
- Belson M, Holmes A, Funk A, et al. 2003. Cross-sectional exposure assessment of environmental contaminants in Churchill County, Nevada. J Toxicol Clin Toxicol 41(5):722.
- \*Berg T, Steinnes E. 1997. Use of mosses (*Hylocomium splendens* and *Pleurozium schreberi*) as biomonitorors of heavy metal deposition: From relative to absolute deposition values. Environ Pollut 98(1):61-71.
- \*Berger GS. 1994. Epidemiology of endometriosis. In: Berger GS, ed. Endometriosis: Advanced management and surgical techniques. New York, NY: Springer-Verlag.
- \*Bibak A, Behrens A, Sturup S, et al. 1998. Concentrations of 63 major and trace elements in Danish agricultural crops measured by inductively coupled plasma mass spectrometry. 1. Onion (*Allium cepa* Hysam). J Agric Food Chem 46:3139-3145.

## 9. REFERENCES

- Bibr B, Deyl Z, Lener J, et al. 1987. The mechanism of action of molybdenum and tungsten upon collagen structures in vivo. *Physiol Bohemoslov* 36:417-425.
- \*Bidleman TF. 1988. Atmospheric processes. Wet and dry deposition of organic compounds are controlled by their vapor-particle partitioning. *Environ Sci Technol* 22:361-367
- \*Bingham E, Cohressen B, Powell CH. 2001. Tungsten. In: *Patty's toxicology*. New York, NY: John Wiley & Sons, 106-128.
- Black RG, Abraham J, Ward AA. 1967. The preparation of tungstic acid gel and its use in the production of experimental epilepsy. *Epilepsia* 8:58-63.
- \*Bohm P, Wolterbeek H, Verburg T, et al. 1998. The use of tree bark for environmental pollution monitoring in the Czech Republic. *Environ Pollut* 102:243-250.
- Boman A, Fischer T, Hagelthorn G, et al. 1982. Guinea pig maximization test with tungstate. *Contact Dermatitis* 5:344.
- \*Bowen HJM. 1960. The determination of tungsten in biological material by activation analysis. *Biochem J* 77:79-82.
- \*Bowen HJM. 1966. Trace elements in biochemistry. New York, NY: Academic Press, 118-184.
- Browning E. 1961. Tungsten. Toxicity of industrial metals. London: Butterworth and Co., 301-304.
- \*Brune D, Nordberg G, Wester PO. 1980. Distribution of 23 elements in the kidney, liver and lungs of workers from a smeltery and refinery in north Sweden exposed to a number of elements and of a control group. *Sci Total Environ* 16:13-35.
- \*Budavari S, O'Neil MJ, Smith A, et al., eds. 2001. In: *The Merck index an encyclopedia of chemicals, drugs and biologicals*. Whitehouse Station, NJ: Merck & Co., Inc., 440, 462.
- Bundschuh J, Farias B, Martin R, et al. 2003. Groundwater arsenic in the Chaco-Pampean Plain, Argentina: Case study from Robles county, Santiago del Estero Province. *Appl Geochem* 19(2):231-243.
- \*Callis GE, Wentworth RA. 1977. Tungsten vs. molybdenum in models for biological systems. *Bioinorg Chem* 7:57-70.
- Capilna S, Ghizari E, Ababei L. 1963a. Some modifications in the glutamine metabolism in the rat liver and brain under the action of molybdenum and tungsten. *Stud Cercet Fisiol* 8(1):75-80.
- Capilna S, Ghizari E, Ababei L, et al. 1963b. Effect of molybdenum and tungstate ions on intermediate metabolism of glutamine in rat liver and brain. *Nature* 200:470.
- \*Cardin CJ, Mason J. 1976. Molybdate and tungstate transfer by rat ileum competitive inhibition by sulphate. *Biochim Biophys Acta* 455:937-946.
- Caujolle F, Chanh P-H. 1967. Toxicité compare du chromate, du molybdate, du tungstate et du métavanadate de sodium. *Agressologie* 8(3):265-273.

## 9. REFERENCES

- \*CDC. 2003a. Second national report on human exposure to environmental chemicals. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention, 45-47.
- \*CDC. 2003b. Cross sectional exposure assessment of environmental contaminants in Churchill County, Nevada. Atlanta, GA: Centers for Disease Control and Prevention, 1-47.
- \*CDC. 2003c. Churchill County (Fallon), Nevada exposure assessment. Follow-up investigation: Exposure to tungsten in three Nevada communities. Centers for Disease Control and Prevention. [http://www.cdc.gov/nceh/clusters/fallon/tungsten\\_report.pdf](http://www.cdc.gov/nceh/clusters/fallon/tungsten_report.pdf). December 28, 2004.
- Chakrabarti AK, Saswati PB. 1972. Spectrophotometric determination of tungsten with disodium cis-1,2-dicyanoethylene dithiolate. *Anal Chim Acta* 59:225-230.
- Challen PJR, Hickish DE, Bedford J. 1957. An investigation of some health hazards in an inert-gas tungsten-arc welding shop. *Br J Ind Med* 15:276-282.
- Chanh PH. 1965a. The comparative toxicity of sodium chromate, molybdate, tungstate and metavanadate. I-Experiments on mice and rats. *Arch Int Pharmacodyn Ther* 154(1):243-249.
- Chanh PH. 1965b. The comparative toxicity of sodium chromate, molybdate, tungstate and metavanadate. II-Experiments on rabbits. *Arch Int Pharmacodyn Ther* 157(1):109-114.
- Chanh PH, Chanvattey S. 1967. Comparative toxicity of sodium chromate, molybdate, tungstate and metavanadate of sodium: V. Experiment in pigeons, chicks and rats. *Agressologie* 8(5):433-439.
- Chanh PH, Azum-Gelade MC, Chanvattey S. 1967. Comparative toxicity of sodium chromate, molybdate, tungstate, and metavanadate. 3 tests done on cats. *Agressologie* 8(1):51-60.
- Chaschina NM, Lyalikova NN. 1970. Role of bacteria in transformation of tungsten minerals. *Soil Biol Biochem* 89:104-108.
- \*ChemFinder. 2004. Tungsten. Chemfinder.com: Database and internet searching. <http://www.chemfinder.com>. April 27, 2005.
- \*ChemIDplus. 2004. Division of Specialized Information Services, NLM. <http://chem.sis.nlm.nih.gov/chemidplus/cmplxqry.html>. April 27, 2005.
- Chen J, McLaughlin JK, Zhang J-Y, et al. 1992. Mortality among dust-exposed Chinese mine and pottery workers. *J Occup Med* 34(3):311-316.
- Chertok RJ, Lake S. 1971a. Availability in the peccary pig of radionuclides in nuclear debris from the plowshare excavation buggy. *Health Phys* 20:313-316.
- Chertok RJ, Lake S. 1971b. Biological availability of radionuclides produced by the plowshare event schooner. I. Body distribution in domestic pigs exposed in the field. *Health Phys* 20:317-324.
- Chertok RJ, Lake S. 1971c. Biological availability of radionuclides produced by the plowshare event schooner. II. Retention and excretion rates in peccaries after a single oral dose of debris. *Health Phys* 20:325-330.

## 9. REFERENCES

- Christiani DC, Wegman DH. 1995. Respiratory disorders. In: Levy BS, Wegman DH, eds. Occupational health. Recognizing and preventing work-related disease. Third Edition. Boston, Massachusetts: LittleBrown and Company, 427-454.
- Claret M, Corominola H, Casamitjana R, et al. 2002. Tungstate treatment reduced body weight in diet-induced obesity. *Diabetologia* 44:A182.
- \*Clewel HJ III, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. *Toxicol Ind Health* 1(4):111-131.
- \*Coates EO, Watson JHL. 1971a. Diffuse interstitial lung disease in tungsten carbide workers. *Ann Intern Med* 75:709-716.
- \*Coates EO, Watson JHL. 1971b. Pathology of the lung in tungsten carbide workers using light and electron microscopy. *J Occup Med* 15(3):280-286.
- \*Colborn T, Clement C. 1992. Chemically induced alterations in sexual and functional development. The Wildlife/Human Connection. In: Advances in modern environmental toxicology. Volume XXI. Princeton, NJ: Princeton Scientific Publishing Co.
- Costa DL, Lehmann JR, Kutzman RS, et al. 1990. Lung function structure and composition in rats subchronically exposed to dusts of tungsten carbide and cobalt alone and in combination. *Am Rev Respir Dis* 141(4pt2):A423.
- \*Cugell DW, Morgan WKC, Perkins DG, et al. 1990. The respiratory effects of cobalt. *Arch Intern Med* 150:177-183.
- \*Dames R, Robbins JA, Rahn KA. 1970. Nondestructive neutron activation analysis of air pollution particulates. *Anal Chem* 42(8):861-867.
- \*Davison AG, Haslam PL, Corrin B, et al. 1983. Interstitial lung disease and asthma in hard-metal workers: bronchoalveolar lavage, ultrastructural, and analytical findings and results of bronchial provocation tests. *Thorax* 38:119-128.
- De Boeck M, Hoet P, Lombaert N, et al. 2003a. *In vivo* genotoxicity of hard metal dust: Induction of micronuclei in rat type II epithelial lung cells. *Carcinogenesis* 24(11):1793-1800.
- De Boeck M, Lombaert N, De Backer S, et al. 2003b. *In vitro* genotoxic effects of different combinations of cobalt and metallic carbide particles. *Mutagenesis* 18(2):177-186.
- \*Delahant AB. 1955. An experimental study of the effects of rare metals on animal lungs. *Arch Ind Health* 12:116-120.
- De Goeij JJM, Guinn VP, Young DR, et al. 1973. Activation analysis trace element studies of Dover sole liver and marine sediments. *Nucl Sci Abstr* 29(3):4794.
- De Hauteclocque C, Morisset M, Kanny G, et al. 2002. [Occupational asthma due to hard metals hypersensitivity.] *Rev Mal Resp* 19(3):363-365. (French)
- \*Dermatas D, Braida W, Christodoulatos C, et al. 2004. Solubility, sorption, and soil respiration effects of tungsten and tungsten alloys. *Environ Forensics* 5(1):5-13.

## 9. REFERENCES

- \*De Renzo EC. 1954. Studies of the nature of the xanthine oxidase factor. Ann NY Acad Sci 57:905-908.
- \*De Sousa Pereira A, Grande NR, Carvalho E, et al. 1992. Evidence of drainage of tungsten particles introduced in the pleural space through the visceral pleura into the lung parenchyma. Acta Anat 145:416-419.
- Desoille H, Brouet G, Assouly M, et al. 1962. Diffuse pulmonary fibrosis in a subject exposed to dusts of cobalt and tungsten carbide (hard metal industry). Discussion of a simple coincidence or a possible cause-effect relationship. Arch Mal Prof 23(9):570-575.
- Devyathka DG, Val'chuk NK. 1970. On the effect of molybdenum on immunological reactivity. Hyg Sanit 36:133-135.
- \*DiPaolo JA, Casto BC. 1979. Quantitative studies of *in vitro* morphological transformation of Syrian hamster cells by inorganic metal salts. Cancer Res 39:1008-1013.
- Domingo JL. 2002. Vanadium and tungsten derivatives as antidiabetic agents: A review of their toxic effects. Biol Trace Elem Res 88(2):97-112.
- Domínguez JE, Muñoz MC, Zafa D, et al. 2003. The antidiabetic agent sodium tungstate activates glycogen synthesis through an insulin receptor-independent pathway. J Biol Chem 278(44):42785-42794.
- Dontsov GI. 1966. Some problems of tungsten metabolism in epidemic hepatitis. Sov Med 29(12):14-17.
- Dontsov GI. 1969. Tungsten content of the human organism and its metabolism in patients with infectious hepatitis. Sov Med 32(1):151.
- \*Dow Chemical Company. 1982. Tungsten chloride: Acute toxicological properties and industrial handling hazards. U.S. Environmental Protection Agency, Office of Toxic Substances. OTS8EH0-0592-3885S.
- Durbin PW. 1960. Metabolic characteristics within a chemical family. Health Phys 2:225-238.
- Durbin PW, Scott KG, Hamilton JG. 1957. The distribution of radioisotopes of some heavy metals in the rat. Publications in pharmacology. 3(1) Berkeley, California: University of California, 1-34.
- \*Edel J, Sabbioni E, Pietra R, et al. 1990. Trace metal lung disease: In vitro interaction of hard metals with human lung and plasma components. Sci Total Environ 95:107-118.
- Elwell WT, Wood DF. 1971. Analytical chemistry of molybdenum and tungsten (Including the analysis of the metals and their alloys). New York, NY: Pergamon Press, 1-239.
- 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. 1997a. Automated Form R for Windows: User's guide (RY97). Washington, DC: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics.

## 9. REFERENCES

EPA. 1997b. Nonmethane organic compounds (NMOC) and speciated nonmethane organic compounds (SNMOC) monitoring program. Research Triangle Park, NC: U.S. Environmental Protection Agency. PB99158701.

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

\*EPA. 2005a. Effluent guidelines and standards. Nonferrous metals manufacturing point source category. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations 40 CFR 421.100.

\*EPA. 2005b. Effluent guidelines and standards. Nonferrous metals manufacturing point source category. Washington, DC: U.S. Environmental Protection Agency. Code of Federal Regulations 40 CFR 421.310.

Essington ME, Mattogod SV. 1991. Trace element solid-phase associations in sewage sludge and sludge-amended soil. *Soil Sci* 55(2):350-356.

FDA. 2003. Food and drug administration total diet study. Summary of residues found ordered by pesticide market baskets 91-3-911. <http://www.cfsan.fda.gov/~acrobat/TDS1byps.pdf>. April 27, 2005.

\*FEDRIP. 2004. Dialog Information Systems, Inc. Palo Alto, CA: Federal Research in Progress.

\*Feldmann J, Cullen WR. 1997. Occurrence of volatile transition metal compounds in landfill gas: synthesis of molybdenum and tungsten carbonyls in the environment. *Environ Sci Technol* 31:2125-2129.

\*Fernandez MA, Martinez L, Segarra M, et al. 1992. Behavior of heavy metals in the combustion gases of urban waste incinerators. *Environ Sci Technol* 26(5):1040-1047.

\*Ferri T, Morabito R, Sangiorgio P, et al. 1999. Determination of As, Mo, V, W in environmental samples. *Annali di Chimica* 89(9-10):699-710.

Fillat C, Rodriguez-Gil JE, Guinovart JJ. 1992. Molybdate and tungstate act like vanadate on glucose metabolism in isolated hepatocytes. *Biochem J* 282:659-663.

Finkleman RB. 1999. Trace elements in coal. Environmental and health significance. *Biol Trace Elem Res* 67:197.

Fischer T, Rystedt I. 1985. Hand eczema among hard-metal workers. *Am J Ind Med* 8:381-394.

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

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

Fortner E, Faure G. 2003. Possible contamination of the Sandusky River by wastewater discharge by Bucyrus, Ohio. *Ohio J Sci* 103(4):84-88.

## 9. REFERENCES

- \*Frank A, Peterson LR. 1983. Selection of operating conditions and analytical procedure in multimetal analysis of animal tissue by d.c. plasma-atomic emission spectroscopy. *Spectrochim Acta, Part B* 38B(1-2):207-220.
- \*Fredrick WG, Bradley WR. 1946. Toxicity of some materials used in the manufacture of cemented tungsten carbide tools. *Ind Med* 15(8):482-483.
- \*Freitas MC, Vaz Carreiro MC, Reid MF, et al. 1988. Determination of the level of some heavy metals in an aquatic ecosystem by instrumental neutron activation analysis. *Environ Technol Lett* 9:969-976.
- \*Fu MH, Tabatabai MA. 1988. Tungsten content of soils, plants, and sewage sludges in Iowa USA. *J Environ Biol* 17(1):146-148.
- \*Furr AK, Lawrence AW, Tong SSC, et al. 1976. Multielement and chlorinated hydrocarbon analysis of municipal sewage sludges of American cities. *Environ Sci Technol* 10(7):683-687.
- Gallorini M, Pesavento M, Profumo A, et al. 1993. Analytical related problems in metal and trace elements determination in industrial waste landfill leachates. *Sci Total Environ* 133:285-298.
- Garg AN, Chutke NL, Ambulkar MN, et al. 1996. An evaluation of the environmental implications of petroleum refinery emissions by multielemental neutron activation analysis of rumen fluid ash of buffaloes. *Appl Radiat Isot* 47(5/6):581-586.
- Garner CD, Stewart LJ. 2002. Tungsten-substituted molybdenum enzymes. In: Sigel A, Sigel H, eds. Metal ions in biological systems. Molybdenum and tungsten: Their roles in biological processes. New York, NY: Marcel Dekker, Inc.
- \*Germani MS, Small MZ, et al. 1981. Fractionation of elements during copper smelting. *Environ Sci Technol* 15(3):299-305.
- Girón MD, Caballero JJ, Vargas AM, et al. 2003. Modulation of glucose transporters in rat diaphragm by sodium tungstate. *FEBS Lett* 542(1-3):84-88.
- \*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.
- \*Grande NR, Moreira de Sá C, Águas AP, et al. 1990. Time course and distribution of tungsten-laden macrophages in the hilar lymph nodes of the dog lung after experimental instillation of calcium tungstate into the left apical bronchus. *Lymphology* 23:171-182.
- \*Graney JR, Landis MS, Norris GA. 2004. Concentrations and solubility of metals from indoor and personal exposure PM<sub>2.5</sub> samples. *Atmos Environ* 38(2):237-247.
- \*Gunnison AF, Sellakumar A, Snyder EA, et al. 1988. The effect of inhaled sulfur dioxide and systemic sulfite on the induction of lung carcinoma in rats by benzo[a]pyrene. *Environ Res* 46:59-73.
- \*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.

## 9. REFERENCES

- \*Haddad E, Zikovsky L. 1985. Determination of Al, As, Cr, Cs, Fe, Mn, Sb, Sc, W and Zn in the workroom air by instrumental neutron activation analysis. *J Radioanal Nucl Chem* 93(6):371-378.
- \*Hall GEM, Jefferson CA, Michel FA. 1988. Determination of tungsten and molybdenum in natural spring waters by ICP-AES (inductively coupled plasma atomic emission spectrometry) and ICP-MS (inductively coupled plasma mass spectrometry): Application to South Nahanni River area, N.W.T., Canada. *J Geochem Explor* 30(1):63-84.
- Hammarstrom JM, Seal RR, Meier AL, et al. 2003. Weathering of sulfidic shale and copper mine waste: Secondary minerals and metal cycling in Great Smoky Mountains National Park, Tennessee, and North Carolina, USA. *Environ Geol* 45(1):35-57.
- \*Harding HE. 1950. Notes on the toxicology of cobalt metal. *Br J Ind Med* 7:76-78.
- \*Hartung M. 1991. Tungsten. In: Merian E, ed. *Metals and their compounds in the environment*. Weinheim, Germany: VCH, 1269-1272.
- \*HazDat. 2005. 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](http://www.atsdr.cdc.gov/hazdat.html). April 2005.
- \*Heath JC. 1954. Cobalt as a carcinogen. *Nature* 173:822-823.
- \*Heath JC. 1956. The production of malignant tumours by cobalt in the rat. *Br J Cancer* 10:668-673.
- \*Heath JC, Daniel MR. 1964. The production of malignant tumours by nickel in the rat. *Br J Cancer* 18:261-264.
- Heit M, Schofield C, Driscoll CT, et al. 1989. Trace element concentrations in fish from three Adirondack lakes with different pH values. *Water Air Soil Pollut* 44:9-30.
- Herbel MJ, Blum JS, Hoeft SE, et al. 2002. Dissimilatory arsenate reductase activity and arsenate-respiring bacteria in bovine rumen fluid, hamster feces, and the termite hindgut. *FEMS Microbiol Ecol* 41(1):59-67.
- \*Higgins ES, Richert DA, Westerfield WW. 1956a. Competitive role of tungsten in molybdenum nutrition. *Fed Proc* 15:274-275.
- \*Higgins ES, Richert DA, Westerfield WW. 1956b. Molybdenum deficiency and tungstate inhibition studies. *J Nutr* 59:539-559.
- \*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.
- Hornig CJ, Lin SR. 1997. Determination of urinary zinc, chromium, and copper in steel production workers. *Biol Trace Elem Res* 55:307-315.
- \*HSDB. 2004. Tungsten. Hazardous Substances Data Bank. National Library of Medicine. <http://toxnet.nlm.nih.gov>. December 2004.

## 9. REFERENCES

- \*Huang C-Y, Ming LN, Shu-Yu L, et al. 2002. Determination of vanadium, molybdenum and tungsten in complex matrix samples by chelation ion chromatography and on-line detection with inductively coupled plasma mass spectrometry. *Anal Chim Acta* 466(1):161-174.
- Huaux F, Lasfargues G, Lauwers R, et al. 2003. Lung toxicity of hard metal particles and production of interleukin-1, tumor necrosis factor-alpha, fibronectin, and cystatin-c by lung phagocytes. *Toxicol Appl Pharmacol* 132(1):53-62.
- \*Hull RD, Haartz JC. 1980. Determination of soluble/insoluble tungsten compounds as discrete entities in industrial hygiene samples. *Anal Chim Acta* 121:187-196.
- \*Huntingdon Life Sciences LTD. 1999a. Sodium tungstate dihydrate. Acute (four-hour) inhalation study in rats. Cambridgeshire, England: ITU 007983498.
- \*Huntingdon Life Sciences LTD. 1999b. Tungsten metal powder. Acute (four-hour) inhalation study in rats. Cambridgeshire, England: ITU 025983503.
- \*Huntingdon Life Sciences LTD. 1999c. Sodium tungstate dihydrate. Eye irritation to the rabbit. Cambridgeshire, England: ITU 005982804SE.
- \*Huntingdon Life Sciences LTD. 2000. Tungsten metal powder. Eye irritation to the rabbit. Cambridgeshire, England: ITU 023982949SE.
- Hwang PL, Ryan RJ. 1981. Tungstate stimulates adenylate cyclase. *Endocrinology* 108:435-439.
- \*ICRP. 1979. Limits for intakes of radionuclides by workers. Commission of Radiological Protection. ICRP Publication 30, Part 1. New York: Pergamon Press.
- \*ICRP. 1981. Limits for intakes of radionuclides by workers. Commission of Radiological Protection. ICRP Publication 30, Part 3. New York: Pergamon Press, 93-95.
- \*ICRP. 1994a. Human respiratory tract model for radiological protection. International Commission of Radiological Protection. ICRP Publication 66. New York: Pergamon Press.
- \*ICRP. 1994b. Dose coefficients for intakes of radionuclides by workers. Replacement of ICRP Publication 61. International Commission of Radiological Protection. ICRP Publication 68. New York: Pergamon Press, 83.
- \*ICRP. 2001. The ICRP database of dose coefficients: Workers and members of the public. New York: Pergamon Press. CD-ROM
- \*Idiyatullina FK. 1981. [Data toward hygienic normalization of tungsten in atmospheric air.] *Gig Sanit* 46(9):79-81. (Russian)
- \*IRIS. 2005. Integrated Risk Information System. Washington, DC: U.S. Environmental Protection Agency.
- \*ITIA. 2003. The lone ranger may have used silver bullets, but the US Army plans to go green. International Tungsten Industry Association. [http://www.itia.org.uk/resources/resources\\_1.html](http://www.itia.org.uk/resources/resources_1.html). April 27, 2005.

## 9. REFERENCES

- \*Iyengar GV, Kollmer WE, Bowen HJM. 1978. The elemental composition of human tissues and body fluids: A compilation of values for adults. Weinheim, NY: Verlag Chemie.
- \*Jagielak J, Mamont-Ciesla K. 1979. Relationships among concentrations of airborne metals in industrial districts. *J Radioanal Chem* 52(2):461-470.
- Jelmert O, Hansteen I-L, Langard S. 1995. Cytogenic studies of stainless steel welders using the tungsten inert gas and metal inert gas methods for welding. *Mutat Res* 342(1/2):77-85.
- \*Jeran Z, Jacimovic R, Batic F, et al. 1996. Atmospheric heavy metal pollution in Slovenia derived from results for epiphytic lichens. *Fresenius J Anal Chem* 354(5-6):681-687.
- \*Johannesson KH, Lyons WB, Graham EY, et al. 2000. Oxyanion concentrations in eastern Sierra Nevada rivers - 3 boron, molybdenum, vanadium, and tungsten. *Aquatic Geochemistry* 6(1):19-46.
- \*Johanson CE. 1980. Permeability and vascularity of the developing brain: Cerebellum vs cerebral cortex. *Brain Res* 190:3-16.
- \*Johnson JL, Rajagopalan KV. 1974. Molecular basis for the biological function of molybdenum: Effect of tungstate on xanthine oxidase and sulfite oxidase in the rat. *J Biol Chem* 249:856-866.
- \*Johnson JL, Cohen HJ, Rajagopalan KV. 1974. Molecular basis of the biological function of molybdenum: molybdenum-free sulfite oxidase from livers of tungsten-treated rats. *J Biol Chem* 249:5046-5055.
- \*Jordan C, Whitman RD, Harbut M, et al. 1990. Memory deficits in workers suffering from hard metal disease. *Toxicol Lett* 54:241-243.
- Kaback DS, Runnels DD. 1980. Geochemistry of molybdenum in some stream sediments and waters. *Geochim Cosochim Acta* 44:447-456.
- \*Kalinich JF, Emond CA, Dalton TK, et al. 2005. Embedded weapons-grade tungsten alloy shrapnel rapidly induces metastatic high-grade rhabdomyosarcomas in F344 rats. *Environ Health Perspect*. (In Press) <http://ehp.niehs.nih.gov/members/2005/7791/7791.pdf>. April 26, 2005.
- \*Kaplun ZS, Mezentseva NV. 1959. [Hygienic evaluation of aerosols formed in the manufacture of hard alloy.] *Gig Sanit* 24:16-22. (Russian)
- Karaskova A, Lener J, Bibr B. 1985. Effect of molybdenum and tungsten on blood glucose and liver glycogen in rats. *Proceedings of Czechoslov Physiol Society*, 431.
- Karathanasis AD. 1999. Subsurface migration of copper and zinc mediated by soil colloids. *Soil Sci Soc Am J* 63:830-838.
- \*Karantassis MT. 1924. Toxicity of tungsten and molybdenum compounds. *Ann Med Leg* 5:44-50.
- Kasaka Y, Sugimoto K, Goto S, et al. 1982. Bronchopulmonary disease due to the hard metal dust - viewpoint of clinical examinations. *Jpn J Ind Health* 24(6):636-648.
- Kawabuchi K, Kuroda R. 1969. Combined ion-exchange spectrophotometric method for the determination of molybdenum and tungsten in sea water. *Anal Chim Acta* 46(1):23-30.

## 9. REFERENCES

- Kawada J, Shirakawa Y, Yoshimura Y, et al. 1982. Thyroid xanthine oxidase and its role in thyroid iodine metabolism in the rat: difference between effects of allopurinol and tungstate. *J Endocrinol* 95:117-124.
- \*Kaye SV. 1968. Distribution and retention of orally administered radiotungsten in the rat. *Health Phys* 15(5):399-417.
- Kelly ME, Fitzgerald RJ, Aulerich RJ, et al. 1998. Acute effects of lead, steel, tungsten-iron, and tungsten-polymer shot administered to game-farm mallards. *J Wildl Dis* 34(4):673-687.
- \*Kerley CR, Easterly CE, Eckerman KF, et al. 1996. Environmental acceptability of high-performance alternatives for depleted uranium penetrators. Oak Ridge, TN: Oak Ridge National Laboratory, ORNL/TM-13286.
- Kerwien SC. 1996. Toxicity of tungsten, molybdenum, and tantalum and the environmental and occupational laws associated with their manufacture, use, and disposal. Picatinny Arsenal, New Jersey: U.S. Army Armament Research, Development, and Engineering Center.
- \*Kinard FW, Aull JC. 1945. Distribution of tungsten in the rat following ingestion of tungsten compounds. *J Pharmacol Exp Ther* 83:53-55.
- \*Kinard FW, Van de Erve J. 1940. Rat mortality following sodium tungstate injection. *Am J Med Sci* 199:668-670.
- \*Kinard FW, Van de Erve J. 1941. The toxicity of orally ingested tungsten compounds in the rat. *J Pharmacol Exp Ther* 72:196-201.
- \*Kinard FW, Van de Erve J. 1943. Effects of tungsten metal diets in the rat. *J Lab Clin Med* 28:1541-1543.
- \*Kist AA. 1994. Investigation of element speciation in atmosphere. *Biol Trace Elem Res* 43-44:259-266.
- Kitamura H, Kitamura H, Tozawa T, et al. 1978. Cemented tungsten carbide pneumoconiosis. *Acta Paediatr Jpn* 28(6):921-935.
- Kitamura H, Yoshimura Y, Tozawa T, et al. 1980. Effects of cemented tungsten carbide on rat lungs following intratracheal injection of saline suspension. *Acta Paediatr Jpn* 30(2):241-254.
- Koenig JQ. 1972. A study of pulvinar-cortical interaction of acute tungstic acid-induced epilepsy in the cat. *Epilepsia* 13:445-457.
- \*Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human livers. *Biochemistry* 29:4430-4433.
- \*Konhauser KO, Powell MA, Fyfe WS, et al. 1997. Trace element chemistry of major rivers in Orissa State, India. *Environ Geol* 29(1/2):132-141.
- \*Korrey JS, Goulden PD. 1975. Determination of microgram quantities of tungsten in natural water by solvent extraction and atomic absorption spectroscopy. *Atomic Absorption Newsletter* 14(2):33-35.

## 9. REFERENCES

- Kraabel BJ, Miller MW, Getzy DM, et al. 1996. Effects of embedded tungsten-bismuth-tin shot and steel shot on mallards (*Anas platyrhynchos*). *J Wildl Dis* 32(1):1-8.
- \*Kraus T, Schramel P, Schaller KH, et al. 2001. Exposure assessment in the hard metal manufacturing industry with special regard to tungsten and its compounds. *Occup Environ Med* 58(10):631-634.
- \*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.
- \*Kruger R. 1912. [Colloidal tungsten as substitute for bismuth in rontgen sketches of the gastro-intestinal canal]. *Muench Med Wochenschr* 59:1. (German)
- Kusske JA, Wyler AR, Ward AA. 1974. Tungstic acid gel as a focal epileptogenic agent. *Exp Neurol* 42:587-592.
- Lagarde F, Leroy M. 2002. Metabolism and toxicity of tungsten in humans and animals. *Met Ions Biol Syst* 39:741-759.
- \*Lardot CG, Huaux FA, Broeckaert FR, et al. 1998. Role of urokinase in the fibrogenic response of the lung mineral particles. *Am J Respir Crit Care Med* 157:617-628.
- \*Larramendy ML, Popescu NC, DiPaolo JA. 1981. Induction by inorganic metal salts of sister chromatid exchanges and chromosome aberrations in human and Syrian hamster cell strains. *Environ Mutagen* 3:597-606.
- \*Lasfargues G, Lardot C, Delos M, et al. 1995. The delayed lung responses to single and repeated intratracheal administration of pure cobalt and hard metal powder in the rat. *Environ Res* 69:108-121.
- \*Lasfargues G, Lison D, Maldaque P, et al. 1992. Comparative study of the acute lung toxicity of pure cobalt powder and cobalt-tungsten carbide mixture in rat. *Toxicol Appl Pharmacol* 112(1):41-50.
- \*Lasfargues G, Wild P, Moulin JJ, et al. 1994. Lung cancer mortality in a French cohort of hard-metal workers. *Am J Ind Med* 26:585-595.
- \*Lassner E, Schubert WD. 1999. Tungsten. Properties, chemistry, technology of the element, alloys, and chemical compounds. New York, NY: Kluwer Academic, 82-83; 119-126; 133-177; 283-305; 353-363; 365-375.
- \*Lassner E, Austria G, Schubert W-D. 1996. Tungsten, tungsten alloys, and tungsten compounds. In: Elvers B, Hawkins S eds., *Ullmann's encyclopedia of industrial chemistry*. Weinheim, Germany: VCH, A27:229-267.
- \*Leanderson P, Sahle W. 1995. Formation of hydroxyl radicals and toxicity of tungsten oxide fibres. *Toxicol in Vitro* 9(2):175-181.

## 9. REFERENCES

- Lechleitner P, Defreffer M, Lhotta K, et al. 1993. Goodpasture's syndrome. Unusual presentation after exposure to hard metal dust. *Chest* 103:956-957.
- Lee S. 1983. Tungsten, alloys and compounds. Encyclopedia of occupational health and safety. Geneva: International Labour Office, 2:2225-2226.
- \*Leeder JS, Kearns GL. 1997. Pharmacogenetics in pediatrics: Implications for practice. *Pediatr Clin North Am* 44(1):55-77.
- \*Leggett RW. 1997. A model of the distribution and retention of tungsten in the human body. *Sci Total Environ* 206:147-165.
- \*Le Lamer S, Cros G, Serrano JJ, et al. 2001. Estimation of pharmacokinetic parameters of sodium tungstate after multiple-dose during preclinical studies in beagle dogs. *Eur J Pharm Sci* 14:323-329.
- \*Le Lamer S, Poucheret P, Cros G, et al. 2000. Pharmacokinetics of sodium tungstate in rat and dog: A population approach. *J Pharmacol Exp Ther* 294(2):714-721.
- \*Le Lamer-Déchamps S, Poucheret P, Cros G, et al. 2002. Influence of food and diabetes on pharmacokinetics of sodium tungstate in rat. *Int J Pharm* 248(1-2):131-139.
- \*Le Lamer-Déchamps S, Poucheret P, Pérez J, et al. 2003. Validation of an inductively coupled plasma-mass spectrometry method to quantify tungsten in human plasma. Determination of percentage binding to plasma proteins. *Clin Chim Acta* 327(1-2):39-46.
- \*Leung H-W. 1993. Physiologically-based pharmacokinetic modelling. In: Ballantyne B, Marro T, Turner P, eds. General and applied toxicology. Vol. 1. New York, NY: Stockton Press, 153-164.
- Levy SA. 1994. Pulmonary reactions to other occupational dusts and fumes. In: Zenz C, Dickerson OB, Horvath EP Jr., eds. Occupational medicine. St. Louis, MO: Mosby, 194-204.
- \*Lewis RJ. 1997. Hawley's condensed chemical dictionary. New York, NY: John Wiley & Sons, Inc., 354, 1147-1148.
- Li J, Elberg G, Gefel D. 1995. Permolybdate and pertungstate - potent stimulators of insulin effects in rat adipocytes: mechanism of action. *Biochemistry* 34:6218-6225.
- \*Lichtenstein ME, Bartl F, Pierce RT. 1975. Control of cobalt exposures during wet process tungsten carbide grinding. *Am Ind Hyg Assoc J* 36:879-885.
- \*Lide DR. 2000. Tungsten. In: CRC handbook of chemistry and physics. 81<sup>st</sup> ed. CRC Press LLC, Boca Raton, FL: CRC Press LLC, 3-207.
- Lison D, Lauwerys R. 1991. Biological responses of isolated macrophages to cobalt metal and tungsten carbide-cobalt powders. *Pharmacol Toxicol* 69:282-285.
- \*Lison D, Lauwerys R. 1995. The interaction of cobalt metal with different carbides and other mineral particles on mouse peritoneal macrophages. *Toxicol in Vitro* 9(3):341-347.
- \*Lison D, Buchet JP, Hoet P. 1997. Toxicity of tungsten. *Lancet* 349:58-59.

## 9. REFERENCES

- \*Lison D, Lauwers R, Demedts M, et al. 1996. Experimental research into the pathogenesis of cobalt/hard metal lung disease. *Eur Resp J* 9:1024-1028.
- \*Livingston, AL. 1978. Forage plant estrogens. *J Toxicol Environ Health* 4:301-324.
- \*Luo XM, et al. 1983. Inhibitory effects of molybdenum on esophageal and forestomach carcinogenesis in rats. *J Natl Cancer Inst* 71:75-88.
- \*Lusky LM, Braun HA, Laug EP. 1949. The effect of BAL on experimental lead, tungsten, vanadium, uranium, copper and copper-arsenic poisoning. *J Ind Hyg Toxicol* 31:301-305.
- \*Maenhaut W, Zoller WH, Duce RA, et al. 1979. Concentration and size distribution of particulate trace elements in the South Polar atmosphere. *J Geophys Res* 84:2421-2431.
- Malins DC, McCain BB, Brown DW, et al. 1984. Chemical pollutants in sediments and diseases of bottom-dwelling fish in Puget Sound, Washington. *Environ Sci Technol* 18:705-713.
- \*Mamuro T, Marsuda Y, Mizohata A, et al. 1971. Activation analysis of polluted river water. *Radioisotopes* 20(3):111-116.
- \*Marquet P, Francois B, Lotfi H, et al. 1997. Tungsten determination in biological fluids, hair and nails by plasma emission spectrometry in a case of severe acute intoxication in man. *J Forensic Sci* 42(3):527-530.
- Mason J, Mulryan G, Lamand M, et al. 1989. Behavior of [185W]thiotungstates injected into sheep and the influence of copper: their fate and the effect of the compounds upon plasma copper. *J Inorg Biochem* 35:115-126.
- \*Mayr U, Butsch A, Schneider S. 1992. Validation of two in vitro test systems for estrogenic activities with zearalenone, phytoestrogens and cereal extracts. *Toxicology* 74:135-149.
- \*Meijer A, Wroblicky G, Thuring S, et al. 1998. Environmental effects of tungsten and tantalum alloys. Elgin AFB, FL: Air Force Res Lab. AFRL-MN-EG-TR-2000-7017.
- Merle RB, Chisholm CRI, Boysen DA, et al. 2003. Instability of sulfate and selenate solid acids in fuel cell environments. *Energy Fuels* 17(1):210-215.
- \*Mezentseva NV. 1967. Tungsten. In: Izreal'son ZI, ed. Toxicology of the rare metals. (Toksiologiya redkikh metallov). Jerusalem: Isreal Program for Scientific Translations. AEC-tr 6710, 28-35.
- \*Miller AC, Page N. 1999. Mutagenicity of heavy metals used in military applications: comparison of depleted uranium, tungsten, and nickel. *Environ Mutagen* 141.
- \*Miller AC, Brooks K, Smith J, et al. 2004. Effect of the militarily-relevant heavy metals, depleted uranium and heavy metal tungsten-alloy on gene expression in human liver carcinoma cells (HepG2) *Mol Cell Biochem* 255(1-2):247-256.
- \*Miller AC, Kalinich JF, McClain DE. 2002. Carcinogenicity and immunotoxicity of embedded depleted uranium and heavy-metal tungsten alloy in rodents. Fort Detrick, Maryland: U.S. Army Medical Research and Material Command.

## 9. REFERENCES

- \*Miller AC, Mog S, McKinney L. 2001. Neoplastic transformation of human osteoblast cells to the tumorigenic phenotype by heavy metal-tungsten alloy particles: Induction of genotoxic effects. *Carcinogenesis* 22(1):115-125.
- Miller AC, Whittaker T, Xu J, et al. 2003. Transformation of human cells by tungsten in combination with nickel and cobalt metal [Abstract]. *Proceedings of the American Association for Cancer Research* 39:119.
- \*Miller CW, Davis MW, Goldman A, et al. 1953. Pneumoconiosis in the tungsten carbide tool industry. *AMA Arch Ind Hyg Occup Med* 8:453-465.
- Minoia C, Sabbioni E, Ronchi A, et al. 1994. Trace element reference values in tissues from inhabitants of the European community. IV. Influence of dietary factors. *Sci Total Environ* 141:181-195.
- Mitchell RR, Powell DM, Aulerich RJ, et al. 1999. Chronic dosing study to assess health and reproductive effects of tungsten-iron and tungsten-polymer shot on game-farm mallards. *Toxicologist* 48(1-S):45.
- Morgan WKC. 1984. Other pneumoconioses. In: Morgan WKC, Seaton A, eds. *Occupational lung diseases*. Philadelphia, PA: Saundar's Company, 449-497.
- Mori K. 1968. Changes in slow bioelectrical potentials of epileptogenic foci produced by tungstic acid gel. *Nippon Geka Hokan* 37(5):583-591.
- \*Morselli PL, Franco-Morselli R, Bossi L. 1980. Clinical pharmacokinetics in newborns and infants: Age-related differences and therapeutic implications. *Clin Pharmacokin* 5:485-527.
- Moudgil VK, Healy SP, Jacks MJ, et al. 1983. Mechanism of tungstate action: Inhibition of ATP activation of glucocorticoid receptor. *Fed Proc* 42:1260.
- \*Moulin JJ, Wild P, Romazini S, et al. 1998. Lung cancer risk in hard-metal workers. *Am J Epidemiol* 148(3):241-248.
- \*Mullen AL, Brethauer EW, Stanley RE. 1976. Absorption, distribution and milk secretion of radionuclides by the dairy cow - V. Radiotungsten. *Health Phys* 31:417-424.
- \*Mumma RO, Raupach DC, Waldman JP, et al. 1984. National survey of elements and other constituents in municipal sewage sludges. *Arch Environ Contam Toxicol* 13:75-83.
- Munoz MC, Barbera A, Dominguez J, et al. 2001. Effects of tungstate, a new potential oral antidiabetic agent, in Zucker diabetic fatty acids. *Diabetes* 50:131-138.
- Murakami N, Healy SP, Moudgil VK. 1982. Interaction of rat liver glucocorticoid receptor with sodium tungstate. *Biochem J* 204:777-786.
- Murakami N, Quattrociocchi TM, Healy SP, et al. 1982. Effects of sodium tungstate on the nuclear uptake of glucocorticoid-receptor complex from rat liver. *Arch Biochem Biophys* 214:326-334.
- \*Nadeenko VG. 1966. [Maximum permissible concentrations of tungsten in water basins.] *Hyg Sanit* 31:197-204 (Russian)

## 9. REFERENCES

- \*Nadeenko VG, Lenchenko VG. 1977. [The nature of the combined action of small doses of certain element-antagonists.] *Gig Sanit* 8:30-34. (Russian)
- \*Nadeenko VG, Lenchenko VG, Oschepkova AN, et al. 1977. [New data for standardization of tungsten and molybdenum in their separate and simultaneous presence in water bodies.] *Gig Sanit* 3:7-11. (Russian)
- \*Nadeenko VG, Lenchenko VG, Genkina SB, et al. 1978. [Effect of tungsten, molybdenum, copper and arsenic on the intrauterine development of the fetus.] *Farmakol Toksikol* 41(5):620-623. (Russian)
- \*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.
- \*Nazarov VM, Frontasyeva MV, Peresdov VF, et al. 1995. Resonance neutrons for determination of elemental content of moss, lichen and pine needles in atmospheric deposition monitoring. *J Radioanal Nucl Chem* 192(2):229-238.
- Ni B, Tian W, Nie T, et al. 1999. Study of air pollution in Beijing's major industrial areas using multielements in biomonitoring and NAA techniques. *Biol Trace Elem Res* 71-72:267-272.
- \*Nicolaou G, Pietra R, Sabbioni E, et al. 1987. Multielement determination of metals in biological specimens of hard metal workers: A study carried out by neutron activation analysis. *J Trace Elem Electrolytes Health Dis* 1:73-77.
- \*NIOSH. 1977. Occupational exposure to tungsten and cemented carbide, 21-171.
- \*NIOSH. 1983. National Occupational Exposure Survey (NOES) (CD-ROM).
- \*NIOSH. 1990. Tungsten. NIOSH pocket guide to chemical hazards. National Institute for Occupational Safety and Health. <http://www.cdc.gov>. March 13, 2000.
- \*NIOSH. 1994. NIOSH manual for analytical methods. Tungsten. National Institute for Occupational Safety and Health, 7074-7076
- \*NIOSH. 2005. NIOSH pocket guide to chemical hazards. Tungsten. Washington, DC: National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/npg.html>. April 23, 2005
- \*NRC. 1993. Pesticides in the diets of infants and children. National Research Council. Washington, DC: National Academy Press.
- Nriagu JO. 1988. A silent epidemic of environmental metal poisoning. *Environ Pollut* 50:139-161.
- \*NTP. 2003. Substance nominated to the NTP for toxicological studies and testing recommendations made by the NTP interagency committee for chemical evaluation and coordination (ICCEC) on June 20, 2003. Research Triangle Park, NC: National Toxicology Program. <http://ntp-server.niehs.nih.gov/ntpweb/printFriendly.cfm?objectid=25BEBA08-BDB7-CEBA-FC56EAD78615ADCF>. April 27, 2005.
- Odland JO, Nieboer E, Romanova N, et al. 2003. Intercommunity and temporal variation of eleven essential and five toxic elements in human placentas from deliveries in thirteen Arctic and sub-Arctic areas of Russia and Norway. *J Environ Monit* 5:166-174.

## 9. REFERENCES

- \*Ondov JM, Choquette CE, Zoller WH, et al., eds. 1989. Atmospheric behavior of trace elements on particles emitted from a coal-fired power plant. *Atmos Environ* 23(10):2193-2204.
- \*O'Neil MJ, Smith A, Heckelman PE, et al. 2001. In: *The Merck index. An encyclopedia of chemicals, drugs, and biologicals*. Whitehouse Station, NJ: Merck Research Laboratories, 1748.
- \*OSHA. 2005a. Occupational safety and health standards for shipyard employment. Air contaminants. Washington, DC: Occupational Safety and Health Administration. Code of Federal Regulations 29 CFR 1915.1000.
- \*OSHA. 2005b. Safety and health regulations for construction. Gases, vapors, fumes, dusts, and mists. Washington, DC: Occupational Safety and Health Administration. Code of Federal Regulations 29 CFR 1926.55, Appendix A.
- \*OTA. 1990. Neurotoxicity: Identifying and controlling poisons of the nervous system. Washington, DC: Office of Technology Assessment. OTA-BA-438.
- Ott G, Mikuz G. 1982. [Hard metal pulmonary fibrosis.] *Dtsch Med Wochenschr* 107(37):1396-1399. (German)
- \*Owen EC, Proudfoot R. 1968. The effect of tungstate ingestion on xanthine oxidase in milk and liver. *Br J Nutr* 22:331-340.
- \*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.
- Pan YW, Yang MT, Yang SP. 1986. Effect of molybdenum and tungsten supplementation on copper-enzymes of female rats fed AIN-76A or lab chow. *Fed Proc* 45:356.
- Pang D, Fu SC, Yang GC. 1992. Relation between exposure to respirable silica dust and silicosis in a tungsten mine in China. *Br J Ind Med* 49:38-40.
- \*Parker GA, Boltz DF. 1968. Ultraviolet spectrophotometric determination of tungsten as peroxytungstic acid. *Anal Lett* 1(11):679-686.
- \*Paschal DC, Ting BG, Morrow JC, et al. 1998. Trace metals in urine of United States residents: Reference range concentrations. *Environ Res* A76:53-59.
- Pawa S, Ali S. 2004. Liver necrosis and fulminant hepatic failure in rats: Protection by oxyanionic form of tungsten. *Biochim Biophys Acta* 1688(3):210-222.
- \*Peão MND, Águas AP, De Sa CM, et al. 1993. Inflammatory response of the lung to tungsten particles: An experimental study in mice submitted to intratracheal instillation of a calcium tungstate powder. *Lung* 171:187-201.
- \*Penrice TW. 1997a. Tungsten. In: *Kirk-Othmer encyclopedia of chemical technology*. New York, NY: John Wiley & Sons, 572-588.
- \*Penrice TW. 1997b. Tungsten. In: *Kirk-Othmer encyclopedia of chemical technology*. New York, NY: John Wiley & Sons, 590.

## 9. REFERENCES

- \*Perez-Jordan MY, Soldevila J, Salvador A, et al. 1998. Inductively coupled plasma mass spectrometry analysis of wines. *J Anal Atom Spectrom* 14(1):33-39.
- \*Peuster M, Fink C, von Schnakenburg C. 2003a. Biocompatibility of corroding tungsten coils: In vitro assessment of degradation kinetics and cytotoxicity on human cells. *Biomaterials* 24(22):4057-4061.
- Peuster M, Fink C, Wohlsein P, et al. 2003b. Degradation of tungsten coils implanted into the subclavian artery of New Zealand white rabbits is not associated with local or systemic toxicity. *Biomaterials* 24(3):393-399.
- \*Piatak NM, Seal RR, Hammarstrom JM. 2004. Mineralogical and geochemical controls on the release of trace elements from slag produced by base- and precious-metal smelting at abandoned mine sites. *Appl Geochem* 19(7):1039-1064.
- \*Pires M, Fielder H, Teiceira EC. 1997. Geochemical distribution of trace elements in coal: Modeling and environmental aspects. *Fuel* 76(14/15):1425-1437.
- Potter GD, Vattuone GM, McIntyre DR. 1971. Fate of fallout ingested by livestock. Part I. Dairy cows. United States Government Res Dev Rep, 1-15. UCRL-72636.
- \*Poucheret P, Le Lamer S, Cros G, et al. 2000. Tungsten determination in rat and dog plasma samples by inductively coupled plasma emission spectrometry application to preclinical pharmacokinetic studies. *Anal Chim Acta* 405:221-226.
- \*Quin BF, Brooks RR. 1972a. The rapid determination of tungsten in soils, stream sediments, rocks and vegetation. *Anal Chim Acta* 58:301-309.
- \*Quin BF, Brooks RR. 1972b. Tungsten content of some plants from a mineralized area in New Zealand. *N Z J Sci* 15:308-312.
- \*Reimann C, Bjorvatn K, Frengstad B, et al. 2003. Drinking water quality in the Ethiopian section of the East African Rift Valley I - data and health aspects. *Sci Total Environ* 311(1-3):65-80.
- \*Rengasamy A, Kommineni C, Jones JA, et al. 1999. Effects of hard metal on nitric oxide pathways and airway reactivity to methacholine in rat lungs. *Toxicol Appl Pharmacol* 157:178-191.
- Ringleman JK, Miller MW, Andelt WF. 1993. Effects of ingested tungsten-bismuth-tin shot on captive mallards. *J Wildl Manage* 57(4):725-732.
- \*Rizzato G, Cicero SL, Barberis M, et al. 1986. Trace of metal exposure in hard metal lung disease. *Chest* 90(1):101-106.
- Rochat T, Kaelin RM, Batawi A, et al. 1987. Rapidly progressive interstitial lung disease in a hard metal coating worker undergoing hemodialysis. *Eur J Respir Dis* 71:46-51.
- Rodriguez-Gallardo J, Silvestre A, Egido EM, et al. 2000. Effects of sodium tungstate on insulin and glucagon secretion in the perfused rat pancreas. *Eur J Pharmacol* 402:199-204.
- \*Rodushkin I, Odman F, Holmstrom H. 1999. Multi-element analysis of wild berries from northern Sweden by ICP techniques. *Sci Total Environ* 231:53-65.

## 9. REFERENCES

Roser B, Ford WL. 1972. Prolonged lymphocytopenia in the rat. The immunological consequences of lymphocyte depletion following injection of 185W tungsten trioxide into the spleen or lymph nodes. *Aust J Exp Biol Med Sci* 50:185-198.

\*Rossman TG, Molina M, Meyer LW. 1984. The genetic toxicology of metal compounds. I. Induction of  $\lambda$  prophage in *E coli* WP2s. *Environ Mutagen* 6:59-69.

\*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.

\*RTECS. 2004. Tungsten. Registry of Toxic Effects of Chemical Substances. National Institute for Occupational Safety and Health. June, 2004.

Ruettner JR, Spycher MA, Stolkin I. 1987. Inorganic particulates in pneumoconitic lungs of hard metal grinders. *Br J Ind Med* 44(10):657-660.

Rystedt I, Fischer T, Lagerholm B. 1983. Patch testing with sodium tungstate. *Contact Dermatitis* 9(1):69-73.

Sabbioni E, Minoia C, Pietra R, et al. 1994. Metal determinations in biological specimens of diseased and non-diseased hard metal workers. *Sci Total Environ* 150:41-54.

\*Sadiq M, Mian AA, Althagafi KM. 1992. Inter-city comparison of metals in scalp hair collected after the Gulf War 1991. *J Environ Sci Health Part A* 27(6):1415-1431.

\*Sahle W. 1992. Possible role of tungsten oxide whiskers in hard-metal pneumoconiosis. *Chest* 102:1310.

\*Sahle W, Krantz S, Christensson B, et al. 1996. Preliminary data on hard metal workers exposed to tungsten oxide fibers. *Sci Total Environ* 191(1-2):153-167.

\*Sahle W, Laszlo I, Krantz S, et al. 1994. Airborne tungsten oxide whiskers in a hard-metal industry. Preliminary findings. *Ann Occup Hyg* 38(1):37-44.

Satoh-Kamachi A, Munakata M, Kusaka Y, et al. 1998. A case of sarcoidosis that developed three years after the onset of hard metal asthma. *Am Ind Hyg Assoc J* 33:379-383.

\*Schepers GHW. 1955a. The biological action of particulate tungsten metal. *Arch Ind Health* 12:134-136.

\*Schepers GHW. 1955b. Biological action of tungsten carbide and carbon. Experimental pulmonary histopathology. *AMA Arch Ind Health* 12:137-139.

\*Schramel P, Wendler I, Angerer J. 1997. The determination of metals (antimony, bismuth, lead, cadmium, mercury, palladium, platinum, tellurium, thallium, tin and tungsten) in urine samples by inductively coupled plasma-mass spectrometry. *Int Arch Occup Environ Health* 69:219-223.

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

## 9. REFERENCES

- \*Schroeder HA, Mitchener M. 1975b. Life-term effects of mercury, methyl mercury, and nine other trace metals on mice. *J Nutr* 105:452-458.
- \*Schwartz L, Peck SM, Blair KE, et al. 1945. Allergic dermatitis due to metallic cobalt. *J Allerg* 16:51.
- \*Schwarz Y, Kivity S, Fischbein A, et al. 1998. Evaluation of workers exposed to dust containing hard metals and aluminum oxide. *Am J Ind Med* 34:177-182.
- Senesi GS, Baldassarre G, Senesi N, et al. 1999. Trace element inputs into soils by anthropogenic activities and implications for human health. *Chemosphere* 39(2):343-377.
- \*Senesi N, Padovano G, Brunetti G. 1988. Scandium, titanium, tungsten and zirconium content in commercial inorganic fertilizers and their contribution to soil. *Environ Technol Lett* 9(9):1011-1020.
- \*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.
- Shears GE, Neal EJ, Ledward DA. 1989. Effects of dietary iron deficiency and tungsten supplementation on 59Fe absorption and gastric retention from 59Fe compounds in rats. *Br J Nutr* 61:573-581.
- Sheppard D, Hughson WG, Shellito J. 1990. Occupational lung disease. *Occup Med* 15:221-236.
- \*Sheridan PJ, Zoller WH. 1989. Elemental composition of particulate material sampled from the Arctic haze aerosol. *J Atmos Chem* 9:363-381.
- Shiller AM, Boyle EA. 1987. Dissolved vanadium in rivers and estuaries. *Earth Planet Sci Lett* 86:214-224.
- \*Singh I. 1983. Induction of reverse mutation and mitotic gene conversion by some metal compounds in *Saccharomyces cerevisiae*. *Mutat Res* 117:149-152.
- \*Sivjakov KI, Braun HA. 1959. The treatment of acute selenium, cadmium, and tungsten intoxication in rats with calcium disodium ethylenediaminetetraacetate. *Toxicol Appl Pharmacol* 1:602-608.
- \*Skog E. 1963. Skin affections caused by hard metal dust. *Ind Med Surg* 32:266-268.
- Sluis-Cremer GK, Thomas RG, Solomon A. 1987. Hard-metal lung disease. A report of 4 cases. *S Afr Med J* 71:598-600.
- \*Smyth HF, Carpenter C, Weil C, et al. 1969. Range-finding toxicity data: List VII. *Am Ind Hyg Assoc J* 30:470-476.
- Sobaszek A, Edme JL, Shirali P, et al. 1998. Respiratory symptoms and pulmonary function among stainless steel welders. *J Occup Environ Med* 40(3):223-229.
- \*Sora S, Carbone MLA, Pacciarini M, et al. 1986. Disomic and diploid meiotic products induced in *Saccharomyces cerevisiae* by the salts of 27 elements. *Mutagenesis* 1(1):21-28.
- Springe NL. 1992. Hard metal disease. In: Rom WN, ed. *Environmental and occupational medicine*. Boston, Massachusetts: Brown and Company, 791-798.

## 9. REFERENCES

- Sprince NL, Chamberlin RI, Hales CA, et al. 1984. Respiratory disease in tungsten carbide production workers. *Chest* 86(4):549-557.
- Sprince NL, Oliver LC, Eisen EA, et al. 1988. Cobalt exposure and lung disease in tungsten carbide production. *Am Rev Respir Dis* 138:1220-1226.
- Stepan J, Friedrich E. 1961. Detection of tungsten in the kidneys of a suicide and some findings in animals after tungsten administration. *Dtsch Z Gesamte Gerichtl Med* 51:7-11.
- Studenikova ZV, Pavlenko LI. 1960. Contents of tungsten and molybdenum in alkaline rocks of the east Turva and the northern Caucasus. *Geochemistry* 1960(7):709-717.
- Svartengren M, Elinder C-G. 1994. Tungsten and its compounds. In: Zenz C, Dickerson OB, Horvath EP Jr., eds. *Occupational medicine*. St. Louis, MO, 582-583.
- Tajima Y. 2003. Tungstophosphate induced thromboembolic complications *in vivo*. *Biomed Res* 24(1):39-49.
- \*Tanizaki Y, Shimokawa T, Yamazaki M. 1992a. Physico-chemical speciation of trace elements in urban streams by size fractionation. *Water Res* 26(1):55-63.
- \*Tanizaki Y, Shimokawa T, Nakamura M. 1992b. Physicochemical speciation of trace elements in river waters by size fractionation. *Environ Sci Technol* 26(7):1433-1444.
- \*Taylor HE, Garbarino JR, Brinton TI. 1990. The occurrence and distribution of trace metals in the Mississippi River and its tributaries. *Sci Total Environ* 97-98:369-384.
- Terada LS, Willingham IR, Guidot DM, et al. 1992. Tungsten treatment prevents tumor necrosis factor-induced injury of brain endothelial cells. *Inflammation* 16(1):13-17.
- Testai E, DeCurtis V, Gemma S, et al. 1996. The role of different cytochrome P450 isoforms in *in vitro* metabolism. *J Biochem Toxicol* 11:305-312.
- Thoni L, Schnyder N, Krieg F. 1996. Comparison of metal concentrations in three species of mosses and metal freights in bulk precipitations. *Fresenius J Anal Chem* 354:703-708.
- \*Tomiyasu T, Yonehara N. 1996. Spectrophotometric determination of trace amounts of tungsten(VI) based on its inhibitory effect for the red intermediate formation of the iron (II) catalyzed chloropromazine-hydrogen peroxide reaction. *Anal Sci* 12(6):899-903.
- \*Tong SSC, et al. 1974. Trace metals in Lake Cayuga lake trout (*Salvelinus namaycush*) in relation to age. *J Fish Res Board Can* 31:238-239.
- Tozawa T, Kitamura H, Koshi K, et al. 1981. Experimental pneumoconiosis induced by cemented tungsten and sequential concentrations of cobalt and tungsten in the lungs of the rat. *Jpn J Ind Health* 23(3):216-226.
- Tuschl H, Weber E, Kovac R. 1997. Investigations on immune parameters in welders. *J Appl Toxicol* 17(6):377-383.

## 9. REFERENCES

Uitti RJ, Rajput AH, Rozdilsky B, et al. 1989. Regional metal concentrations in Parkinson's disease, other chronic neurological diseases, and control brains. *Can J Neurol Sci* 16:310-314.

\*Ulitzur S, Barak M. 1988. Detection of genotoxicity of metallic compounds by the bacterial bioluminescence test. *J Biolumin Chemilumin* 2:95-99.

\*U.S. Army. 2000. Elimination of toxic heavy metals from small caliber ammunition. SERPD Final Report (Project PP/1057/78). Picatinny, NJ: U.S. Army Armament Research, Development, and Engineering Center.

U.S. Army Medical Research and Material Command. 2002. Carcinogenicity and immunotoxicity of embedded depleted uranium and heavy-metal tungsten alloy in rodents. Fort Detrick, MD: U.S. Army Medical Research and Material Command. ADA409697. [unpublished study]

\*USGS. 1999. Tungsten 1998. U.S. Geological Survey.

<http://minerals.usgs.gov/minerals/pubs/commodity/tungsten/680498.pdf>. April 26, 2005.

\*USGS. 2001. Tungsten. U.S. Geological Survey, Mineral Commodity Summaries.

<http://minerals.usgs.gov/minerals/pubs/commodity/tungsten>. April 27, 2005.

\*USGS. 2002. Recycling-metals. United States Geological Survey, 62.13.

<http://minerals.usgs.gov/minerals/pubs/commodity/recycle/recycmyb02r.pdf>. December 28, 2004.

\*USGS. 2003a. Tungsten. Minerals yearbook.

<http://minerals.usgs.gov/minerals/pubs/commodity/tungsten/tungsmyb03.pdf>. December 28, 2004.

USGS. 2003b. Tungsten. U.S. Geological Survey, Mineral Commodity Summaries.

<http://minerals.usgs.gov/minerals/pubs/commodity/tungsten>. December 28, 2004.

\*USGS. 2004a. Tungsten statistics. In: Kelly T, Buckingham D, DiFrancesco C, et al., eds. Historical statistics for mineral and material commodities in the United States. United States Geological Survey. U.S. Geological Survey Open-File Report 01-006. <http://minerals.usgs.gov/minerals/pubs/of01-006/tungsten.pdf>. December 28, 2004.

\*USGS. 2004b. Tungsten. Mineral commodity summary 2004, 180-181.

<http://minerals.usgs.gov/minerals/pubs/commodity/tungsten/tungsmcs04.pdf>. December 28, 2004.

\*USGS. 2005. USGS national geochemical survey database. U.S. Department of the Interior. U.S. Geological Survey. <http://www-tin.er.usgs.gov/geochem/method.php?element=W>. April 27, 2005.

\*USNRC. 2005. Standards for protection against radiation. Annual limits on intake (ALIs) and derived air concentrations (DACs) of radionuclides for occupational exposure; effluent concentrations; concentrations for release to sewage. Washington, DC: U.S. Nuclear Regulatory Commission. Code of Federal Regulations 10 CFR 20, Appendix B.

Van der Sloot HA, Hoede D, Wijkstra JC, et al. 1985. Anionic species of V, As, Se, Mo, Sb, Te and W in the Scheldt and Rhine estuaries and the Southern Bight (North Sea). *East Coast Shelf Sci* 21:633-651.

\*Van der Sloot HA, Wals GD, Das HA. 1977. The determination of molybdenum and tungsten in sea and surface water. *Anal Chim Acta* 90(1):193-200.

## 9. REFERENCES

- \*Van Goethem F, Lison D, Kirsch-Volders M. 1997. Comparative evaluation of the in vitro micronucleus test and the alkaline single cell gel electrophoresis assay for the detection of DNA damaging agents: genotoxic effects of cobalt powder, tungsten carbide and cobalt-tungsten carbide. *Mutat Res* 392:31-43.
- \*Vengerskaya KY, Salikhodzhaev SS. 1962. Some problems relating to the effects of tungsten powder on humans. *Gig Tr Prof Zabol* 6:27-29.
- \*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* 238:476-483.
- Vinogradov AP, Vainshtein EE, Pvalenko LI. 1958. Tungsten and molybdenum in igneous rocks (as related to the geochemistry of tungsten). *Geochemistry* 5:497-509.
- Voronov VP. 1983. [Hygenic assessment of tungsten as an air pollutant.] *Gig Sanit* 48(7):71-72. (Russian)
- Wang T, Ge Z, Wu J, et al. 1999. Determination of tungsten in bulk drug substance and intermediates by ICP-AES and ICP-MS. *J Pharm Biomed Anal* 19:937-943.
- \*Wase AW. 1955. Absorption and distribution of radio-tungstate in bone and soft tissues. *Arch Biochem Biophys* 61:272-277.
- \*Wei H, Luo X, Yang X. 1987. Effect of molybdenum and tungsten on mammary carcinogenesis in Sprague-Dawley SD rats. *Zhonghua Zhong Liu Za Zhi* 9(3):204-207.
- Wesselius LJ, Smirnov IM, Nelson ME, et al. 1996. Alveolar macrophages accumulate iron and ferritin after in vivo exposure to iron or tungsten dusts. *J Lab Clin Med* 127(4):401-409.
- \*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.
- Wester PO. 1973. Trace elements in serum and urine from hyper-sensitive patients before and during treatment with chlorthalidone. *Acta Med Scand* 194:505-512.
- \*Wester PO. 1974. Trace elements in relation to variations in calcium intake. *Atherosclerosis* 20:207-215.
- \*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.
- \*Wide M. 1984. Effect of short-term exposure to five industrial metals on the embryonic and fetal development of the mouse. *Environ Res* 33:47-53.
- \*Wide M, Danielsson BRG, Dencker L. 1986. Distribution of tungstate in pregnant mice and effect in embryonic cells *in vitro*. *Environ Res* 40:487-498.
- \*Wild P, Perdrix A, Romazini S, et al. 2000. Lung cancer mortality in a site producing hard metals. *Occup Environ Med* 57:568-573.

## 9. REFERENCES

- Wilkenfeld M. 1992. Metal compounds and rare earths. In: Rom WN, ed. Environmental and occupational medicine. Boston, Mass: Little, Brown and Company, 815-830.
- Xu B, Chia S-E, Ong C-N. 1994. Concentrations of cadmium, lead, selenium, and zinc in human blood and seminal plasma. *Biol Trace Elem Res* 40:49-57.
- Yim WW-S. 1976. Heavy metal accumulation in estuarine sediments in a historical mining of Cornwall. *Mar Pollut Bull* 7(8):147-150.
- \*Zanetti G, Fubini B. 1997. Surface interaction between metallic cobalt and tungsten carbide particles as a primary cause of hard metal lung disease. *J Mater Chem* 7(8):1647-1654.
- \*Zelikoff JT, Atkins N, Rossman TG. 1986. Mutagenicity of soluble metal salts using the V79/HGPRT mutation assay. *Environ Mutagen* 8:95.
- Zellner G, Winter J. 1987. Growth promoting effect of tungsten on methanogens and incorporation of tungsten-185 into cells. *FEMS Microbiol Lett* 40:81-87.
- \*Zhang F-S, Yamasaki S, Kimura K. 2002. Waste ashes for use in agricultural production. II. Contents of minor and trace metals. *Sci Total Environ* 286(1-3):111-118.
- \*Ziegler EE, Edwards BB, Jensen RL, et al. 1978. Absorption and retention of lead by infants. *Pediatr Res* 12:29-34.
- \*Zinabu GM, Pearce NJG. 2003. Concentrations of heavy metals and related trace elements in some Ethiopian rift-valley lakes and their in-flows. *Hydrobiologia* 429:171-178.
- Zober A, Weltle D. 1985. Cross-sectional study of respiratory effects of arc welding. *J Soc Occup Med* 35:79-84.