

10. REFERENCES

- Ashworth, RA; Howe, GB; Mullins, ME; Rogers, TN. (1988) Air-water partitioning coefficients of organics in dilute aqueous solutions. *J Haz Mat* 18:25-36.
- Bernhardt, G; Hess, CT. (1995) Acute exposure from radon-222 and aerosols in drinking water. Written communication. Unpublished master's thesis. University of Maine.
- Box, GEP; Bisgaard, S. (1988) Statistical tools for improving designs. *Mech Eng* 110:32-40.
- Corsi, RL; Howard, C; Strader, R. (1996) Volatilization rates from water to indoor air: phase I report. Project report submitted to U.S. Environmental Protection Agency.
- Danckwerts, PV. (1951) Significance of liquid film coefficients in gas absorption. *Ind Eng Chem* 43(6):1460-1467.
- Dobbins, WE. (1956) Mechanism of gas absorption by turbulent liquids. In: *Advances in water pollution research* 2. Eckenfelder, WW, ed. New York: Pergamon Press, Ltd., pp. 61-96.
- Enviromega. (1993) Collection system organic release algorithm: user's manual. p. 13.
- Gesell, TF; Prichard, HM. (1980) The contribution of radon in tap water to indoor radon concentrations. In: *Natural radiation environment III, Vol. 2*. Houston: Technical Information Center, U.S. Department of Energy, pp. 1347-1363.
- Giardino, NJ; Andelman, JB. (1991) Poster paper presented at Annual Conference of the American Water Works Association, Philadelphia, PA.
- Giardino, NJ; Andelman, JB. (1996) Characterization of the emissions of trichloroethylene, chloroform, and 1,2-dibromo-3-chloropropane in a full-size, experimental shower. *J Exposure Anal Environ Epidemiol* 6(4):413-423.
- Giardino, NJ; Hageman, JP. (1996) Pilot study of radon volatilization from showers with implications for dose. *Environ Sci Technol* 30(4):1242-1244.
- Giardino, NJ; Andelman, JB; Borrazzo, JE; Davidson, CI. (1988) Sulfur hexafluoride as a surrogate for volatilization of organics from indoor water uses. *J Air Pollut Control Assoc* 38(3):278-280.

- Giardino, NJ; Esmen, NA; Andelman, JB. (1992) Modeling volatilization of trichloroethylene from a domestic shower spray: the role of drop-size distribution. *Environ Sci Technol* 26:1602-1606.
- Hess, CT, Weiffenbach, CV; Norton, SA. (1982) Variations of airborne and waterborne Rn-222 in houses in Maine. *Environ Int* 8:59-66.
- Higbie, R. (1935) The rate of exposure of a pure gas into a still liquid during short periods of exposure. *Trans Am Inst Chem Eng* 31:365-388.
- Hodgson, AT; Garbesi, K; Sextro, RG; Daisey, JM. (1988) Evaluation of soil-gas transport of organic chemicals into residential buildings: final report. Lawrence Berkeley Laboratory Report, contract no. DE-AC03-76SF00098.
- Hopke, PK; Raunemaa, T; Datye, V; Kuuspallo, K; Jensen, B. (1995) Assessment of exposure to radon and its decay products from showering in radon-laden water. In: *Indoor air: an integrated approach*. Morawska, L; Bofinger, ND; Maroni, N, eds. Oxford: Elsevier Science Ltd., pp. 107-110.
- Howard, CL. (1998) Volatilization rates of chemicals from drinking water to indoor air. Ph.D. dissertation, The University of Texas at Austin.
- Howard, PH, ed. (1989) *Handbook of environmental fate and exposure data for organic chemicals (vol. I)*. Boca Raton, FL: CRC Press, Inc.
- Howard, PH, ed. (1990) *Handbook of environmental fate and exposure data for organic chemicals (vol. II)*. Chelsea, MI: Lewis Publishers.
- Howard-Reed, C; Corsi, RL; Moya, J. (1999) Mass transfer of volatile organic compounds from drinking water to indoor air: the role of residential dishwashers. *Environ Sci Technol* 33:2266-2272.
- Howard, C; Corsi, RL. (1996) Volatilization of chemicals from drinking water to indoor air: role of the kitchen sink. *J Air Waste Manage Assoc* 46:830-837.
- Howard, C; Corsi, RL. (1998) Volatilization of chemicals from drinking water to indoor air: the role of residential washing machines. *J Air Waste Manage Assoc* 48:907.
- Hsieh, CC; Ro, KS; Stenstrom, MK. (1991) Estimating stripping rates and gas/liquid mass transfer coefficients of semi-volatile organic compounds in surface aeration. *Proceedings of the 64th annual WPCF conference*; Toronto, Ontario.

- Hsieh, CC; Babcock, RW, Jr.; Stenstrom, MK. (1994) Estimating semi-volatile organic compound emission rates and oxygen transfer coefficients in diffused aeration. *Water Environ Res* 66(3):206-210.
- Jo, WK; Weisel, CP; Liroy, PJ. (1990) Routes of chloroform exposure and body burden from showering with chlorinated tap water. *Risk Anal* 10(4):575-580.
- Keating, GA; McKone, TE. (1993) Measurements and evaluation of the water-to-air transfer and air concentration for trichloroethylene in a shower chamber. In: *Modeling of indoor air quality and exposure*, ASTM STP 1205. Nagda, NL, ed. Philadelphia: American Society of Testing and Materials, pp. 14-24.
- Keating, GA; McKone, TE; Gillet, JW. (1997) Measured and estimated air concentrations of chloroform in showers: effects of water temperature and aerosols. *Atmos Environ* 31(2):123-130.
- Lewis, WK; Whitman, WG. (1924) *Ind Eng Chem* 16:1215-1220.
- Lide, DR, ed. (1995) *CRC handbook of chemistry and physics* (76th ed.) Boca Raton, FL: CRC Press.
- Little, JC. (1992) Applying the two-resistance theory to contaminant volatilization in showers. *Environ Sci Technol* 26(7):1341-1349.
- Mackay, D; Shiu, WY; Sutherland, RP. (1979). Determination of air-water Henry's law constants for hydrophobic pollutants. *Environ Sci Technol* 13(9):333-337.
- Matter-Muller, C; Gujer, W; Giger, W. (1981) Transfer of volatile substances from water to the atmosphere. *Water Res* 15:1271-1279.
- McKone, TE. (1987) Human exposure to volatile organic compounds in household tap water: the inhalation pathway. *Environ Sci Technol* 21:1194-1201.
- McKone, TE; Knezovich, JP. (1991) The transfer of trichloroethylene (TCE) from a shower to indoor air: experimental measurements and their implications. *J Air Waste Manage Assoc* 41:832-837.
- Moya, J; Howard-Reed, C; Corsi, RL. (1999) Volatilization of chemicals from tap water to indoor air from contaminated water used for showering. *Environ Sci Technol* 33:2321-2327.

- Munz, C; Roberts, PV. (1989) Gas- and liquid-phase mass transfer resistances of organic compounds during mechanical surface aeration. *Water Res* 23(5):589-601.
- Partridge, JE; Horton, TR; Sensintaffer, EL. (1979) A study of ²²²Rn released from water during typical household activities. Office of Radiation Programs, Eastern Environmental Radiation Facility, Technical Note ORP/EERF-79-1. Montgomery, AL: U.S. EPA.
- Roberts, PV; Dandliker, P; Matter-Muller, C. (1984) Volatilization of organic pollutants in wastewater treatment model studies (EPA/600/2-84-047). Cincinnati: U.S. Environmental Protection Agency.
- Schoene, K; Steinhanses, J. (1985) Determination of Henry's law constant by automated head space-gas chromatography. *Fresenius Z Anal Chem* 321:538-543.
- Shepherd, J; Kemp, J; Corsi, RL. (1996) Chloroform in indoor air and wastewater: the role of residential washing machines. *J Air Waste Manage Assoc* 46(7):631-642.
- Smith, JH; Bomberger, DC, Jr; Haynes, DL. (1980) Prediction of the volatilization rates of high-volatility chemicals from natural water bodies. *Environ Sci Technol* 14(11):1332-1337.
- Tancrede, MV; Yanagisawa, Y; Wilson, R. (1992) Volatilization of volatile organic compounds from showers. I: analytical method and quantitative assessment. *Atmos Environ* 26A(6):1103-1111.
- Tucker, WA; Nelken, LH. (1990) Diffusion coefficients in air and water. In: *Handbook of chemical property estimation methods*. Lyman, WH; Reehl, WF; Rosenblatt, DH, eds. Washington, DC: American Chemical Society, pp. 17-1-17-25.
- Wooley, J; Nazaroff, WW; Hodgson, AT. (1990) Release of ethanol to the atmosphere during use of consumer cleaning products. *J Air Waste Manage Assoc* 40:1114-1120.