

CHAPTER 8. REFERENCES

- Abbassi R, Chamkhia N, Sakly M. 2010. Chloroform-induced oxidative stress in rat liver: Implication of metallothionein. *Toxicol Indust Health* 26(8):487-496. <https://doi.org/10.1177/0748233710373088>.
- Abraham MH, Ibrahim A. 2006. Air to fat and blood to fat distribution of volatile organic compounds and drugs: linear free energy analyses. *Eur J Med Chem* 41(12):1430-1438. <https://doi.org/10.1016/j.ejmech.2006.07.012>.
- Abraham MH, Ibrahim A, Acree WE. 2005. Air to blood distribution of volatile organic compounds: a linear free energy analysis. *Chem Res Toxicol* 18(5):904-911. <https://doi.org/10.1021/tx050066d>.
- Abraham MH, Ibrahim A, Acree WE. 2006. Air to brain, blood to brain and plasma to brain distribution of volatile organic compounds: linear free energy analyses. *Eur J Med Chem* 41(4):494-502. <https://doi.org/10.1016/j.ejmech.2006.01.004>.
- Ade P, Guastadisegni C, Testai E, et al. 1994. Multiple activation of chloroform in kidney microsome from male and female DBA/2J mice. *J Biochem Toxicol* 9(6):289-295.
- Aelion CM, Conte BC. 2004. Susceptibility of residential wells to VOC and nitrate contamination. *Environ Sci Technol* 38(6):1648-1653. <https://doi.org/10.1021/es030401p>.
- Aggazzotti G, Fantuzzi G, Righi E, et al. 1993. Chloroform in alveolar air of individuals attending indoor swimming pools. *Arch Environ Health* 48(4):250-254.
- Aggazzotti G, Fantuzzi G, Righi E, et al. 1995. Environmental and biological monitoring of chloroform in indoor swimming pools. *J Chromatogr* 710(1):181-190. [https://doi.org/10.1016/0021-9673\(95\)00432-m](https://doi.org/10.1016/0021-9673(95)00432-m).
- Aggazzotti G, Fantuzzi G, Righi E, et al. 1998. Blood and breath analyses as biological indicators of exposure to trihalomethanes in indoor swimming pools. *Sci Total Environ* 217(1-2):155-163. [https://doi.org/10.1016/s0048-9697\(98\)00174-0](https://doi.org/10.1016/s0048-9697(98)00174-0).
- Ago M, Hayashi T, Ago K, et al. 2011. Two fatalities associated with chloroform inhalation. Variation of toxicological and pathological findings. *Leg Med* 13(3):156-160. <https://doi.org/10.1016/j.legalmed.2011.01.002>.
- Ahmadpour E, Halle S, Valois I, et al. 2022. Temporal and spatial variations in the levels of prominent airborne disinfection by-products at four indoor swimming pools. *J Occup Environ Hyg* 19(4):185-196. <https://doi.org/10.1080/15459624.2022.2035741>.
- Ahmed AE, Kubic VL, Anders MW. 1977. Metabolism of haloforms to carbon monoxide. I. In vitro studies. *Drug Metab Dispos* 5:198-204.
- Ahn J, Rao G, Mamun M, et al. 2020. Soil-air partitioning of volatile organic compounds into soils with high water content. *Environ Chem* 17(8):545-557. <https://doi.org/10.1071/en20032>.
- Aiking H, van Acker MB, Scholten RJPM, et al. 1994. Swimming pool chlorination: A health hazard? *Toxicol Lett* 72(1-3):375-380. [https://doi.org/10.1016/0378-4274\(94\)90051-5](https://doi.org/10.1016/0378-4274(94)90051-5).
- Allan AR, Blackmore RC, Toseland PA. 1988. A chloroform inhalation fatality-an unusual asphyxiation. *Med Sci Law* 28(2):120-122. <https://doi.org/10.1177/002580248802800207>.
- Allen BC, Covington TR, Clewell HJ. 1996. Investigation of the impact of pharmacokinetic variability and uncertainty on risks predicted with a pharmacokinetic model for chloroform. *Toxicology* 111(1-3):289-303. [https://doi.org/10.1016/0300-483x\(96\)03383-5](https://doi.org/10.1016/0300-483x(96)03383-5).
- Ammann P, Laethem CL, Kedderis GL. 1998. Chloroform-induced cytolethality in freshly isolated male B6C3F1 mouse and F-344 rat hepatocytes. *Toxicol Appl Pharmacol* 149(2):217-225. <https://doi.org/10.1006/taap.1997.8351>.
- Anand SS, Mehendale HM. 2004. Liver regeneration: a critical toxicodynamic response in predictive toxicology. *Environ Toxicol Chem* 18(2):149-160. <https://doi.org/10.1016/j.etap.2004.02.011>.
- Anand SS, Murthy SN, Vaidya VS, et al. 2003. Tissue repair plays pivotal role in final outcome of liver injury following chloroform and allyl alcohol binary mixture. *Food Chem Toxicol* 41(8):1123-1132. [https://doi.org/10.1016/s0278-6915\(03\)00066-8](https://doi.org/10.1016/s0278-6915(03)00066-8).

8. REFERENCES

- Anand SS, Murthy SN, Mumtaz MM, et al. 2004. Dose-dependent liver tissue repair in chloroform plus thioacetamide acute hepatotoxicity. *Environ Toxicol Chem* 18(2):143-148. <https://doi.org/10.1016/j.etap.2004.02.010>.
- Anand SS, Mumtaz MM, Mehendale HM. 2005a. Dose-dependent liver tissue repair after chloroform plus trichloroethylene binary mixture. *Basic Clin Pharmacol Toxicol* 96(6):436-444. https://doi.org/10.1111/j.1742-7843.2005.pto_06.x.
- Anand SS, Mumtaz MM, Mehendale HM. 2005b. Dose-dependent liver regeneration in chloroform, trichloroethylene and allyl alcohol ternary mixture hepatotoxicity in rats. *Arch Toxicol* 79(11):671-682. <https://doi.org/10.1007/s00204-005-0675-3>.
- Anand SS, Philip BK, Palkar PS, et al. 2006. Adaptive tolerance in mice upon subchronic exposure to chloroform: Increased exhalation and target tissue regeneration. *Toxicol Appl Pharmacol* 213(3):267-281. <https://doi.org/10.1016/j.taap.2006.02.007>.
- Andelman JB. 1985a. Human exposures to volatile halogenated organic chemicals in indoor and outdoor air. *Environ Health Perspect* 62:313-318.
- Andelman JB. 1985b. Inhalation exposure in the home to volatile organic contaminants of drinking water. *Sci Total Environ* 47:443-460.
- Anders MW, Stevens JL, Sprague RW, et al. 1978. Metabolism of haloforms to carbon monoxide. II. In vivo studies. *Drug Metab Dispos* 6:556-560.
- 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, NY: Marcel Dekker, Inc., 9-25.
- Andersen ME, Clewell HJ, Gargas ML, et al. 1987. Physiologically based pharmacokinetics and the risk assessment process for methylene chloride. *Toxicol Appl Pharmacol* 87:185-205.
- Anderson TA, Beauchamp JJ, Walton BT. 1991. Fate of volatile and semivolatile organic chemicals in soils: Abiotic versus biotic losses. *J Environ Qual* 20(2):420-424.
- Antoine SR, DeLeon IR, O'Dell-Smith RM. 1986. Environmentally significant volatile organic pollutants in human blood. *Bull Environ Contam Toxicol* 36:364-371.
- Araki A, Kamigaito N, Sasaki T, et al. 2004. Mutagenicity of carbon tetrachloride and chloroform in *Salmonella typhimurium* TA98, TA100, TA1535, and TA1537, and *Escherichia coli* WP2uvrA/pKM101 and WP2/pKM101, using a gas exposure method. *Environ Mol Mutagen* 43(2):128-133. <https://doi.org/10.1002/em.20005>.
- Aranyi C, O'Shea WJ, Graham JA, et al. 1986. The effects of inhalation of organic chemical air contaminants on murine lung host defenses. *Fundam Appl Toxicol* 6(4):713-720. [https://doi.org/10.1016/0272-0590\(86\)90184-3](https://doi.org/10.1016/0272-0590(86)90184-3).
- ATSDR. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles. Agency for Toxic Substances and Disease Registry. *Fed Reg* 54(173):37618-37634. https://archives.federalregister.gov/issue_slice/1989/9/11/37613-37634.pdf#page=6. February 21, 2023.
- ATSDR. 2016. Evaluating vapor intrusion pathways: Guidance for ATSDR's Division of Community Health Investigations. Agency for Toxic Substances and Disease Registry. <https://stacks.cdc.gov/view/cdc/79266>. April 17, 2024.
- ATSDR. 2022a. Toxicological profile for 1,1-dichloroethene. Agency for Toxic Substances and Disease Registry. <https://www.atsdr.cdc.gov/ToxProfiles/tp39.pdf>. May 4, 2023.
- ATSDR. 2022b. Sanders2015 HLCs used in SHOWER Model v3 and PHAST. Atlanta, GA: Agency for Toxic Substances and Disease Registry. https://www.atsdr.cdc.gov/pha-guidance/toolbox/ATSDR_SHOWER_Model_v3_0_0.zip. May 15, 2023.
- ATSDR. 2022c. Chloroform. Full SPL data. Substance priority list (SPL) resource page. Agency for Toxic Substances and Disease Registry. <https://www.atsdr.cdc.gov/SPL/resources/index.html>. June 21, 2023.

8. REFERENCES

- Auttachoat W, Germolec DR, Collins BJ, et al. 2009. Immunotoxicological profile of chloroform in female B6C3F1 mice when administered in drinking water. *Drug Chem Toxicol* 32(1):77-87. <https://doi.org/10.1080/01480540802433880>.
- AWWA Disinfection Committee. 2021. Emerging trends in disinfection: Lessons from AWWA's Disinfection Survey. *J Am Water Works Assoc* 113(1):20-28. <https://doi.org/10.1002/awwa.1648>.
- Aylward LL, Kirman CR, Blount BC, et al. 2010. Chemical-specific screening criteria for interpretation of biomonitoring data for volatile organic compounds (VOCs)-application of steady-state PBPK model solutions. *Regul Toxicol Pharmacol* 58(1):33-44. <https://doi.org/10.1016/j.yrtph.2010.05.011>.
- Baeder C, Hofmann T. 1988. Initial submission: Inhalation embryotoxicity study of chloroform in Wistar rats with cover letter dated 072492. Dow Chemical Company. Submitted to the U.S. Environmental Protection Agency under TSCA section 8E. OTS0544564. 88-920005781. 8EHQ-0792-7135. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/OTS0544564.xhtml>. February 21, 2023.
- Baines CJ, McKeown-Eyssen GE, Riley N, et al. 2004. Case-control study of multiple chemical sensitivity, comparing haematology, biochemistry, vitamins and serum volatile organic compound measures. *Occup Med* 54(6):408-418. <https://doi.org/10.1093/occmed/kqh083>.
- Balster RL, Borzelleca JF. 1982. Behavioral toxicity of trihalomethane contaminants of drinking water in mice. *Environ Health Perspect* 46:127-136. <https://doi.org/10.1289/ehp.8246127>.
- Ban M, Langonné I, Huguet N, et al. 2006. Inhaled chemicals may enhance allergic airway inflammation in ovalbumin-sensitized mice. *Toxicology* 226(2-3):161-171. <https://doi.org/10.1016/j.tox.2006.06.012>.
- Barkley J, Bunch J, Bursey JT, et al. 1980. Gas chromatography mass spectrometry computer analysis of volatile halogenated hydrocarbons in man and his environment. A multimedia environmental study. *Biomed Mass Spectrom* 7:130-147.
- Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessment. *Regul Toxicol Pharmacol* 8:471-486.
- Barnes D, Fitzgerald PA, Swan HB. 1989. Catalysed formation of chlorinated organic materials in waters. *Water Sci Technol* 21(2):59-63.
- Barrows ME, Petrocelli SR, Macek KJ, et al. 1980. Bioconcentration and elimination of selected water pollutants by bluegill sunfish (*Lepomis macrochirus*). In: Haque R, ed. Dynamics, exposure and hazard assessment of toxic chemicals. Ann Arbor, MI: Ann Arbor Science, 379-392.
- Basak S, Mills D, El-Masri HA, et al. 2004. Predicting blood:air partition coefficients using theoretical molecular descriptors. *Environ Toxicol Pharmacol* 16(1-2):45-55. <https://doi.org/10.1016/j.etap.2003.09.002>.
- Batterman S, Zhang L, Wang S, et al. 2002. Partition coefficients for the trihalomethanes among blood, urine, water, milk and air. *Sci Total Environ* 284(1-3):237-247. [https://doi.org/10.1016/s0048-9697\(01\)00890-7](https://doi.org/10.1016/s0048-9697(01)00890-7).
- Bayer CW, Black MS, Galloway LM. 1988. Sampling and analysis techniques for trace volatile organic emissions from consumer products. *J Chromatogr Sci* 26(4):168-173.
- Bean RM, Thomas BL, Neitzel DA. 1985. Analysis of sediment matter for halogenated products from chlorination of power plant cooling water. In: Proceedings of the 5th water chlorination conference. Chelsea, MI: Lewis Publishers, Inc., 1357-1370.
- Béliveau M, Krishnan K. 2000a. Estimation of rat blood:air partition coefficients of volatile organic chemicals using reconstituted mixtures of blood components. *Toxicol Lett* 116(3):183-188. [https://doi.org/10.1016/s0378-4274\(00\)00219-8](https://doi.org/10.1016/s0378-4274(00)00219-8).
- Béliveau M, Krishnan K. 2000b. Concentration dependency of rat blood: air partition coefficients of some volatile organic chemicals. *J Toxicol Environ Health* 60(6):377-389. <https://doi.org/10.1080/00984100050033467>.

8. REFERENCES

- Béliveau M, Charest-Tardif G, Krishnan K. 2001. Blood:air partition coefficients of individual and mixtures of trihalomethanes. *Chemosphere* 44(3):377-381. [https://doi.org/10.1016/s0045-6535\(00\)00203-4](https://doi.org/10.1016/s0045-6535(00)00203-4).
- Benoit FM, Jackson R. 1987. Trihalomethane formation in whirlpool spas. *Water Res* 21(3):353-357.
- Berger D, Vischer TL, Micheli A. 1983. Induction of proteolytic activity in serum by treatment with amniotic detergents and organic solvents. *Experientia* 39:1109-1111.
- Berry MR, Johnson LS, Brenner KP, et al. 1997. Dietary characterizations in a study of human exposures in the Lower Rio Grande Valley: Part II. Household waters. *Environ Int* 23(5):693-703. [https://doi.org/10.1016/S0160-4120\(97\)00070-6](https://doi.org/10.1016/S0160-4120(97)00070-6).
- Bexfield LM, Belitz K, Fram MS, et al. 2022a. Volatile organic compounds in groundwater used for public supply across the United States: Occurrence, explanatory factors, and human-health context. *Sci Total Environ* 827:154313. <https://doi.org/10.1016/j.scitotenv.2022.154313>.
- Bexfield LM, Belitz K, Fram MS, et al. 2022b. Supplemental material: Volatile organic compounds in groundwater used for public supply across the United States: Occurrence, explanatory factors, and human-health context. *Sci Total Environ* 827 <https://doi.org/10.1016/j.scitotenv.2022.154313>.
- Bogen KT, Keating GA. 2000. Dermal absorption from short-term exposure to contaminated water. *IAHS Publication* 260:101-110.
- Bomski H, Sobolewaka A, Strakowski A. 1967. [Toxic damage of the liver by chloroform in chemical industry workers]. *Int Arch Arbeitsmed* 24(2):127-134. <https://doi.org/10.1007/BF00369015>. (German)
- Bonou SG, Levallois P, Giguere Y, et al. 2017. Prenatal exposure to drinking-water chlorination by-products, cytochrome P450 gene polymorphisms and small-for-gestational-age neonates. *Reprod Toxicol* 73:75-86. <https://doi.org/10.1016/j.reprotox.2017.07.019>.
- Boobis AR. 2009. Mode of action considerations in the quantitative assessment of tumour responses in the liver. *Basic Clin Pharmacol Toxicol* 106(3):173-179. <https://doi.org/10.1111/j.1742-7843.2009.00505.x>.
- Borgert CJ, Wise K, Becker RA. 2015. Modernizing problem formulation for risk assessment necessitates articulation of mode of action. *Regul Toxicol Pharmacol* 72(3):538-551. <https://doi.org/10.1016/j.yrtph.2015.04.018>.
- Botton J, Kogevinas M, Gracia-Lavedan E, et al. 2015. Postnatal weight growth and trihalomethane exposure during pregnancy. *Environ Res* 136:280-288. <https://doi.org/10.1016/j.envres.2014.09.035>.
- Boublik T, Fried V, Hala E. 1984. Trichloromethane. In: *The vapor pressures of pure substances: Selected values of the temperature dependence of the vapor pressures of some pure substances in the normal and low-pressure region*. Vol. 17. Amsterdam, Netherlands: Elsevier Scientific Publications, 34-35.
- Bouwer EJ, McCarty PL. 1983. Transformations of 1- and 2-carbon halogenated aliphatic organic compounds under methanogenic conditions. *Appl Environ Microbiol* 45(4):1286-1294. <https://doi.org/10.1128/aem.45.4.1286-1294.1983>.
- Bouwer EJ, Rittman B, McCarty PL. 1981a. Anaerobic degradation of halogenated 1- and 2-carbon organic compounds. *Environ Sci Technol* 15(5):596-599. <https://doi.org/10.1021/es00087a012>.
- Bouwer EJ, McCarty PL, Lance JC. 1981b. Trace organic behavior in soil columns during rapid infiltration of secondary wastewater. *Water Res* 15:151-159.
- Bowman FJ, Borzelleca JF, Munson AE. 1978. The toxicity of some halomethanes in mice. *Toxicol Appl Pharmacol* 44(1):213-215. [https://doi.org/10.1016/0041-008X\(78\)90300-9](https://doi.org/10.1016/0041-008X(78)90300-9).
- Branchflower RV, Nunn DS, Highet RJ, et al. 1984. Nephrotoxicity of chloroform: Metabolism to phosgene by the mouse kidney. *Toxicol Appl Pharmacol* 72:159-168.
- Breider F, Albers CN, Hunkeler D. 2013. Assessing the role of trichloroacetyl-containing compounds in the natural formation of chloroform using stable carbon isotopes analysis. *Chemosphere* 90(2):441-448. <https://doi.org/10.1016/j.chemosphere.2012.07.058>.

8. REFERENCES

- Brennan RJ, Schiestl RH. 1998. Chloroform and carbon tetrachloride induce intrachromosomal recombination and oxidative free radicals in *Saccharomyces cerevisiae*. *Mutat Res* 397(2):271-278. [https://doi.org/10.1016/s0027-5107\(97\)00225-x](https://doi.org/10.1016/s0027-5107(97)00225-x).
- Brill MJ, Diepstraten J, van Rongen A, et al. 2012. Impact of obesity on drug metabolism and elimination in adults and children. *Clin Pharmacokinet* 51(5):277-304. <https://doi.org/10.2165/11599410-000000000-00000>.
- Brown BR, Sipes IG, Sagalyn AM. 1974a. Mechanisms of acute hepatic toxicity: chloroform, halothane, and glutathione. *Anesthesiology* 41(6):554-561. <https://doi.org/10.1097/00000542-197412000-00005>.
- Brown DM, Langley PF, Smith D, et al. 1974b. Metabolism of chloroform. I. The metabolism of ¹⁴C-chloroform by different species. *Xenobiotica* 4:151-163.
- Bruchard W, Bajracharya A, Johnston NAC. 2023. Volatile organic compound emissions from disinfectant usage in the home and office. *Environ Health Perspect* 131(4):47701. <https://doi.org/10.1289/EHP11916>.
- Bull RJ, Brown JM, Meierhenry EA, et al. 1986. Enhancement of the hepatotoxicity of chloroform in B6C3F1 mice by corn oil: Implications for chloroform carcinogenesis. *Environ Health Perspect* 69:49-58. <https://doi.org/10.1289/ehp.866949>.
- Bunge AL, Cleek RL, Vecchia BE. 1995. A new method for estimating dermal absorption from chemical exposure. 3. Compared with steady-state methods for prediction and data analysis. *Pharm Res* 12(7):972-982. <https://doi.org/10.1023/a:1016298012408>.
- Burk T, Zarus G. 2013. Community exposures to chemicals through vapor intrusion: a review of past Agency for Toxic Substances and Disease Registry public health evaluations. *J Environ Health* 75(9):36-41.
- Burke AS, Redeker K, Kurten RC, et al. 2007. Mechanisms of chloroform-induced hepatotoxicity: oxidative stress and mitochondrial permeability transition in freshly isolated mouse hepatocytes. *J Toxicol Environ Health* 70(22):1936-1945. <https://doi.org/10.1080/15287390701551399>.
- Burkhalter JE, Balster RL. 1979. Behavioral teratology evaluation of trichloromethane in mice. *Neurobehav Toxicol* 1(3):199-205.
- Butler TC. 1961. Reduction of carbon tetrachloride in vivo and reduction of carbon tetrachloride and chloroform in vitro by tissues and tissue constituents. *J Pharmacol Exp Ther* 134:311-319.
- Butterworth BE, Templin MV, Constan AA, et al. 1998. Long-term mutagenicity studies with chloroform and dimethylnitrosamine in female lacI transgenic B6C3F1 mice. *Environ Mol Mutagen* 31(3):248-256. [https://doi.org/10.1002/\(sici\)1098-2280\(1998\)31:3<248::aid-em6>3.0.co;2-g](https://doi.org/10.1002/(sici)1098-2280(1998)31:3<248::aid-em6>3.0.co;2-g).
- Byard RW, Kostakis C, Pigou PE, et al. 2000. Volatile substance use in sexual asphyxia. *J Clin Forensic Med* 7(1):26-28. <https://doi.org/10.1054/jcfm.2000.0356>.
- Cai Z, Mehendale HM. 1991. Hepatotoxicity and lethality of halomethanes in Mongolian gerbils pretreated with chlordecone, phenobarbital or mirex. *Arch Toxicol* 65(3):204-212. <https://doi.org/10.1007/BF02307310>.
- Caldwell KK, Harris RA. 1985. Effects of anesthetic and anticonvulsant drugs on calcium-dependent efflux of potassium from human erythrocytes. *Eur J Pharmacol* 107:119-125.
- Callahan CL, Stewart PA, Friesen MC, et al. 2018. Case-control investigation of occupational exposure to chlorinated solvents and non-Hodgkin's lymphoma. *Occup Environ Med* 75(6):415-420. <https://doi.org/10.1136/oemed-2017-104890>.
- Callen DF, Wolf CR, Philpot RM. 1980. Cytochrome p-450 mediated genetic activity and cytotoxicity of seven halogenated aliphatic hydrocarbons in *Saccharomyces cerevisiae*. *Mutat Res* 77:55-63.
- Cammann K, Hübner K. 1995. Trihalomethane concentrations in swimmers' and bath attendants' blood and urine after swimming or working in indoor swimming pools. *Arch Environ Health* 50(1):61-65.
- Cantor KP, Hoover R, Mason TJ, et al. 1978. Associations of cancer mortality with halomethanes in drinking water. *J Natl Cancer Inst* 61(4):979-985. <https://doi.org/10.1093/jnci/61.4.979>.

8. REFERENCES

- Cao XL, Sparling M, Dabeka R. 2024. Chloroform in food samples from 2014 Canadian total diet study: occurrence and dietary exposure. *Food Addit Contam Part A Chem Anal Control Expo Risk Assess* 41(2):143-150. <https://doi.org/10.1080/19440049.2024.2302098>.
- Cao WC, Zeng Q, Luo Y, et al. 2016. Blood biomarkers of late pregnancy exposure to trihalomethanes in drinking water and fetal growth measures and gestational age in a Chinese cohort. *Environ Health Perspect* 124(4):536-541. <https://doi.org/10.1289/ehp.1409234>.
- Carla V, Moroni F. 1992. General anaesthetics inhibit the responses induced by glutamate receptor agonists in the mouse cortex. *Neurosci Lett* 146(1):21-24.
- Caro J, Gallego M. 2008. Alveolar air and urine analyses as biomarkers of exposure to trihalomethanes in an indoor swimming pool. *Environ Sci Technol* 42(13):5002-5007. <https://doi.org/10.1021/es800415p>.
- Carrasco-Turigas G, Villanueva CM, Goni F, et al. 2013. The effect of different boiling and filtering devices on the concentration of disinfection by-products in tap water. *J Environ Public Health* 2013:959480. <https://doi.org/10.1155/2013/959480>.
- CDC. 2022a. Blood trichloromethane (chloroform) (2011-2018). National report on human exposure to environmental chemicals. Centers for Disease Control and Prevention. https://www.cdc.gov/exposurereport/data_tables.html January 26, 2023.
- CDC. 2022b. Blood trichloromethane (chloroform) in smokers (2013-2016); Blood trichloromethane (chloroform) in non-smokers (2013-2016). National report on human exposure to environmental chemicals. Centers for Disease Control and Prevention. https://www.cdc.gov/exposurereport/data_tables.html. January 26, 2023.
- Chaidou CI, Georgakilas VI, Stalikas C, et al. 1999. Formation of chloroform by aqueous chlorination of organic compounds. *Chemosphere* 39(4):587-594. [https://doi.org/10.1016/s0045-6535\(99\)00124-1](https://doi.org/10.1016/s0045-6535(99)00124-1).
- Challen PJR, Hickish DE, Bedford J. 1958. Chronic chloroform intoxication. *Br J Ind Med* 15(4):243-249. <https://doi.org/10.1136/oem.15.4.243>.
- Chen YJ, Duan P, Meng TQ, et al. 2020. Associations of blood trihalomethanes with semen quality among 1199 healthy Chinese men screened as potential sperm donors. *Environ Int* 134:105335. <https://doi.org/10.1016/j.envint.2019.105335>.
- Chen Y, Qian Y, An D, et al. 2024. Potential disinfection byproducts-related risks to drinking water? Molecular insights into the dissolved organic matter from photodegradation of polyethylene microplastics. *ACS EST Water* 4(1):217-226. <https://doi.org/10.1021/acsestwater.3c00549>.
- Chenoweth MB, Robertson DN, Erley DS, et al. 1962. Blood and tissue levels of ether, chloroform, halothane and methoxyflurane in dogs. *Anesthesiology* 23:101-106.
- Chinery RL, Gleason AK. 1993. A compartmental model for the prediction of breath concentration and absorbed dose of chloroform after exposure while showering. *Risk Anal* 13(1):51-62.
- Chiou WL. 1975. Quantitation of hepatic and pulmonary first-pass effect and its implications in pharmacokinetic study. I. Pharmacokinetics of chloroform in man. *J Pharmacokinet Biopharm* 3:193-201.
- Choi SH, Lee SW, Hong YS, et al. 2006. Diagnostic radiopacity and hepatotoxicity following chloroform ingestion: a case report. *Emerg Med J* 23(5):394-395. <https://doi.org/10.1136/emj.2005.027466>.
- Christensen KY, Vizcaya D, Richardson H, et al. 2013. Risk of selected cancers due to occupational exposure to chlorinated solvents in a case-control study in Montreal. *J Occup Environ Med* 55(2):198-208. <https://doi.org/10.1097/JOM.0b013e3182728eab>.
- Chu I, Villeneuve DC, Secours VE, et al. 1982a. Trihalomethanes: II. Reversibility of toxicological changes produced by chloroform, bromodichloromethane, chlorodibromomethane and bromoform in rats. *J Environ Sci Health B* 17(3):225-240. <https://doi.org/10.1080/03601238209372315>.
- Chu I, Villeneuve DC, Secours VE, et al. 1982b. Toxicity of trihalomethanes: I. The acute and subacute toxicity of chloroform, bromodichloromethane, chlorodibromomethane and bromoform in rats. *J Environ Sci Health B* 17(3):205-224. <https://doi.org/10.1080/03601238209372314>.

8. REFERENCES

- Cianflone DJ, Hewitt WR, Villeneuve DC, et al. 1980. Role of biotransformation in the alterations of chloroform hepatotoxicity produced by Kepone and mirex. *Toxicol Appl Pharmacol* 53:140-149.
- Clark CS, Meyer CR, Gartside PS, et al. 1982. An environmental health survey of drinking water contamination by leachate from a pesticide waste dump in Hardemena County, Tennessee. *Arch Environ Health* 37:9-18.
- Class T, Ballschmidter K. 1986. Chemistry of organic traces in air. VI. Distribution of chlorinated Cl-C4-hydrocarbons in air over the northern and southern Atlantic Ocean. *Chemosphere* 15(4):413-427.
- Clewell HJ. 1995. The application of physiologically based pharmacokinetic modeling in human health risk assessment of hazardous substances. *Toxicol Lett* 79(1-3):207-217. [https://doi.org/10.1016/0378-4274\(95\)03372-r](https://doi.org/10.1016/0378-4274(95)03372-r).
- Clewell HJ, Tan YM, Campbell JL, et al. 2008. Quantitative interpretation of human biomonitoring data. *Toxicol Appl Pharmacol* 231(1):122-133. <https://doi.org/10.1016/j.taap.2008.04.021>.
- Coffin JC, Ge R, Yang S, et al. 2000. Effect of trihalomethanes on cell proliferation and DNA methylation in female B6C3F1 mouse liver. *Toxicol Sci* 58(2):243-252. <https://doi.org/10.1093/toxsci/58.2.243>.
- Cohen EN, Hood N. 1969. Application of low-temperature autoradiography to studies of the uptake and metabolism of volatile anesthetics in the mouse. *Anesthesiology* 30:306-314.
- Colman J, Rice GE, Wright JM, et al. 2011. Identification of developmentally toxic drinking water disinfection byproducts and evaluation of data relevant to mode of action. *Toxicol Appl Pharmacol* 254(2):100-126. <https://doi.org/10.1016/j.taap.2011.02.002>.
- Comba ME, Palabrica VS, Kaiser KLE. 1994. Volatile halocarbons as tracers of pulp mill effluent plumes. *Environ Toxicol Chem* 13(7):1065-1074.
- Conolly RB, Butterworth BE. 1995. Biologically based dose response model for hepatic toxicity: a mechanistically based replacement for traditional estimates of noncancer risk. *Toxicol Lett* 82-83:901-906. [https://doi.org/10.1016/0378-4274\(95\)03528-1](https://doi.org/10.1016/0378-4274(95)03528-1).
- Constan AA, Sprankle CS, Peters JM, et al. 1999. Metabolism of chloroform by cytochrome P450 2E1 is required for induction of toxicity in the liver, kidney, and nose of male mice. *Toxicol Appl Pharmacol* 160(2):120-126. <https://doi.org/10.1006/taap.1999.8756>.
- Corley RA, Mendrala AL, Smith FA, et al. 1990. Development of a physiologically based pharmacokinetic model for chloroform. *Toxicol Appl Pharmacol* 103:512-527.
- Corley RA, Gordon SM, Wallace LA. 2000. Physiologically based pharmacokinetic modeling of the temperature-dependent dermal absorption of chloroform by humans following bath water exposures. *Toxicol Sci* 53(1):13-23. <https://doi.org/10.1093/toxsci/53.1.13>.
- Corsi RL, Chang DPY, Schroeder ED, et al. 1987. Modeling the emissions of volatile and potentially toxic organic compounds from municipal wastewater treatment plants. In: *Proceedings of the 80th annual meeting of the Air Pollution Control Association, June 21-26, 1987 New York, New York*. New York: Air Pollution Control Association, 87-95a.85.
- Costet N, Garlantezec R, Monfort C, et al. 2011. Environmental and urinary markers of prenatal exposure to drinking water disinfection by-products, fetal growth, and duration of gestation in the PELAGIE birth cohort (Brittany, France, 2002-2006). *Am J Epidemiol* 175(4):263-275. <https://doi.org/10.1093/aje/kwr419>.
- Crebelli R, Benigni R, Franekic J, et al. 1988. Induction of chromosome malsegregation by halogenated organic solvents in *Aspergillus nidulans*: Unspecified or specified mechanism? *Mutat Res* 201:401-411.
- Crebelli R, Andreoli C, Carere A, et al. 1995. Toxicology of halogenated aliphatic hydrocarbons: structural and molecular determinants for the disturbance of chromosome segregation and the induction of lipid peroxidation. *Chem Biol Interact* 98(2):113-129. [https://doi.org/10.1016/0009-2797\(95\)03639-3](https://doi.org/10.1016/0009-2797(95)03639-3).
- Crume RV, Ryan WM, Peters TA, et al. 1990. Risk analysis on air from groundwater aeration. *J Water Poll Control Fed* 62:119-123.

8. REFERENCES

- Cui SQ, Tao YM, Jian TZ, et al. 2022. An incident of chloroform poisoning on a university campus. *World J Emerg Med* 13(2):155-157. <https://doi.org/10.5847/wjem.j.1920-8642.2022.028>.
- Culliford D, Hewitt HB. 1957. The influence of sex hormone status on the susceptibility of mice to chloroform-induced necrosis of the renal tubules. *J Endocrinol* 14:381-393.
- da Silva ML, Charest-Tardif G, Krishnan K, et al. 1999. Influence of oral administration of a quaternary mixture of trihalomethanes on their blood kinetics in the rat. *Toxicol Lett* 106(1):49-57. [https://doi.org/10.1016/s0378-4274\(99\)00022-3](https://doi.org/10.1016/s0378-4274(99)00022-3).
- da Silva ML, Charest-Tardif G, Krishnan K, et al. 2000. Evaluation of the pharmacokinetic interactions between orally administered trihalomethanes in the rat. *J Toxicol Environ Health* 60(5):343-353. <https://doi.org/10.1080/00984100050030127>.
- Daft JA. 1988. Rapid determination of fumigant and industrial chemical residues in food. *J Assoc Off Anal Chem* 71:748-760.
- Daft JA. 1989. Determination of fumigants and related chemicals in fatty and non-fatty foods. *J Agric Food Chem* 37:560-564.
- Danielsson BRG, Ghantous H, Dencker L. 1986. Distribution of chloroform and methyl chloroform and their metabolites in pregnant mice. *Biol Res Pregnancy* 7:77-83.
- Davis ME. 1992. Dichloroacetic acid and trichloroacetic acid increase chloroform toxicity. *J Toxicol Environ Health* 37(1):139-148.
- Davis ME, Bemdt WO. 1992. Sex differences in monochloroacetate pretreatment effects on chloroform toxicity in rats. *Fundam Appl Toxicol* 18(1):66-71.
- Davison MH. 1959. The evolution of anaesthesia. *Br J Anaesth* 30(10):495-504. <https://doi.org/10.1093/bja/30.10.495>.
- de Best JH, Salminen E, Doddema HJ, et al. 1998. Transformation of carbon tetrachloride under sulfate reducing conditions. *Biodegradation* 8(6):429-436. <https://doi.org/10.1023/a:1008262225760>.
- de Castro Medeiros L, de Alencar FLS, Navoni JA, et al. 2019. Toxicological aspects of trihalomethanes: a systematic review. *Environ Sci Pollut Res Int* 26(6):5316-5332. <https://doi.org/10.1007/s11356-018-3949-z>.
- de Groot H, Noll T. 1989. Halomethane hepatotoxicity: induction of lipid peroxidation and inactivation of cytochrome P-450 in rat liver microsomes under low oxygen partial pressures. *Toxicol Appl Pharmacol* 97(3):530-537. [https://doi.org/10.1016/0041-008x\(89\)90258-5](https://doi.org/10.1016/0041-008x(89)90258-5).
- de Oliveira TH, Campos KK, Soares NP, et al. 2015. Influence of sexual dimorphism on pulmonary inflammatory response in adult mice exposed to chloroform. *Int J Toxicol* 34(3):250-257. <https://doi.org/10.1177/1091581815580172>.
- De Serres FJ, Hoffmann GR, von Borstel J, et al. 1981. Summary report on the performance of yeast assays. *Prog Mutat Res* 1:67-76.
- DeAngelo AB, Geter DR, Rosenberg DW, et al. 2002. The induction of aberrant crypt foci (ACF) in the colons of rats by trihalomethanes administered in the drinking water. *Cancer Lett* 187(1-2):25-31. [https://doi.org/10.1016/s0304-3835\(02\)00356-7](https://doi.org/10.1016/s0304-3835(02)00356-7).
- DeJongh J, Verhaar HJ, Hermens JL. 1997. A quantitative property-property relationship (QPPR) approach to estimate in vitro tissue-blood partition coefficients of organic chemicals in rats and humans. *Arch Toxicol* 72(1):17-25. <https://doi.org/10.1007/s002040050463>.
- Delic JI, Lilly PD, MacDonald AJ, et al. 2000. The utility of PBPK in the safety assessment of chloroform and carbon tetrachloride. *Regul Toxicol Pharmacol* 32(2):144-155. <https://doi.org/10.1006/rtph.2000.1419>.
- Dell'Aglio DM, Sutter ME, Schwartz MD, et al. 2010. Acute chloroform ingestion successfully treated with intravenously administered N-acetylcysteine. *J Med Toxicol* 6(2):143-146. <https://doi.org/10.1007/s13181-010-0071-0>.
- Deml E, Oesterle D. 1985. Dose-dependent promoting activity of chloroform in rat liver foci bioassay. *Cancer Lett* 29:59-63.
- Deringer MK, Dunn TB, Heston WE. 1953. Results of exposure of strain C3H mice to chloroform. *Proc Soc Exp Biol Med* 83(3):474-479. <https://doi.org/10.3181/00379727-83-20389>.

8. REFERENCES

- Derricott CE, Knight EA, Acree WE, et al. 2015. Using water-solvent systems to estimate in vivo blood-tissue partition coefficients. *Chem Cent J* 9:58. <https://doi.org/10.1186/s13065-015-0134-z>.
- Deshon HD. 1979. Carbon tetrachloride. In: Grayson M, Eckroth D, eds. *Kirk-Othmer encyclopedia of chemical technology*. Vol. 5. 3rd ed. New York, NY: John Wiley and Sons, 693-703.
- Dettling A, Stadler K, Eisenbach C, et al. 2016. Systemic inflammatory response due to chloroform intoxication-an uncommon complication. *Int J Legal Med* 130(2):401-404. <https://doi.org/10.1007/s00414-015-1156-8>.
- Dewalle FB, Chian ESK. 1981. Detection of trace organics in well water near a solid waste landfill. *J Am Water Works Assoc* 73:206-211.
- DHA. 2022. Real-time neurobehavioral effects of single and combined chemical exposures via inhalation in rats. Defense Health Agency, Research and Development Directorate (J-9) Restoral Program. AD1156482. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/AD1156482.xhtml>. May 8, 2024.
- Dick D, Ng KM, Sauder DN, et al. 1995. In vitro and in vivo percutaneous absorption of 14C-chloroform in humans. *Hum Exp Toxicol* 14(3):260-265. <https://doi.org/10.1177/096032719501400305>.
- Dilling W. 1977. Interphase transfer processes. II. Evaporation rates of chloromethanes, ethanes, ethylenes, propanes, and propylenes from dilute aqueous solution. Comparisons with theoretical predictions. *Environ Sci Technol* 11:405-409.
- Dilling WL, Tefertiller NB, Kallos GJ. 1975. Evaporation rates of methylene chloride, chloroform, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene, and other chlorinated compounds in dilute aqueous solutions. *Environ Sci Technol* 9(9):833-838.
- Dimitriades B, Joshi SB. 1977. Application of reactivity criteria in oxidant-related emission control in the USA. In: International conference on photochemical oxidant pollution and its control. Research Triangle Park, NC: U.S. Environmental Protection Agency. 705-712. EPA600377001B. PB264233. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB264233.xhtml>. February 21, 2023.
- Dix KJ, Kedderis GL, Borghoff SJ. 1997. Vehicle-dependent oral absorption and target tissue dosimetry of chloroform in male rats and female mice. *Toxicol Lett* 91(3):197-209. [https://doi.org/10.1016/s0378-4274\(97\)00023-4](https://doi.org/10.1016/s0378-4274(97)00023-4).
- Do MT, Birkett NJ, Johnson KC, et al. 2005. Chlorination disinfection by-products and pancreatic cancer risk. *Environ Health Perspect* 113(4):418-424. <https://doi.org/10.1289/ehp.7403>.
- Docks EL, Krishna G. 1976. The role of glutathione in chloroform-induced hepatotoxicity. *Exp Mol Pathol* 24:13-22.
- Dodds L, King WD. 2001. Relation between trihalomethane compounds and birth defects. *Occup Environ Med* 58(7):443-446. <https://doi.org/10.1136/oem.58.7.443>.
- DOE. 2018a. Table 3: Protective action criteria (PAC) rev. 29a based on applicable 60-minute AEGs, ERPGs, or TEELs. The chemicals are listed by CASRN. June 2018. U.S. Department of Energy. https://edms3.energy.gov/pac/docs/Revision_29A_Table3.pdf. July 6, 2022.
- DOE. 2018b. Protective action criteria (PAC) with AEGs, ERPGs, & TEELs: Rev. 29A, June 2018. U.S. Department of Energy. <https://edms3.energy.gov/pac/>. July 6, 2022.
- Donat-Vargas C, Kogevinas M, Castano-Vinyals G, et al. 2023. Long-term exposure to nitrate and trihalomethanes in drinking water and prostate cancer: A multicase-control study in Spain (MCC-Spain). *Environ Health Perspect* 131(3):37004. <https://doi.org/10.1289/EHP11391>.
- Donat-Vargas C, Kogevinas M, Benavente Y, et al. 2024. Lifetime exposure to brominated trihalomethanes in drinking water and swimming pool attendance are associated with chronic lymphocytic leukemia: a Multicase-Control Study in Spain (MCC-Spain). *J Expo Sci Environ Epidemiol* 34(1):47-57. <https://doi.org/10.1038/s41370-023-00600-7>.
- Doring HJ. 1975. Reversible and irreversible forms of contractile failure caused by disturbances by general anesthetics in myocardial ATP utilization. In: Fleckenstein A, Dhalla NS, eds. *Recent*

8. REFERENCES

- advances in studies on cardiac structure and metabolism: Basic functions of cations in myocardial activity. Vol. 5. Baltimore, MD: University Park Press, 395-403.
- Dorman DC, Miller KL, D'Antonio A, et al. 1997. Chloroform-induced olfactory mucosal degeneration and osseous ethmoid hyperplasia are not associated with olfactory deficits in Fischer 344 rats. *Toxicology* 122(1-2):39-50. [https://doi.org/10.1016/s0300-483x\(97\)00076-0](https://doi.org/10.1016/s0300-483x(97)00076-0).
- DOT. 1980. Chemical kinetic and photochemical data sheets for atmospheric reactions. Washington, DC: U.S. Department of Transportation. ADA091631. <https://apps.dtic.mil/sti/pdfs/ADA091631.pdf>. February 21, 2023.
- Doyle TJ, Zheng W, Cerhan JR, et al. 1997. The association of drinking water source and chlorination by-products with cancer incidence among postmenopausal women in Iowa: a prospective cohort study. *Am J Public Health* 87(7):1168-1176. <https://doi.org/10.2105/ajph.87.7.1168>.
- Du J, Liu D, Zhang Z, et al. 2024. Comparative effectiveness of sequential and synergistic (VUV/UV) and chlorine disinfection on DBPs and humic acid reduction. *Sep Purif Technol* 335:126083. <https://doi.org/10.1016/j.seppur.2023.126083>.
- Dunnick JK, Melnick RL. 1993. Assessment of the carcinogenic potential of chlorinated water: experimental studies of chlorine, chloramine, and trihalomethanes. *J Natl Cancer Inst* 85(10):817-822. <https://doi.org/10.1093/jnci/85.10.817>.
- Eisenreich SJ, Looney BB, Thornton JD. 1981. Airborne organic contaminants of the Great Lakes ecosystem. *Environ Sci Technol* 15(1):30-38.
- Ekstrom T, Warholm M, Kronevi T, et al. 1988. Recovery of malondialdehyde in urine as a 2,4-dinitrophenylhydrazine derivative after exposure to chloroform or hydroquinone. *Chem Biol Interact* 67:25-31.
- El-Masri HA, Mumtaz MM, Yushak ML. 2004. Application of physiologically-based pharmacokinetic modeling to investigate the toxicological interaction between chlorpyrifos and parathion in the rat. *Environ Toxicol Pharmacol* 16(1-2):57-71. <https://doi.org/10.1016/j.etap.2003.10.002>.
- El-Shenawy NS, Abdel-Rahman MS. 1993. Evaluation of chloroform cardiotoxicity utilizing a modified isolated rat cardiac myocytes. *Toxicol Lett* 69(3):249-256.
- Enhorning G, Potoschnik R, Possmayer F, et al. 1986. Pulmonary surfactant films affected by solvent vapors. *Anesth Analg* 65:1275-1280.
- EPA. 1978. Teratology and acute toxicology of selected chemical pesticides administered by inhalation. Research Triangle Park, NC: U.S. Environmental Protection Agency. EPA600178003. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=91013F9I.txt>. February 21, 2023.
- EPA. 1980. Effects of chloroform in the drinking water of rats and mice: Ninety-day subacute toxicity study. Cincinnati, OH: U.S. Environmental Protection Agency. EPA600180030. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9100SIV9.txt>. February 21, 2023.
- EPA. 1982. Volatile organic chemicals in the atmosphere: An assessment of available data. Research Triangle Park, NC: U.S. Environmental Protection Agency. EPA600S383027. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000TMEP.txt>. February 20, 2023.
- EPA. 1985a. Health assessment document for chloroform. Washington, DC: U.S. Environmental Protection Agency. PB86105004. EPA600884004F. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9100RB9S.txt>. February 21, 2023.
- EPA. 1985b. Survey of chloroform emission sources. Research Triangle Park, NC: U.S. Environmental Protection Agency. EPA450385026. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000JE7F.txt>. February 21, 2023.
- EPA. 1986. Guidelines for carcinogen risk assessment. U.S. Environmental Protection Agency. EPA630R000049. <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=54933>. June 29, 2021.
- EPA. 1987. Volatile organic chemicals in 10 public-access buildings. Research Triangle Park, NC: U.S. Environmental Protection Agency. PB87191607. EPA600D87152. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB87191607.xhtml>. February 21, 2023.

8. REFERENCES

- EPA. 1988a. Land disposal restrictions for third scheduled wastes; final rule. U.S. Environmental Protection Agency. Fed Reg 53(159):31138-31145.
- EPA. 1988b. National ambient volatile organic compounds (VOCS) database update. U.S. Environmental Protection Agency. PB88195631. EPA600388010a. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB88195631.xhtml>. February 21, 2023.
- EPA. 1988c. Recommendations for and documentation of biological values for use in risk assessment. Cincinnati, OH: U.S. Environmental Protection Agency. PB88179874. EPA600687008. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=500022JL.txt>. February 21, 2023.
- EPA. 1989. Land disposal restrictions for third scheduled wastes; proposed rule. 40 CFR Parts 148, 261, 264, 265, 268, and 271. U.S. Environmental Protection Agency. Fed Reg 54:48372-48396.
- EPA. 1990a. Removal and fate of RCRA and CERCLA toxic organic pollutants in wastewater treatment. Cincinnati, OH: U.S. Environmental Protection Agency. EPA600S289026. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000TM68.txt>. February 20, 2023.
- EPA. 1990b. Interim methods for development of inhalation reference doses. Washington, DC: U.S. Environmental Protection Agency. EPA600890066A. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=30001JXM.txt>. February 21, 2023.
- EPA. 1994. Methods for derivation inhalation reference concentrations and application of inhalation dosimetry. Washington, DC: U.S. Environmental Protection Agency. PB2000100284. EPA600890066F. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2000100284.xhtml>. February 20, 2023.
- EPA. 1995. Method 551.1. Determination of chlorination disinfection byproducts, chlorinated solvents, and halogenated pesticides/herbicides in drinking water by liquid-liquid chromatography with electron-capture detection. Revision 1. Cincinnati, OH: U.S. Environmental Protection Agency. <https://www.epa.gov/sites/default/files/2015-06/documents/epa-551.1.pdf>. January 26, 2023.
- EPA. 1996. Proposed guidelines for carcinogen risk assessment. U.S. Environmental Protection Agency. EPA600P92003C. <https://cfpub.epa.gov/ncea/risk/recorddisplay.cfm?deid=55868>. June 29, 2021.
- EPA. 2005. Guidelines for carcinogen risk assessment. U.S. Environmental Protection Agency. EPA630P03001F. https://www.epa.gov/sites/default/files/2013-09/documents/cancer_guidelines_final_3-25-05.pdf. June 29, 2021.
- EPA. 2012. Vapor intrusion database. U.S. Environmental Protection Agency. <https://www.epa.gov/vaporintrusion/vapor-intrusion-database>. February 6, 2023.
- EPA. 2014. Method 8021B: Revision 3: aromatic and halogenated volatiles by gas chromatography using photoionization and/or electrolytic conductivity detectors. U.S. Environmental Protection Agency. SW-846 Update V. <https://www.epa.gov/sites/default/files/2015-12/documents/8021b.pdf>. January 26, 2023.
- EPA. 2016. Vapor intrusion screening level calculator. U.S. Environmental Protection Agency. <https://www.epa.gov/vaporintrusion>. May 8, 2024.
- EPA. 2018a. Method 8260D: Volatile organic compounds by gas chromatography/mass spectrometry. U.S. Environmental Protection Agency. SW-846. https://www.epa.gov/sites/default/files/2018-06/documents/method_8260d_update_vi_final_06-11-2018.pdf. February 21, 2023.
- EPA. 2018b. 2018 Edition of the drinking water standards and health advisories. Washington, DC: U.S. Environmental Protection Agency. EPA822F18001. <https://www.epa.gov/system/files/documents/2022-01/dwtable2018.pdf>. June 15, 2022.
- EPA. 2018c. Compiled AEGL values. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2018-08/documents/compiled_aegls_update_27jul2018.pdf. April 12, 2020.
- EPA. 2018d. About acute exposure guideline levels (AEGLs). U.S. Environmental Protection Agency. <https://www.epa.gov/aegl/about-acute-exposure-guideline-levels-aegls>. July 26, 2018.

8. REFERENCES

- EPA. 2022. Toxic chemical release inventory reporting forms and instructions: Revised 2021 version. U.S. Environmental Protection Agency. EPA740B22002. https://ordspub.epa.gov/ords/guideme_ext/guideme_ext/guideme/file/ry_2021_rfi.pdf. August 22, 2023.
- EPA. 2023a. 2020 CDR data. U.S. Environmental Protection Agency. <https://www.epa.gov/chemical-data-reporting/access-cdr-data#2020>. October 26, 2022.
- EPA. 2023b. Chloroform. Pesticide product and label system. U.S. Environmental Protection Agency. https://ordspub.epa.gov/ords/pesticides/f?p=113:6:::P6_ACTIVE_INACTIVE:9. January 12, 2023.
- EPA. 2023c. Inert use information | InertFinder | pesticides. U.S. Environmental Protection Agency. <https://ordspub.epa.gov/ords/pesticides/f?p=INERTFINDER:1:::1>. February 20, 2023.
- EPA. 2023d. Annual summary data: chloroform. AQS: Concentration by monitor. U.S. Environmental Protection Agency. https://aqs.epa.gov/aqsweb/airdata/download_files.html. January 16, 2023.
- EPA. 2023e. National primary drinking water regulations. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 141. <https://www.govinfo.gov/content/pkg/CFR-2023-title40-vol25/pdf/CFR-2023-title40-vol25-part141.pdf>. May 3, 2024.
- EPA. 2023f. 2020 National emission inventory (NEI) data: Chloroform. U.S. Environmental Protection Agency. <https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-data>. May 8, 2024.
- Eschenbrenner AB, Miller E. 1945. Induction of hepatomas in mice by repeated oral administration of chloroform, with observations on sex differences. *J Natl Cancer Inst* 5:251-255. <https://doi.org/10.1093/jnci/5.4.251>.
- Evans MV, Eklund CR, Williams DN, et al. 2020. Global optimization of the Michaelis-Menten parameters using physiologically-based pharmacokinetic (PBPK) modeling and chloroform vapor uptake data in F344 rats. *Inhal Toxicol* 32(3):97-109. <https://doi.org/10.1080/08958378.2020.1742818>.
- Ewaid SH, Abed SA, Al-Ansari N. 2020. Acute toxicity of the water chlorination byproduct (chloroform) in male mice. *AIP Conf Proceed* 2290(1):020007. <https://doi.org/10.1063/5.0027353>.
- Fan VS, Savage RE, Buckley TJ. 2007. Methods and measurements for estimating human dermal uptake of volatile organic compounds and for deriving dermal permeability coefficients. *Toxicol Mech Methods* 17(5):295-304. <https://doi.org/10.1080/15376510601017801>.
- Fang C, Behr M, Xie F, et al. 2008. Mechanism of chloroform-induced renal toxicity: non-involvement of hepatic cytochrome P450-dependent metabolism. *Toxicol Appl Pharmacol* 227(1):48-55. <https://doi.org/10.1016/j.taap.2007.10.014>.
- Farrow P. 1984. Death by chloroform. *Police J* 57(4):347-355. <https://doi.org/10.1177/0032258X8405700406>.
- FDA. 2023. Subpart B - Requirements for specific standardized beverages. Bottled water. U.S. Food and Drug Administration. Code of Federal Regulations. 21 CFR 165.110. <https://www.govinfo.gov/content/pkg/CFR-2023-title21-vol2/pdf/CFR-2023-title21-vol2-sec165-110.pdf>. May 3, 2024.
- FDA. 2024a. Chloroform. Substances added to food. U.S. Food and Drug Administration. <https://www.cfsanappsexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CHLOROFORM>. May 3, 2024.
- FDA. 2024b. Part 175. Indirect food additives: Adhesives and components of coatings. Subpart B. Substances for use only as components of adhesives. Sec. 175.105 Adhesives. Code of Federal Regulations. U.S. Food and Drug Administration. 21 CFR 175.105. <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=175.105>. July 25, 2024.
- FDA. 2024c. Part 177. Indirect food additives: Polymers. Subpart B. Substances for use as basic components of single and repeated use food contact surfaces. Sec. 177.1580 Polycarbonate resins. Code of Federal Regulations. U.S. Food and Drug Administration. 21 CFR 177.1580.

8. REFERENCES

- <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=177.1580>. July 25, 2024.
- FDA. 2024d. Part 177. Indirect food additives: Polymers. Subpart B. Substances for use as basic components of single and repeated use food contact surfaces. Sec. 177.1585 Polyester carbonate resins. Code of Federal Regulations. U.S. Food and Drug Administration. 21 CFR 177.1585. <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=177.1585>. July 25, 2024.
- Featherstone HW. 1947. Chloroform. *Anesthesiology* 8:362-371.
- Feingold A, Holaday DA. 1977. The pharmacokinetics of metabolism of inhalation anaesthetics: A simulation study. *Br J Anaesth* 49:155-162.
- Ferrario JB, Lawler GC, DeLeon IR, et al. 1985. Volatile organic pollutants in biota and sediments of Lake Pontchartrain. *Bull Contam Toxicol* 34(2):246-255.
- Flanagan RJ, Pounder DJ. 2010. A chloroform-related death: analytical and forensic aspects. *Forensic Sci Int* 197(1-3):89-96. <https://doi.org/10.1016/j.forsciint.2009.12.061>.
- Fleming-Jones ME, Smith RE. 2003. Volatile organic compounds in foods: a five year study. *J Agric Food Chem* 51(27):8120-8127. <https://doi.org/10.1021/jf0303159>.
- Florentin A, Hautemaniere A, Hartemann P. 2011. Health effects of disinfection by-products in chlorinated swimming pools. *Int J Hyg Environ Health* 214(6):461-469. <https://doi.org/10.1016/j.ijheh.2011.07.012>.
- Font-Ribera L, Kogevinas M, Zock JP, et al. 2010. Short-term changes in respiratory biomarkers after swimming in a chlorinated pool. *Environ Health Perspect* 118(11):1538-1544. <https://doi.org/10.1289/ehp.1001961>.
- Font-Ribera L, Gracia-Lavedan E, Aragonés N, et al. 2018. Long-term exposure to trihalomethanes in drinking water and breast cancer in the Spanish multicase-control study on cancer (MCC-SPAIN). *Environ Int* 112:227-234. <https://doi.org/10.1016/j.envint.2017.12.031>.
- Fry BJ, Taylor R, Hathaway DE. 1972. Pulmonary elimination of chloroform and its metabolite in man. *Arch Int Pharmacodyn* 196:98-111.
- Gaillard Y, Masson-Seyer MF, Giroud M, et al. 2006. A case of drug-facilitated sexual assault leading to death by chloroform poisoning. *International Journal of Legal Medicine* 120(4):241-245. <https://doi.org/10.1007/s00414-005-0020-7>.
- Gao Y, Zhang Y, Kamijima M, et al. 2014. Quantitative assessments of indoor air pollution and the risk of childhood acute leukemia in Shanghai. *Environ Pollut* 187:81-89. <https://doi.org/10.1016/j.envpol.2013.12.029>.
- Gargas ML, Burgess RJ, Voisard DE, et al. 1989. Partition coefficients of low-molecular-weight volatile chemicals in various liquids and tissues. *Toxicol Appl Pharmacol* 98(1):87-99. [https://doi.org/10.1016/0041-008x\(89\)90137-3](https://doi.org/10.1016/0041-008x(89)90137-3).
- Gearhart JM, Seckel C, Vinegar A. 1993. In vivo metabolism of chloroform in B6C3F1 mice determined by the method of gas uptake: the effects of body temperature on tissue partition coefficients and metabolism. *Toxicol Appl Pharmacol* 119(2):258-266.
- Gehring PJ. 1968. Hepatotoxic potency of various chlorinated hydrocarbon vapours relative to their narcotic and lethal potencies in mice. *Toxicol Appl Pharmacol* 13(3):287-298. [https://doi.org/10.1016/0041-008X\(68\)90102-6](https://doi.org/10.1016/0041-008X(68)90102-6).
- Gemma S, Vittozzi L, Testai E. 2003. Metabolism of chloroform in the human liver and identification of the competent P450s. *Drug Metab Dispos* 31(3):266-274. <https://doi.org/10.1124/dmd.31.3.266>.
- Getter DR, Chang LW, Hanley NM, et al. 2004a. Analysis of in vivo and in vitro DNA strand breaks from trihalomethane exposure. *J Carcinog* 3(1):2. <https://doi.org/10.1186/1477-3163-3-2>.
- Getter DR, George MH, Moore TM, et al. 2004b. The effects of a high animal fat diet on the induction of aberrant crypt foci in the colons of male F344/N rats exposed to trihalomethanes in the drinking water. *Toxicol Lett* 147(3):245-252. <https://doi.org/10.1016/j.toxlet.2003.11.006>.
- Gettler AO, Blume H. 1931. Chloroform in the brain, lungs, and liver. Quantitative recovery and determination. *Arch Pathol* 11:554-560.

8. REFERENCES

- Gibbons J, Laha S. 1999. Water purification systems: a comparative analysis based on the occurrence of disinfection by-products. *Environ Pollut* 106(3):425-428. [https://doi.org/10.1016/s0269-7491\(99\)00097-4](https://doi.org/10.1016/s0269-7491(99)00097-4).
- Giusti GV, Chiarotti M. 1981. Double 'suicide' by chloroform in a pair of twins. *Med Sci Law* 21(1):2-3. <https://doi.org/10.1177/002580248102100102>.
- Gocke E, King MT, Eckhardt K, et al. 1981. Mutagenicity of cosmetics ingredients licensed by the European Communities. *Mutat Res* 90:91-109.
- Gold LS, Stewart PA, Milliken K, et al. 2011. The relationship between multiple myeloma and occupational exposure to six chlorinated solvents. *Occup Environ Med* 68(6):391-399. <https://doi.org/10.1136/oem.2009.054809>.
- Gomez MID, Castro JA. 1980. Nuclear activation of carbon tetrachloride and chloroform. *Res Commun Chem Pathol Pharmacol* 27:191-194.
- Goodman LS, Gilman A. 1980. Trichloroethylene and chloroform. In: *The pharmacological basis of therapeutics*. 6th ed. New York, NY: MacMillan Publishing, 291-292, 1646.
- Gopinath C, Ford EJH. 1975. The role of microsomal hydroxylases in the modification of chloroform and carbon tetrachloride. *Toxicol Appl Pharmacol* 63:281-291.
- Gordon SM, Wallace LA, Pellizzari ED, et al. 1988. Human breath measurements in a clean-air chamber to determine half-lives for volatile organic compounds. *Atmos Environ* 22:2165-2170.
- Gordon SM, Wallace LA, Callahan PJ, et al. 1998. Effect of water temperature on dermal exposure to chloroform. *Environ Health Perspect* 106(6):337-345. <https://doi.org/10.1289/ehp.98106337>.
- Gosselink MJ, Siegel AM, Suk E, et al. 2012. A case of 'cybersuicide' attempt using chloroform. *Gen Hosp Psychiatry* 34(4):e7-8. <https://doi.org/10.1016/j.genhosppsy.2012.01.001>.
- Gossett JM. 1987. Measurement of Henry's law constant for Cl and C2 chlorinated hydrocarbons. *Environ Sci Technol* 21:202-206.
- Grazuleviciene R, Nieuwenhuijsen MJ, Vencloviene J, et al. 2011. Individual exposures to drinking water trihalomethanes, low birth weight and small for gestational age risk: a prospective Kaunas cohort study. *Environ Health* 10:32. <https://doi.org/10.1186/1476-069X-10-32>.
- Grazuleviciene R, Kapustinskiene V, Vencloviene J, et al. 2013. Risk of congenital anomalies in relation to the uptake of trihalomethane from drinking water during pregnancy. *Occup Environ Med* 70(4):274-282. <https://doi.org/10.1136/oemed-2012-101093>.
- Green T, Lee R, Toghil A, et al. 2001. The toxicity of styrene to the nasal epithelium of mice and rats: studies on the mode of action and relevance to humans. *Chem Biol Interact* 137(2):185-202. [https://doi.org/10.1016/s0009-2797\(01\)00236-8](https://doi.org/10.1016/s0009-2797(01)00236-8).
- Greene SC, White NR. 2014. Images in emergency medicine: Young woman with cardiac arrest. Defatting dermatitis as a result of chloroform exposure. *Ann Emerg Med* 64(3):231, 247. <https://doi.org/10.1016/j.annemergmed.2013.11.015>.
- Gron C, Laturus F, Jacobsen OS. 2012. Reliable test methods for the determination of a natural production of chloroform in soils. *Environ Monit Assess* 184(3):1231-1241. <https://doi.org/10.1007/s10661-011-2035-5>.
- Gupta M, Gupta A, Suidan MT, et al. 1996. Biotransformation rates of chloroform under anaerobic conditions. II. Sulfate reduction. *Water Res* 30:1387-1394.
- Haddad S, Tardif GC, Tardif R. 2006. Development of physiologically based toxicokinetic models for improving the human indoor exposure assessment to water contaminants: trichloroethylene and trihalomethanes. *J Toxicol Environ Health A* 69(23):2095-2136. <https://doi.org/10.1080/15287390600631789>.
- Hajimiragha H, Ewers U, Jansen-Rossek R, et al. 1986. Human exposure to volatile halogenated hydrocarbons from the general environment. *Int Arch Occup Environ Health* 58:141-150.
- Hakim A, Jain AK, Jain R. 1992. Chloroform ingestion causing toxic hepatitis. *J Assoc Physicians India* 40(7):477.
- Harada K, Ichiyama T, Ikeda H, et al. 1997. An autopsy case of acute chloroform intoxication after intermittent inhalation for years. *Nihon Hoigaku Zasshi* 51(4):319-323.

8. REFERENCES

- Hard GC, Boorman GA, Wolf DC. 2000. Re-evaluation of the 2-year chloroform drinking water carcinogenicity bioassay in Osborne-Mendel rats supports chronic renal tubule injury as the mode of action underlying the renal tumor response. *Toxicol Sci* 53(2):237-244. <https://doi.org/10.1093/toxsci/53.2.237>.
- Harley KG, Calderon L, Nolan JES, et al. 2021. Changes in Latina Women's exposure to cleaning chemicals associated with switching from conventional to "green" household cleaning products: The LUCIR Intervention Study. *Environ Health Perspect* 129(9):97001. <https://doi.org/10.1289/EHP8831>.
- Harris RA, Groh GI. 1985. Membrane disordering effects of anesthetics are enhanced by gangliosides. *Anesthesiology* 62:115-119.
- Harris RN, Ratnayake JH, Garry VF, et al. 1982. Interactive hepatotoxicity of chloroform and carbon tetrachloride. *Toxicol Appl Pharmacol* 63:281-291.
- Harris RH, Highland JH, Rocricks JV, et al. 1984. Adverse health effects at a Tennessee hazardous waste disposal site. *Haz Waste* 1:183-204.
- Hartig S, Fries S, Balcarcel RR. 2005. Reduced mitochondrial membrane potential and metabolism correspond to acute chloroform toxicity of in vitro hepatocytes. *J Appl Toxicol* 25(4):310-317. <https://doi.org/10.1002/jat.1067>.
- Haydon DA, Requena J, Simon AJB. 1988. The potassium conductance of the resting squid axon and its blockage by clinical concentrations of general anaesthetics. *J Physiol* 402:363-374.
- Heavner DL, Morgan WT, Ogden MW. 1996. Determination of volatile organic compounds and respirable suspended particulate matter in New Jersey and Pennsylvania homes and workplaces. *Environ Int* 22(2):159-183. [https://doi.org/10.1016/0160-4120\(96\)00003-7](https://doi.org/10.1016/0160-4120(96)00003-7).
- Heck JE, Park AS, Qiu J, et al. 2013. An exploratory study of ambient air toxics exposure in pregnancy and the risk of neuroblastoma in offspring. *Environ Res* 127:1-6. <https://doi.org/10.1016/j.envres.2013.09.002>.
- Heck JE, Park AS, Qiu J, et al. 2014. Risk of leukemia in relation to exposure to ambient air toxics in pregnancy and early childhood. *International Journal of Hygiene and Environmental Health* 217(6):662-668. <https://doi.org/10.1016/j.ijheh.2013.12.003>.
- Heilbrunn G, Liebert E, Szanto PB. 1945. Chronic chloroform poisoning: Clinical and pathologic report of a case. *Arch Neurol Psych* 53:68-72.
- Henson JM, Yates MV, Cochran JW, et al. 1988. Microbial removal of halogenated methanes, ethanes, and ethylenes in an aerobic soil exposed to methane. *Fed Eur Microbiol Soc Microbiol Ecol* 53:193-201.
- Herren-Freund SL, Pereira MA. 1987. The carcinogenicity of organic chemicals found in drinking water. In: *Proceedings, water quality technology conference : Portland, Oregon, November 16-20, 1986*. American Water Works Association, 485-500.
- Hertzberg RC, Teuschler LK, McDonald A, et al. 2024. Evaluation of the interaction-based hazard index formula using data on four trihalomethanes from U.S. EPA's multiple-purpose design study. *Toxics* 12(5):305. <https://doi.org/10.3390/toxics12050305>.
- Hewitt WR, Brown EM. 1984. Nephrotoxic interactions between ketonic solvents and halogenated aliphatic chemicals. *Fundam Appl Toxicol* 4:902-908.
- Hewitt WR, Miyajima H, Cote MG, et al. 1979. Acute alteration of chloroform-induced hepato- and nephrotoxicity by mirex and Kepone. *Toxicol Appl Pharmacol* 48:509-527.
- Hewitt LA, Palmason C, Masson S, et al. 1990. Evidence for the involvement of organelles in the mechanism of ketone-potentiated chloroform-induced hepatotoxicity. *Liver* 10:35-48.
- Heywood R, Sortwell RJ, Noel PRB, et al. 1979. Safety evaluation of toothpaste containing chloroform. III. Long-term study in beagle dogs. *J Environ Pathol Toxicol* 2(3):835-851.
- Hickey RF, Vanderwielen J, Switzenbaum MS. 1987. Effects of organic toxicants on methane production and hydrogen gas levels during the anaerobic digestion of waste activated sludge. *Water Res* 21(11):1417-1427.

8. REFERENCES

- Hinckley AF, Bachand AM, Reif JS. 2005. Late pregnancy exposures to disinfection by-products and growth-related birth outcomes. *Environ Health Perspect* 113(12):1808-1813. <https://doi.org/10.1289/ehp.8282>.
- Hoekstra EJ, Duyzer JH, Deleer EWB, et al. 2001. Chloroform-concentration gradients in soil air and atmospheric air, and emission fluxes from soil. *Atmos Environ* 35:61-70.
- Hoffman CS, Mendola P, Savitz DA, et al. 2008. Drinking water disinfection by-product exposure and fetal growth. *Epidemiology* 19(5):729-737. <https://doi.org/10.1097/EDE.0b013e3181812bd4>.
- Hoigne J, Bader H. 1988. The formation of trichloronitromethane (chloropicrin) and chloroform in a combined ozonation/chlorination treatment of drinking water. *Water Res* 22(3):313-319.
- Holbrook M. 2003. Chloroform. In: Kirk-Othmer encyclopedia of chemical technology. Vol. 6. John Wiley & Sons, 279-290. <https://doi.org/10.1002/0471238961.0308121508151202.a01.pub2>.
- Hooth MJ, McDorman KS, Hester SD, et al. 2002. The carcinogenic response of Tsc2 mutant Long-Evans (Eker) rats to a mixture of drinking water disinfection by-products was less than additive. *Toxicol Sci* 69(2):322-331. <https://doi.org/10.1093/toxsci/69.2.322>.
- Howard MO, Bowen SE, Garland EL, et al. 2011. Inhalant use and inhalant use disorders in the United States. *Addict Sci Clin Pract* 6(1):18-31.
- Hu K, Schwarz DW. 1987. Electrophysiological evaluation of chloroform-induced inner ear damage. *Arch Otorhinolaryngol* 244(4):222-228. <https://doi.org/10.1007/bf00455310>.
- Huang AT, Batterman S. 2009. Formation of trihalomethanes in foods and beverages. *Food Addit Contam* 26(7):947-957. <https://doi.org/10.1080/02652030902897739>.
- Huang AT, Batterman S. 2010. Sorption of trihalomethanes in foods. *Environ Int* 36(7):754-762. <https://doi.org/10.1016/j.envint.2010.05.014>.
- Huang WC, Liu M, Zhang FG, et al. 2022. Removal of disinfection byproducts and toxicity of chlorinated water by post-treatments of ultraviolet/hydrogen peroxide and ultraviolet/peroxymonosulfate. *J Clean Prod* 352:131563. <https://doi.org/10.1016/j.jclepro.2022.131563>.
- Hubrich C, Stuhl F. 1980. The ultraviolet absorption of some halogenated methanes and ethanes of atmospheric interest. *J Photochem* 12:93-107.
- Hunkeler D, Laier T, Breider F, et al. 2012. Demonstrating a natural origin of chloroform in groundwater using stable carbon isotopes. *Environ Sci Technol* 46:6096-6101. <https://doi.org/dx.doi.org/10.1021/es204585d>.
- Hutchens KS, Kung M. 1985. "Experimentation" with chloroform. *Am J Med* 78(4):715-718. [https://doi.org/10.1016/0002-9343\(85\)90421-8](https://doi.org/10.1016/0002-9343(85)90421-8).
- Hwang JH, Kim JI. 2022. A case report of toxic hepatitis caused by chloroform in automotive parts manufacturer coating process. *Ann Occup Environ Med* 34:e22. <https://doi.org/10.35371/aoem.2022.34.e22>.
- IARC. 1979. Chloroform. In: IARC monographs on the evaluation of carcinogenic risk of chemicals to humans. Volume 20: Some halogenated hydrocarbons. Lyon, France: World Health Organization, 401-427. <https://publications.iarc.fr/Book-And-Report-Series/Iarc-Monographs-On-The-Identification-Of-Carcinogenic-Hazards-To-Humans/Some-Halogenated-Hydrocarbons-1979>. February 21, 2023.
- IARC. 1999. Chloroform. IARC monographs on the evaluation of carcinogenic risks to humans. Volume 73. Some chemicals that cause tumours of the kidney or urinary bladder in rodents and some other substances. Lyon, France: International Agency for Research on Cancer. 131-182. <https://publications.iarc.fr/91>. May 26, 2021.
- Ikatsu H, Nakajima T. 1992. Hepatotoxic interaction between carbon tetrachloride and chloroform in ethanol treated rats. *Arch Toxicol* 66(8):580-586.
- Ikatsu H, Shinoda S, Nakajima T. 1998. CYP2E1 Level in rat liver injured by the interaction between carbon tetrachloride and chloroform. *J Occup Health* 40(3):223-229. <https://doi.org/10.1539/joh.40.223>.

8. REFERENCES

- Ilett KF, Reid WD, Sipes IG, et al. 1973. Chloroform toxicity in mice: Correlation of renal and hepatic necrosis with covalent binding of metabolites to tissue macromolecules. *Exp Mol Pathol* 19:215-229.
- Infante-Rivard C, Amre D, Sinnett D. 2002. GSTT1 and CYP2E1 polymorphisms and trihalomethanes in drinking water: effect on childhood leukemia. *Environ Health Perspect* 110(6):591-593. <https://doi.org/10.1289/ehp.02110591>.
- Infante-Rivard C, Siemiatycki J, Lakhani R, et al. 2005. Maternal exposure to occupational solvents and childhood leukemia. *Environ Health Perspect* 113(6):787-792. <https://doi.org/10.1289/ehp.7707>.
- IRIS. 2001. Chloroform. CASRN 67-66-3. Integrated Risk Information System. Chemical assessment summary. U.S. Environmental Protection Agency. https://iris.epa.gov/static/pdfs/0025_summary.pdf. May 26, 2021.
- Isaacs KK, Evans MV, Harris TR. 2004. Visualization-based analysis for a mixed-inhibition binary PBPK model: determination of inhibition mechanism. *J Pharmacokinet Pharmacodyn* 31(3):215-242. <https://doi.org/10.1023/b:jopa.0000039565.11358.94>.
- Islam MS, Zhao L, McDougal JN, et al. 1995. Uptake of chloroform by skin during short exposures to contaminated water. *Risk Anal* 15(3):343-352. <https://doi.org/10.1111/j.1539-6924.1995.tb00327.x>.
- Islam MS, Zhao L, Zhou J, et al. 1996. Systemic uptake and clearance of chloroform by hairless rats following dermal exposure. I. Brief exposure to aqueous solutions. *Risk Anal* 16(3):349-357. <https://doi.org/10.1111/j.1539-6924.1996.tb01469.x>.
- Islam MS, Zhao L, Zhou J, et al. 1999a. Systemic uptake and clearance of chloroform by hairless rats following dermal exposure: II. Absorption of the neat solvent. *Am Ind Hyg Assoc J* 60(4):438-443. <https://doi.org/10.1080/00028899908984462>.
- Islam MS, Zhao L, McDougal JN, et al. 1999b. Uptake of chloroform by skin on brief exposures to the neat liquid. *Am Ind Hyg Assoc J* 60(1):5-15. <https://doi.org/10.1080/00028899908984417>.
- Izatt N, Nieuwenhuijsen MJ, Bennett J, et al. 2013. Chlorination by-products in tap water and semen quality in England and Wales. *Occup Environ Med* 70(11):754-760. <https://doi.org/10.1136/oemed-2012-101339>.
- Ito Y, Lind RC, Begay CK, et al. 2000. Late administration of dimethyl sulfoxide minimizes the hepatic microvascular inflammatory response to chloroform in rats. *Hepatol Res* 18(3):203-217. [https://doi.org/10.1016/s1386-6346\(00\)00068-1](https://doi.org/10.1016/s1386-6346(00)00068-1).
- Jakobson I, Wahlberg JE, Holmberg B, et al. 1982. Uptake via the blood and elimination of 10 organic solvents following epicutaneous exposure of anesthetized guinea pigs. *Toxicol Appl Pharmacol* 63:181-187.
- Jan CR, Chen LW, Lin MW. 2000. Ca(2+) mobilization evoked by chloroform in Madin-Darby canine kidney cells. *J Pharmacol Exp Ther* 292(3):995-1001.
- Jayaweera D, Islam S, Gunja N, et al. 2017. Chloroform ingestion causing severe gastrointestinal injury, hepatotoxicity and dermatitis confirmed with plasma chloroform concentrations. *Clin Toxicol* 55(2):147-150. <https://doi.org/10.1080/15563650.2016.1249795>.
- Jeffers PM, Ward LM, Woytowitch LM, et al. 1989. Homogenous hydrolysis rate constants for selected chlorinated methanes, ethanes, ethenes, and propanes. *Environ Sci Technol* 23:967-969.
- Jenkins A, Greenblatt EP, Faulkner HJ, et al. 2001. Evidence for a common binding cavity for three general anesthetics within the GABAA receptor. *J Neurosci* 21(6):RC136. <https://doi.org/10.1523/JNEUROSCI.21-06-j0002.2001>.
- Jia C, Yu X, Masiak W. 2012. Blood/air distribution of volatile organic compounds (VOCs) in a nationally representative sample. *Sci Total Environ* 419:225-232. <https://doi.org/10.1016/j.scitotenv.2011.12.055>.
- Jiao J, Zheng T, Lan Q, et al. 2012. Occupational solvent exposure, genetic variation of DNA repair genes, and the risk of non-Hodgkin's lymphoma. *Eur J Cancer Prev* 21(6):580-584. <https://doi.org/10.1097/CEJ.0b013e328351c762>.
- 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.

8. REFERENCES

- Johansson JS. 1997. Binding of the volatile anesthetic chloroform to albumin demonstrated using tryptophan fluorescence quenching. *J Bio Chem* 272(29):17961-17965. <https://doi.org/10.1074/jbc.272.29.17961>.
- Jones WM, Margolis G, Stephen CR. 1958. Hepatotoxicity of inhalation anesthetic drugs. *Anesthesiology* 19(6):715-723. <https://doi.org/10.1097/00000542-195811000-00001>.
- Jones RR, DellaValle CT, Weyer PJ, et al. 2019. Ingested nitrate, disinfection by-products, and risk of colon and rectal cancers in the Iowa Women's Health Study cohort. *Environ Int* 126:242-251. <https://doi.org/10.1016/j.envint.2019.02.010>.
- Jorgenson TA, Meierhenry EF, Rushbrook CJ, et al. 1985. Carcinogenicity of chloroform in drinking water to male Osborne-Mendel rats and female B6C3F1 mice. *Fundam Appl Toxicol* 5(4):760-769. [https://doi.org/10.1016/0272-0590\(85\)90200-3](https://doi.org/10.1016/0272-0590(85)90200-3).
- Kanada M, Miyagawa M, Sato M, et al. 1994. Neurochemical profile of effects of 28 neurotoxic chemicals on the central nervous system in rats (1) effects of oral administration on brain contents of biogenic amines and metabolites. *Ind Health* 32:145-164.
- Kanan A, Selbes M, Karanfil T. 2015. Occurrence and formation of disinfection by-products in indoor U.S. swimming pools. *ACS Symp Ser* 1190:405-430. <https://doi.org/10.1021/bk-2015-1190.ch021>.
- Kaneko T, Wang P, Sato A. 2000. Relationship between blood/air partition coefficients of lipophilic organic solvents and blood triglyceride levels. *Toxicology* 143(2):203-208. [https://doi.org/10.1016/s0300-483x\(99\)00170-5](https://doi.org/10.1016/s0300-483x(99)00170-5).
- Kang YJ, Ahn J, Hwang YI. 2014. Acute liver injury in two workers exposed to chloroform in cleanrooms: a case report. *Ann Occup Environ Med* 26(1):49. <https://doi.org/10.1186/s40557-014-0049-5>.
- Kargalioglu Y, McMillan BJ, Minear RA, et al. 2002. Analysis of the cytotoxicity and mutagenicity of drinking water disinfection by-products in *Salmonella typhimurium*. *Teratog Carcinog Mutagen* 22(2):113-128. <https://doi.org/10.1002/tcm.10010>.
- Kasai T, Nishizawa T, Arito H, et al. 2002. Acute and subchronic inhalation toxicity of chloroform in rats and mice. *J Occup Health* 44(4):193-202. <https://doi.org/10.1539/joh.44.193>.
- Kasso WV, Wells MR. 1981. A survey of trihalomethanes in the drinking water system of Murfreesboro, Tennessee, USA. *Bull Environ Contam Toxicol* 27:295-302.
- Kaufman JA, Wright JM, Evans A, et al. 2018. Associations between disinfection by-product exposures and craniofacial birth defects. *J Occup Environ Med* 60(2):109-119. <https://doi.org/10.1097/jom.0000000000001191>.
- Kaufman JA, Wright JM, Evans A, et al. 2020. Disinfection by-product exposures and the risk of musculoskeletal birth defects. *Environ Epidemiol* 4(1):e081. <https://doi.org/10.1097/ee9.0000000000000081>.
- Kawamura K, Kaplan IR. 1983. Organic compounds in the rainwater of Los Angeles. *Environ Sci Technol* 17:497-501.
- Keegan TE, Simmons JE, Pegram RA. 1998. NOAEL and LOAEL determinations of acute hepatotoxicity for chloroform and bromodichloromethane delivered in an aqueous vehicle to F344 rats. *J Toxicol Environ Health* 55(1):65-75. <https://doi.org/10.1080/009841098158629>.
- Kerger BD, Suder DR, Schmidt CE, et al. 2005. Airborne exposure to trihalomethanes from tap water in homes with refrigeration-type and evaporative cooling systems. *J Toxicol Environ Health A* 68(6):401-429. <https://doi.org/10.1080/15287390590903577>.
- Khallef M, Cenkci S, Akyil D, et al. 2018. Ames and random amplified polymorphic DNA tests for the validation of the mutagenic and/or genotoxic potential of the drinking water disinfection by-products chloroform and bromoform. *J Environ Sci Health A Toxic Hazard Subst Environ Eng* 53(2):154-159. <https://doi.org/10.1080/10934529.2017.1383134>.
- Kim H. 2008. A case of acute toxic hepatitis after suicidal chloroform and dichloromethane ingestion. *Am J Emerg Med* 26:1073.e1073-1073.e1076. <https://doi.org/10.1016/j.ajem.2008.03.050>.
- Kim NY, Park SW, Suh JK. 1996. Two fatal cases of dichloromethane or chloroform poisoning. *J Forensic Sci* 41(3):527-529.

8. REFERENCES

- Kimura ET, Ebert DM, Dodge PW. 1971. Acute toxicity and limits of solvent residue for sixteen organic solvents. *Toxicol Appl Pharmacol* 19(4):699-704. [https://doi.org/10.1016/0041-008x\(71\)90301-2](https://doi.org/10.1016/0041-008x(71)90301-2).
- King RB. 1993. Topical aspirin in chloroform and the relief of pain due to herpes zoster and postherpetic neuralgia. *Arch Neural* 50:1046-1053.
- King WD, Dodds L, Allen AC. 2000. Relation between stillbirth and specific chlorination by-products in public water supplies. *Environ Health Perspect* 108(9):883-886. <https://doi.org/10.1289/ehp.00108883>.
- King WD, Dodds L, Armson BA, et al. 2004. Exposure assessment in epidemiologic studies of adverse pregnancy outcomes and disinfection byproducts. *J Expo Anal Environ Epidemiol* 14(6):466-472. <https://doi.org/10.1038/sj.jea.7500345>.
- Kirkland DJ, Smith KL, Van ANJ. 1981. Failure of chloroform to induce chromosome damage or sister-chromatid exchanges in cultured human lymphocytes and failure to induce reversion in *Escherichia coli*. *Food Cosmet Toxicol* 19:651-656.
- Klaunig JE, Ruth RJ, Pereira MA. 1986. Carcinogenicity of chlorinated methane and ethane compounds administered in drinking water to mice. *Environ Health Perspect* 69:89-95.
- Kohr RM. 1990. Suicide by chloroform ingestion following self-mutilation. *Am J Forensic Med Pathol* 11(4):324-328. <https://doi.org/10.1097/00000433-199012000-00012>.
- Kramer MD, Lynch CF, Isacson P, et al. 1992. The association of waterborne chloroform with intrauterine growth retardation. *Epidemiology* 3(5):407-413. <https://doi.org/10.1097/00001648-199209000-00005>.
- Kundu B, Richardson SD, Granville CA, et al. 2004. Comparative mutagenicity of halomethanes and halonitromethanes in *Salmonella* TA100: structure-activity analysis and mutation spectra. *Mutat Res* 554(1-2):335-350. <https://doi.org/10.1016/j.mrfmmm.2004.05.015>.
- Kutob SD, Plaa GL. 1962. The effect of acute ethanol intoxication on chloroform-induced liver damage. *J Pharmacol Exp Ther* 135:245-251.
- La Merrill M, Birnbaum LS. 2011. Childhood obesity and environmental chemicals. *Mt Sinai J Med* 78(1):22-48. <https://doi.org/10.1002/msj.20229>.
- Land PC, Owen EL, Linde HW. 1981. Morphologic changes in mouse spermatozoa after exposure to inhalation anesthetics during early spermatogenesis. *Anesthesiology* 54:53-56. <https://doi.org/10.1097/00000542-198101000-00010>.
- Landauer MR, Lynch MR, Balster RL, et al. 1982. Trichloromethane-induced taste aversions in mice. *Neurobehav Toxicol Teratol* 4(3):305-309.
- Landi S, Naccarati A, Ross MK, et al. 2003. Induction of DNA strand breaks by trihalomethanes in primary human lung epithelial cells. *Mutat Res* 538(1-2):41-50. [https://doi.org/10.1016/s1383-5718\(03\)00086-x](https://doi.org/10.1016/s1383-5718(03)00086-x).
- LaRegina J, Bozzelli JW, Harkov R, et al. 1986. Volatility organic compounds at hazardous waste sites and a sanitary landfill in New Jersey. An up-to-date review of the present situation. *Environ Prog* 5:18-27.
- Larson JL, Wolf DC, Butterworth BE. 1993. Acute hepatotoxic and nephrotoxic effects of chloroform in male F-344 rats and female B6C3F1 mice. *Fundam Appl Toxicol* 20(3):302-315. <https://doi.org/10.1006/faat.1993.1040>.
- Larson JL, Sprankle CS, Butterworth BE. 1994a. Lack of chloroform-induced DNA repair in vitro and in vivo in hepatocytes of female B6C3F1 mice. *Environ Mol Mutagen* 23(2):132-136.
- Larson JL, Wolf DC, Butterworth BE. 1994b. Induced cytotoxicity and cell proliferation in the hepatocarcinogenicity of chloroform in female B6C3F1 mice: comparison of administration by gavage in corn oil vs ad libitum in drinking water. *Fundam Appl Toxicol* 22(1):90-102. <https://doi.org/10.1006/faat.1994.1012>.
- Larson JL, Wolf DC, Morgan KT, et al. 1994c. The toxicity of 1-week exposures to inhaled chloroform in female B6C3F1 mice and male F-344 rats. *Fundam Appl Toxicol* 22(3):431-446. <https://doi.org/10.1006/faat.1994.1049>.

8. REFERENCES

- Larson JL, Wolf DC, Butterworth BE. 1994d. Induced cytolethality and regenerative cell proliferation in the livers and kidneys of male B6C3F1 mice given chloroform by gavage. *Fundam Appl Toxicol* 23(4):537-543. <https://doi.org/10.1006/faat.1994.1138>.
- Larson JL, Wolf DC, Butterworth BE. 1995a. Induced regenerative cell proliferation in livers and kidneys of male F-344 rats given chloroform in corn oil by gavage or ad libitum in drinking water. *Toxicology* 95(1-3):73-86. [https://doi.org/10.1016/0300-483x\(94\)02886-y](https://doi.org/10.1016/0300-483x(94)02886-y).
- Larson JL, Wolf DC, Méry S, et al. 1995b. Toxicity and cell proliferation in the liver, kidneys and nasal passages of female F-344 rats, induced by chloroform administered by gavage. *Food Chem Toxicol* 33(6):443-456. [https://doi.org/10.1016/0278-6915\(95\)00013-r](https://doi.org/10.1016/0278-6915(95)00013-r).
- Larson JL, Templin MV, Wolf DC, et al. 1996. A 90-day chloroform inhalation study in female and male B6C3F1 mice: implications for cancer risk assessment. *Fundam Appl Toxicol* 30(1):118-137. <https://doi.org/10.1006/faat.1996.0049>.
- Laternus F, Lauritsen FR, Grøn C. 2000. Chloroform in a pristine aquifer system: Toward an evidence of biogenic origin. *Water Resour Res* 36(10):2999-3009. <https://doi.org/10.1029/2000wr900194>.
- Laternus F, Haselmann KF, Borch T, et al. 2002. Terrestrial natural sources of trichloromethane (chloroform, CHCl₃) - an overview. *Biogeochemistry* 60:121-139.
- Le Curieux F, Gauthier L, Erb F, et al. 1995. Use of the SOS chromotest, the Ames-fluctuation test and the newt micronucleus test to study the genotoxicity of four trihalomethanes. *Mutagenesis* 10(4):333-341. <https://doi.org/10.1093/mutage/10.4.333>.
- Lee H, Bae HC, Kim J, et al. 2015. Chloroform upregulates early growth response-1-dependent thymic stromal lymphopoietin expression via the JNK and ERK pathways in human keratinocytes. *Int J Dermatol* 54(12):e521-526. <https://doi.org/10.1111/ijd.12946>.
- Lehmann KB, Flury FF. 1943. Chlorinated hydrocarbons. In: Lehman KB, Flury FF, eds. *Toxicology and hygiene of industrial solvents*. Baltimore, MD: Williams and Wilkins, 138-145, 191-196.
- Levallois P, Gingras S, Marcoux S, et al. 2012. Maternal exposure to drinking-water chlorination by-products and small-for-gestational-age neonates. *Epidemiology* 23(2):267-276. <https://doi.org/10.1097/EDE.0b013e3182468569>.
- Lévesque B, Ayotte P, LeBlanc A, et al. 1994. Evaluation of dermal and respiratory chloroform exposure in humans. *Environ Health Perspect* 102(12):1082-1087.
- Lévesque B, Ayotte P, Tardif R, et al. 2000. Evaluation of the health risk associated with exposure to chloroform in indoor swimming pools. *J Toxicol Environ Health* 61(4):225-243. <https://doi.org/10.1080/00984100050136553>.
- Li LH, Jiang XZ, Liang YX, et al. 1993. Studies on the toxicity and maximum allowable concentration of chloroform. *Biomed Environ Sci* 6(2):179-186.
- Liang JC, Hsu TC, Henry JE. 1983. Cytogenetic assays for mitotic poisons. The grasshopper embryo system for volatile liquids. *Mutat Res* 113:467-479.
- Liao KH, Tan YM, Conolly RB, et al. 2007. Bayesian estimation of pharmacokinetic and pharmacodynamic parameters in a mode-of-action-based cancer risk assessment for chloroform. *Risk Anal* 27(6):1535-1551. <https://doi.org/10.1111/j.1539-6924.2007.00987.x>.
- Lilly PD, Ross TM, Pegram RA. 1997. Trihalomethane comparative toxicity: acute renal and hepatic toxicity of chloroform and bromodichloromethane following aqueous gavage. *Fundam Appl Toxicol* 40(1):101-110. <https://doi.org/10.1006/faat.1997.2372>.
- Lim GE, Stals SI, Petrik JJ, et al. 2004. The effects of in utero and lactational exposure to chloroform on postnatal growth and glucose tolerance in male Wistar rats. *Endocrine* 25(3):223-228. <https://doi.org/10.1385/endo:25:3:223>.
- Lin CH, Du CL, Chan CC, et al. 2005. Saved by a material safety data sheet. *Occup Med* 55(8):635-637. <https://doi.org/10.1093/occmed/kqi146>.
- Lin N, Rosemberg MA, Li W, et al. 2022. Occupational exposure and health risks of volatile organic compounds of hotel housekeepers: Field measurements of exposure and health risks. *Indoor Air* 31(1):26-39. <https://doi.org/10.1111/ina.12709>.

8. REFERENCES

- Lin N, Ding N, Meza-Wilson E, et al. 2023. Volatile organic compounds in disposable diapers and baby wipes in the US: A survey of products and health risks. *Environ Sci Technol* 57(37):13732-13743. <https://doi.org/10.1021/acs.est.3c02862>.
- Lind RC, Gandolfi AJ. 1997. Late dimethyl sulfoxide administration provides a protective action against chemically induced injury in both the liver and the kidney. *Toxicol Appl Pharmacol* 142(1):201-207. <https://doi.org/10.1006/taap.1996.8009>.
- Lind RC, Begay CK, Gandolfi AJ. 2000. Hepatoprotection by dimethyl sulfoxide. III. Role of inhibition of the bioactivation and covalent bonding of chloroform. *Toxicol Appl Pharmacol* 166(2):145-150. <https://doi.org/10.1006/taap.2000.8949>.
- Lionte C. 2010. Lethal complications after poisoning with chloroform-case report and literature review. *Hum Exp Toxicol* 29(7):615-622. <https://doi.org/10.1177/0960327109357142>.
- Lipscomb JC, Barton HA, Tornero-Velez R, et al. 2004. The metabolic rate constants and specific activity of human and rat hepatic cytochrome P-450 2E1 toward toluene and chloroform. *J Toxicol Environ Health* 67(7):537-553. <https://doi.org/10.1080/15287390490425588>.
- Lipsky MM, Skinner M, O'Connell C. 1993. Effects of chloroform and bromodichloromethane on DNA synthesis in male F344 rat kidney. *Environ Health Perspect* 101(Suppl 5):249-252. <https://doi.org/10.1289/ehp.93101s5249>.
- Liu S, Yao Y, Lu S, et al. 2013. The role of renal proximal tubule P450 enzymes in chloroform-induced nephrotoxicity: utility of renal specific P450 reductase knockout mouse models. *Toxicol Appl Pharmacol* 272(1):230-237. <https://doi.org/10.1016/j.taap.2013.05.022>.
- Liu C, Wang YX, Chen YJ, et al. 2020. Blood and urinary biomarkers of prenatal exposure to disinfection byproducts and oxidative stress: A repeated measurement analysis. *Environ Int* 137:105518. <https://doi.org/10.1016/j.envint.2020.105518>.
- Liu C, Sun Y, Mustieles V, et al. 2021. Prenatal exposure to disinfection byproducts and intrauterine growth in a Chinese cohort. *Environ Sci Technol* 55(23):16011-16022. <https://doi.org/10.1021/acs.est.1c04926>.
- Liu W, Cao S, Ma J, et al. 2023a. Exposures to volatile organic compounds, serum vitamin D, and kidney function: association and interaction assessment in the US adult population. *Environ Sci Pollut Res Int* 30(3):7605-7616. <https://doi.org/10.1007/s11356-022-22637-1>.
- Liu C, Chen YJ, Sun B, et al. 2023b. Blood trihalomethane concentrations in relation to sperm mitochondrial DNA copy number and telomere length among 958 healthy men. *Environ Res* 216(Pt 4):114737. <https://doi.org/10.1016/j.envres.2022.114737>.
- Long JL, Stensel HD, Ferguson JF, et al. 1993. Anaerobic and aerobic treatment of chlorinated aliphatic compounds. *J Environ Eng* 119(2):300-320. [https://doi.org/10.1061/\(asce\)0733-9372\(1993\)119:2\(300\)](https://doi.org/10.1061/(asce)0733-9372(1993)119:2(300)).
- Longo V, Ingelman-Sundberg M. 1993. Acetone-dependent regulation of cytochromes P4502E1 and P4502B1 in rat nasal mucosa. *Biochem Pharmacol* 46(11):1945-1951. [https://doi.org/10.1016/0006-2952\(93\)90635-a](https://doi.org/10.1016/0006-2952(93)90635-a).
- Lopes TJ, Bender DA. 1998. Nonpoint sources of volatile organic compounds in urban areas-relative importance of land surfaces and air. *Environ Pollut* 101(2):221-230. [https://doi.org/10.1016/s0269-7491\(98\)00048-7](https://doi.org/10.1016/s0269-7491(98)00048-7).
- Luke NS, Sams R, DeVito MJ, et al. 2010. Development of a quantitative model incorporating key events in a hepatotoxic mode of action to predict tumor incidence. *Toxicol Sci* 115(1):253-266. <https://doi.org/10.1093/toxsci/kfq021>.
- Lundberg I, Ekdahl M, Kronevi T, et al. 1986. Relative hepatotoxicity of some industrial solvents after intraperitoneal injection or inhalation exposure in rats. *Environ Res* 40(2):411-420. [https://doi.org/10.1016/s0013-9351\(86\)80116-5](https://doi.org/10.1016/s0013-9351(86)80116-5).
- Lunt RL. 1953. Delayed chloroform poisoning in obstetric practice. *Br Med J* 1:489-490.
- Lurker PA, Clark CS, Elia VJ, et al. 1983. Worker exposure to chlorinated organic compounds from the activated-sludge wastewater treatment process. *Am Ind Hyg Assoc J* 44:109-112.

8. REFERENCES

- Luzhetskiiy KP, Shur PZ, Ustinova OY, et al. 2015. Individual risk assessment of metabolic disorders in children at exposure to chloroform in drinking water. *Health Risk Anal* 4(28-35):28-33.
- Lyman WJ, Reehl WF, Rosenblatt DH. 1982. Chloroform. In: *Handbook of chemical property estimation methods. Environmental behavior of organic compounds*. New York, NY: McGraw-Hill Book Co, 15.19-15.31.
- Lynberg M, Nuckols JR, Langlois P, et al. 2001. Assessing exposure to disinfection by-products in women of reproductive age living in Corpus Christi, Texas, and Cobb County, Georgia: descriptive results and methods. *Environ Health Perspect* 109(6):597-604. <https://doi.org/10.1289/ehp.01109597>.
- Lyons MA, Yang RS, Mayeno AN, et al. 2008. Computational toxicology of chloroform: reverse dosimetry using Bayesian inference, Markov chain Monte Carlo simulation, and human biomonitoring data. *Environ Health Perspect* 116(8):1040-1046. <https://doi.org/10.1289/ehp.11079>.
- Mabey W, Mill T. 1978. Critical review of hydrolysis of organic compounds in water under environmental conditions. *J Phys Chem Ref Data* 7:383-415.
- Mahle DA, Gearhart JM, Grigsby CC, et al. 2007. Age-dependent partition coefficients for a mixture of volatile organic solvents in Sprague-Dawley rats and humans. *J Toxicol Environ Health A* 70(20):1745-1751. <https://doi.org/10.1080/15287390701458991>.
- Mailhot H. 1987. Prediction of algal bioaccumulation and uptake of nine organic compounds by ten physicochemical properties. *Environ Sci Technol* 21:1009-1013.
- Mally A, Chipman JK. 2002. Non-genotoxic carcinogens: early effects on gap junctions, cell proliferation and apoptosis in the rat. *Toxicology* 180(3):233-248. [https://doi.org/10.1016/s0300-483x\(02\)00393-1](https://doi.org/10.1016/s0300-483x(02)00393-1).
- Malten KE, Spruit D, Boemaars HGM, et al. 1968. Horny layer injury by solvents. *Berufsdermatosen* 16:135-147.
- Masuda Y, Nakayama N. 1982. Protective effect of diethyldithiocarbamate and carbon disulfide against liver injury induced by various hepatotoxic agents. *Biochem Pharmacol* 31:2713-2725.
- Masuda Y, Nakayama N. 1983. Protective action of diethyldithiocarbamate and carbon disulfide against renal injury induced by chloroform in mice. *Biochem Pharmacol* 32(21):3127-3135.
- McCarthy MC, Hafner HR, Montzka SA. 2006. Background concentrations of 18 air toxics for North America. *J Air Waste Manag Assoc* 56(1):3-11. <https://doi.org/10.1080/10473289.2006.10464436>.
- McCarty LP, Malek RS, Larsen ER. 1979. The effects of deuteration on the metabolism of halogenated anesthetics in the rat. *Anesthesiology* 51:106-110.
- McDonald MN, Vire DE. 1992. Chloroform in the endodontic operator. *J Endodontics* 18(6):301-303.
- McDorman KS, Hooth MJ, Starr TB, et al. 2003a. Analysis of preneoplastic and neoplastic renal lesions in Tsc2 mutant Long-Evans (Eker) rats following exposure to a mixture of drinking water disinfection by-products. *Toxicology* 187(1):1-12. [https://doi.org/10.1016/s0300-483x\(03\)00004-0](https://doi.org/10.1016/s0300-483x(03)00004-0).
- McDorman KS, Chandra S, Hooth MJ, et al. 2003b. Induction of transitional cell hyperplasia in the urinary bladder and aberrant crypt foci in the colon of rats treated with individual and a mixture of drinking water disinfection by-products. *Toxicol Pathol* 31(2):235-242. <https://doi.org/10.1080/01926230390183733>.
- McDorman KS, Pachkowski BF, Nakamura J, et al. 2005. Oxidative DNA damage from potassium bromate exposure in Long-Evans rats is not enhanced by a mixture of drinking water disinfection by-products. *Chem Biol Interact* 152(2-3):107-117. <https://doi.org/10.1016/j.cbi.2005.02.003>.
- McHugh T, Beckley L, Sullivan T, et al. 2017. Evidence of a sewer vapor transport pathway at the USEPA vapor intrusion research duplex. *Sci Total Environ* 598:772-779. <https://doi.org/10.1016/j.scitotenv.2017.04.135>.
- McKone TE. 1993. Linking a PBPK model for chloroform with measured breath concentrations in showers: implications for dermal exposure models. *J Expo Anal Environ Epidemiol* 3(3):339-365.
- McLean AEM. 1970. The effect of protein deficiency and microsomal enzyme induction by DDT and phenobarbitone on the acute toxicity of chloroform and a pyrrolizidine alkaloid, retrorsine. *Br J Exp Pathol* 51:317-321.

8. REFERENCES

- McMartin DN, O'Connor JA, Kaminsky LS. 1981. Effects of differential changes in rat hepatic and renal cytochrome P-450 concentrations on hepatotoxicity and nephrotoxicity of chloroform. *Res Commun Chem Pathol Pharmacol* 31(1):99-110.
- Medgyesi DN, Trabert B, Sampson J, et al. 2022. Drinking water disinfection byproducts, ingested nitrate, and risk of endometrial cancer in postmenopausal women. *Environ Health Perspect* 130(5):57012. <https://doi.org/10.1289/EHP10207>.
- Meek ME, Beauchamp R, Long G, et al. 2002. Chloroform: exposure estimation, hazard characterization, and exposure-response analysis. *J Toxicol Environ Health* 5(3):283-334. <https://doi.org/10.1080/10937400290070080>.
- Meek ME, Bucher JR, Cohen SM, et al. 2003. A framework for human relevance analysis of information on carcinogenic modes of action. *Crit Rev Toxicol* 33(6):591-653. <https://doi.org/10.1080/713608373>.
- Meenakshisundaram R, Joseph JV, Perumal P, et al. 2021. A chemist with a strange etiology of rhabdomyolysis: A case report of a rare toxicological emergency. *Clin Pract Cases Emerg Med* 5(4):432-435. <https://doi.org/10.5811/cpcem.2021.7.52923>.
- Mehendale HM. 1991. Role of hepatocellular regeneration and hepatolobular healing in the final outcome of liver injury. A two-stage model of toxicity. *Biochem Pharmacol* 42(6):1155-1162. [https://doi.org/10.1016/0006-2952\(91\)90249-5](https://doi.org/10.1016/0006-2952(91)90249-5).
- Mehendale HM. 2005. Tissue repair: an important determinant of final outcome of toxicant-induced injury. *Toxicol Pathol* 33(1):41-51. <https://doi.org/10.1080/01926230590881808>.
- Mehendale HM, Purushotham KR, Lockard VG. 1989. The time course of liver injury and [3H]thymidine incorporation in chlordecone-potentiated CHCl₃ hepatotoxicity. *Exp Mol Pathol* 51(1):31-47. [https://doi.org/10.1016/0014-4800\(89\)90005-1](https://doi.org/10.1016/0014-4800(89)90005-1).
- Melnick RL, Kohn MC, Dunnick JK, et al. 1998. Regenerative hyperplasia is not required for liver tumor induction in female B6C3F1 mice exposed to trihalomethanes. *Toxicol Appl Pharmacol* 148(1):137-147. <https://doi.org/10.1006/taap.1997.8302>.
- Mery S, Larson JL, Butterworth BE, et al. 1994. Nasal toxicity of chloroform in male F-344 rats and female B6C3F1 mice following a 1-week inhalation exposure. *Toxicol Appl Pharmacol* 125(2):214-227. <https://doi.org/10.1006/taap.1994.1067>.
- MHLW. 1994a. [Report of an inhalation-induced carcinogenicity study of chloroform in rats and mice]. Japan: Ministry of Health, Labor and Welfare. Study No. 0115, 0116. https://anzeninfo.mhlw.go.jp/user/anzen/kag/pdf/gan/Chloroform_Cancer_MAIN.pdf. May 6, 2024. (Japanese)
- MHLW. 1994b. [Report of an inhalation-induced carcinogenicity study of chloroform in rats and mice]: Appendix (J1~R2): [Carcinogenicity test] No. 0115; 0116. Japan: Ministry of Health, Labor and Welfare. Study No. 0115, 0116. https://anzeninfo.mhlw.go.jp/user/anzen/kag/pdf/gan/Chloroform_Cancer_APPENDIX_3.pdf. May 6, 2024. (Japanese)
- Min JY, Min KB. 2016. Blood trihalomethane levels and the risk of total cancer mortality in US adults. *Environ Pollut* 212:90-96. <https://doi.org/10.1016/j.envpol.2016.01.047>.
- Minet-Quinard R, Goncalves-Mendes N, Gallot D, et al. 2023. Volatile organic compounds detected in amniotic fluid of women during normal pregnancy. *Expo Health:online*. <https://doi.org/10.1007/s12403-023-00617-1>.
- Mink FL, Brown TJ, Rickabaugh J. 1986. Absorption, distribution and excretion of C-trihalomethanes in mice and rats. *Bull Environ Contam Toxicol* 37:752-758.
- Minor EA, Newman MS, Kupec JT. 2018. Chronic, recreational chloroform-induced liver injury. *Case Rep Hepatol* 2018:1619546. <https://doi.org/10.1155/2018/1619546>.
- Mirsalis JC, Tyson CK, Butterworth BE. 1982. Detection of genotoxic carcinogens in the in vivo-in vitro hepatocyte DNA repair assay. *Environ Mutagen* 4:553-562.
- Mitchell AD, Myhr BC, Rudd CJ, et al. 1988. Evaluation of the L5178Y mouse lymphoma cell system: Methods used and chemicals evaluated. *Environ Mol Mutagen* 12(Suppl 13):1-18.

8. REFERENCES

- Miyagawa M, Katsuta O, Chida T, et al. 1998. Occurrence of toxicity and cell proliferation after a single gavage administration of chloroform to male F344 rats. *J Toxicol Sci* 23(3):205-211. https://doi.org/10.2131/jts.23.3_205.
- Moore DH, Chasseaud LF, Majeed SK, et al. 1982. The effect of dose and vehicle on early tissue damage and regenerative activity after chloroform administration to mice. *Food Chem Toxicol* 20(6):951-954. [https://doi.org/10.1016/s0015-6264\(82\)80235-6](https://doi.org/10.1016/s0015-6264(82)80235-6).
- Morimoto K, Koizumi A. 1983. Trihalomethanes induce sister chromatid exchanges in human lymphocytes in vitro and mouse bone marrow cells in vivo. *Environ Res* 32:72-79.
- Morris JB, Hassett DN, Blanchard KT. 1993. A physiologically based pharmacokinetic model for nasal uptake and metabolism of nonreactive vapors. *Toxicol Appl Pharmacol* 123(1):120-129. <https://doi.org/10.1006/taap.1993.1228>.
- Mostafa AA, Zharan FM, Guirgis AA, et al. 2009. Hypomethylation and histological changes induced by chloroform administered by oral gavages in corn oil to mice. *Aust J Basic Appl Sci* 3(3):1569-1576.
- Müller SP, Wolna P, Wünsch U, et al. 1997. Cardiotoxicity of chlorodibromomethane and trichloromethane in rats and isolated rat cardiac myocytes. *Arch Toxicol* 71(12):766-777. <https://doi.org/10.1007/s002040050459>.
- Mumtaz MM, Ray M, Crowell SR, et al. 2012a. Translational research to develop a human PBPK models tool kit-volatile organic compounds (VOCs). *J Toxicol Environ Health A* 75(1):6-24. <https://doi.org/10.1080/15287394.2012.625546>.
- Mumtaz M, Fisher J, Blount B, et al. 2012b. Application of physiologically based pharmacokinetic models in chemical risk assessment. *J Toxicol* 2012:904603. <https://doi.org/10.1155/2012/904603>.
- Munson AE, Sain LE, Sanders VM, et al. 1982. Toxicology of organic drinking water contaminants: Trichloromethane, bromodichloromethane, dibromochloromethane and tribromomethane. *Environ Health Perspect* 46:117-126. <https://doi.org/10.1289/ehp.8246117>.
- Murray FJ, Schwetz BA, McBride JB, et al. 1979. Toxicity of inhaled chloroform in pregnant mice and their offspring. *Toxicol Appl Pharmacol* 50(3):515-522. [https://doi.org/10.1016/0041-008X\(79\)90406-X](https://doi.org/10.1016/0041-008X(79)90406-X).
- Myhr BC, Caspary WJ. 1988. Evaluation of the L5178Y mouse lymphoma cell mutagenesis assay: intralaboratory results for sixty-three coded chemicals tested at Litton Bionetics, Inc. *Environ Mol Mutagen* 12(Suppl 13):103-194. <https://doi.org/10.1002/em.2860120505>.
- Nagano K, Kano H, Arito H, et al. 2006. Enhancement of renal carcinogenicity by combined inhalation and oral exposures to chloroform in male rats. *J Toxicol Environ Health* 69(20):1827-1842. <https://doi.org/10.1080/15287390600630146>.
- Nakagawa T, Hamanaka T, Nishimura S, et al. 2000. The quantitative analysis of three action modes of volatile anesthetics on purple membrane. *Biochimica et Biophysica Acta* 1468(1-2):139-149. [https://doi.org/10.1016/s0005-2736\(00\)00253-4](https://doi.org/10.1016/s0005-2736(00)00253-4).
- Nakai JS, Stathopoulos PB, Campbell GL, et al. 1999. Penetration of chloroform, trichloroethylene, and tetrachloroethylene through human skin. *J Toxicol Environ Health* 58(3):157-170. <https://doi.org/10.1080/009841099157368>.
- Namkung E, Rittmann BE. 1987. Estimating volatile organic compound emissions from publicly owned treatment works. *J Water Pollut Control Fed* 59:670-678.
- NAS/NRC. 2006. Human biomonitoring for environmental chemicals. Washington, DC: The National Academies Press, National Research Council. <https://doi.org/10.17226/11700>.
- Nashelsky MB, Dix JD, Adelstein EH. 1995. Homicide facilitated by inhalation of chloroform. *J Forensic Sci* 40(1):134-138.
- NCI. 1976. Report on carcinogenesis bioassay of chloroform. Bethesda, MD: National Cancer Institute. PB264018. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB264018.xhtml>. February 21, 2023.

8. REFERENCES

- Neta G, Stewart PA, Rajaraman P, et al. 2012. Occupational exposure to chlorinated solvents and risks of glioma and meningioma in adults. *Occup Environ Med* 69(11):793-801. <https://doi.org/10.1136/oemed-2012-100742>.
- Nicholson BC, Maguire BP, Bursill DB. 1984. Henry's law constants for the trihalomethanes: Effects of water composition and temperature. *Environ Sci Technol* 28:518-521.
- Nieuwenhuijsen MJ, Toledano MB, Eaton NE, et al. 2000. Chlorination disinfection byproducts in water and their association with adverse reproductive outcomes: a review. *Occup Environ Med* 57(2):73-85. <https://doi.org/10.1136/oem.57.2.73>.
- NIOSH. 2018. Method 3900: Volatile organic compounds, C1 to C10, canister method. NIOSH manual of analytical methods (NMAM). National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/nmam/pdf/3900.pdf>. January 26, 2023.
- NIOSH. 2019. Chloroform. NIOSH pocket guide to chemical hazards. National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/npg/npgd0127.html>. May 26, 2021.
- NITE. 1980. Chloroform - bioaccumulation: aquatic/sediment. Japanese Chemicals and Collaborative Knowledge Database. Japanese National Institute of Technology and Evaluation. https://www.nite.go.jp/chem/jcheck/template.action?ano=27654&mno=2-0037&cno=67-66-3&request_locale=en. January 17, 2023.
- NITE. 2010. Chloroform - biodegradation in water: screening tests. Japanese Chemicals and Collaborative Knowledge Database. Japanese National Institute of Technology and Evaluation. https://www.nite.go.jp/chem/jcheck/template.action?ano=331&mno=2-0037&cno=67-66-3&request_locale=en. January 17, 2023.
- Nitter TB, Svendsen KVH. 2019. Modelling the concentration of chloroform in the air of a Norwegian swimming pool facility-A repeated measures study. *Sci Total Environ* 664:1039-1044. <https://doi.org/10.1016/j.scitotenv.2019.02.113>.
- NLM. 2023. Chloroform. PubChem. National Library of Medicine. <https://pubchem.ncbi.nlm.nih.gov/compound/6212>. January 16, 2023.
- Norman AM, Kissel JC, Shirai JH, et al. 2008. Effect of PBPK model structure on interpretation of in vivo human aqueous dermal exposure trials. *Toxicol Sci* 104(1):210-217. <https://doi.org/10.1093/toxsci/kfn070>.
- NTP. 1987a. Cytogenetic study of chloroform in rodent chromosome aberrations test. National Toxicology Program. 002-01867-0013-0000-8; 142011_CA. <https://cebs.niehs.nih.gov/cebs/genetox/002-01867-0013-0000-8/>. March 22, 2023.
- NTP. 1987b. Cytogenetic study of chloroform in rodent sister chromatid exchange test. National Toxicology Program. 002-01867-0002-0000-7; 142011_SCE. <https://cebs.niehs.nih.gov/cebs/genetox/002-01867-0012-0000-7/>. March 22, 2023.
- NTP. 1988a. Chloroform: Reproduction and fertility assessment in CD-1 mice when administered by gavage. Research Triangle Park, NC: National Toxicology Program. PB89148639. NTP-86-FACB-052. <https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB89148639.xhtml>. January 24, 2023.
- NTP. 1988b. Cytogenetic study of chloroform in Chinese hamster ovary cell chromosome aberrations test. National Toxicology Program. 002-01867-0002-0000-6; 564651_CA. <https://cebs.niehs.nih.gov/cebs/genetox/002-01867-0002-0000-6/>. March 22, 2023.
- NTP. 1988c. Cytogenetic study of chloroform in Chinese hamster ovary cell sister chromatid exchange test. National Toxicology Program. 002-01867-0001-0000-5; 564651_SCE. <https://cebs.niehs.nih.gov/cebs/genetox/002-01867-0001-0000-5/>. March 22, 2023.
- NTP. 2013. Draft OHAT approach for systematic review and evidence integration for literature-based health assessments – February 2013. National Toxicology Program. https://ntp.niehs.nih.gov/ntp/ohat/evaluationprocess/draftohatapproach_february2013.pdf. February 20, 2023.
- NTP. 2015. OHAT risk of bias rating tool for human and animal studies. National Toxicology Program. https://ntp.niehs.nih.gov/ntp/ohat/pubs/riskofbiastool_508.pdf. March 19, 2019.

8. REFERENCES

- NTP. 2016. Substances listed in the fourteenth report on carcinogens. National Toxicology Program. https://ntp.niehs.nih.gov/ntp/roc/content/listed_substances_508.pdf. February 20, 2023.
- NTP. 2018a. Genetic toxicology - micronucleus; G04: In vivo micronucleus summary data; Test compound: chloroform. National Toxicology Program. https://cebs.niehs.nih.gov/cebs/get_file/accno/10316_13723/file/142011_G04_In_Vivo_Micronucleus_Summary_Data.pdf. March 22, 2023.
- NTP. 2018b. Genetic toxicology - bacterial mutagenicity; G06: Ames summary data; Test compound: chloroform. National Toxicology Program. https://cebs.niehs.nih.gov/cebs/get_file/accno/12588_15995/file/749633_G06_Ames_Summary_Data.pdf. March 22, 2023.
- NTP. 2021. Chloroform. 15th Report on carcinogens. National Toxicology Program. <https://ntp.niehs.nih.gov/ntp/roc/content/profiles/chloroform.pdf>. January 23, 2023.
- Odabasi M. 2008. Halogenated volatile organic compounds from the use of chlorine-bleach-containing household products. *Environ Sci Technol* 42(5):1445-1451. <https://doi.org/10.1021/es702355u>.
- Ohligschläger A, Menzel K, Ten Kate A, et al. 2019. Chloromethanes. In: *Ullmann's encyclopedia of industrial chemistry*. Weinheim, Germany: Wiley-VCH Verlag GmbH & Co. KGaA, 1-31. https://doi.org/10.1002/14356007.a06_233.pub4.
- Olson DA, Corsi RL. 2004. In-home formation and emissions of trihalomethanes: the role of residential dishwashers. *J Expo Anal Environ Epidemiol* 14(2):109-119. <https://doi.org/10.1038/sj.jea.7500295>.
- OSHA. 2022a. Occupational safety and health standards. Subpart Z - Toxic and hazardous substances. Air contaminants. Table Z-2. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000. <https://www.govinfo.gov/content/pkg/CFR-2022-title29-vol6/pdf/CFR-2022-title29-vol6-sec1910-1000.pdf>. May 3, 2024.
- OSHA. 2022b. Occupational safety and health standards for shipyard employment. Subpart Z - Toxic and hazardous substances. Air contaminants. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1915.1000. <https://www.govinfo.gov/content/pkg/CFR-2022-title29-vol7/pdf/CFR-2022-title29-vol7-sec1915-1000.pdf>. May 3, 2024.
- OSHA. 2022c. Safety and health regulations for construction. Subpart D - Occupational health and environment controls. Gases, vapors, fumes, dusts, and mists. Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1926.55. <https://www.govinfo.gov/content/pkg/CFR-2022-title29-vol8/pdf/CFR-2022-title29-vol8-sec1926-55.pdf>. May 3, 2024.
- Paasivirta J, Knuutinen J, Knuutila M, et al. 1988. Lignin and organic chlorine compounds in lake water and the role of the chlorobleaching effluents. *Chemosphere* 17:147-158.
- Paixao P, Aniceto N, Gouveia LF, et al. 2013. Tissue-to-blood distribution coefficients in the rat: utility for estimation of the volume of distribution in man. *Eur J Pharm Sci* 50(3-4):526-543. <https://doi.org/10.1016/j.ejps.2013.08.020>.
- Palmer AK, Street AE, Roe JC, et al. 1979. Safety evaluation of toothpaste containing chloroform. II. Long term studies in rats. *J Environ Pathol Toxicol* 2:821-833.
- Pankow D, Damme B. 1999. Carbon monoxide generation from trihalomethane metabolism in rats. *Indoor Built Environ* 8(3):203-208. <https://doi.org/10.1177/1420326x9900800314>.
- Park KS, Sorensen DL, Sims JL, et al. 1988. Volatilization of wastewater trace organics in slow rate land treatment systems. *Haz Waste Haz Mat* 5(3):219-229.
- Pavel MA, Petersen EN, Wang H, et al. 2020. Studies on the mechanism of general anesthesia. *Proc Natl Acad Sci U S A* 117(24):13757-13766. <https://doi.org/10.1073/pnas.2004259117>.
- Pegram RA, Andersen ME, Warren SH, et al. 1997. Glutathione S-transferase-mediated mutagenicity of trihalomethanes in *Salmonella typhimurium*: contrasting results with bromodichloromethane and chloroform. *Toxicol Appl Pharmacol* 144(1):183-188. <https://doi.org/10.1006/taap.1997.8123>.

8. REFERENCES

- Pelekis M, Gephart LA, Lerman SE. 2001. Physiological-model-based derivation of the adult and child pharmacokinetic intraspecies uncertainty factors for volatile organic compounds. *Regul Toxicol Pharmacol* 33(1):12-20. <https://doi.org/10.1006/rtph.2000.1436>.
- Peoples AJ, Pfaffenberger CD, Shafik TM, et al. 1979. Determination of volatile purgeable halogenated hydrocarbons in human adipose tissue and blood serum. *Bull Environ Contam Toxicol* 23:244-249.
- Pereira MA. 1994. Route of administration determines whether chloroform enhances or inhibits cell proliferation in the liver of B6C3F1 mice. *Fundam Appl Toxicol* 23(1):87-92.
- Pereira MA, Grothaus M. 1997. Chloroform in drinking water prevents hepatic cell proliferation induced by chloroform administered by gavage in corn oil to mice. *Fundam Appl Toxicol* 37(1):82-87. <https://doi.org/10.1006/faat.1997.2308>.
- Pereira MA, Kramer PM, Conran PB, et al. 2001. Effect of chloroform on dichloroacetic acid and trichloroacetic acid-induced hypomethylation and expression of the c-myc gene and on their promotion of liver and kidney tumors in mice. *Carcinogenesis* 22(9):1511-1519. <https://doi.org/10.1093/carcin/22.9.1511>.
- Perocco P, Prodi G. 1981. DNA damage by haloalkanes in human lymphocytes cultured in vitro. *Cancer Lett* 13:213-218.
- Pfaffenberger CD, Peoples AJ, Enos HF. 1980. Distribution of volatile halogenated organic compounds between rat blood serum and adipose tissue. *Int J Environ Anal Chem* 8:55-65.
- Philip BK, Anand SS, Palkar PS, et al. 2006. Subchronic chloroform priming protects mice from a subsequently administered lethal dose of chloroform. *Toxicol Appl Pharmacol* 216(1):108-121. <https://doi.org/10.1016/j.taap.2006.04.012>.
- Phoon WH, Goh KT, Lee LT, et al. 1983. Toxic jaundice from occupational exposure to chloroform. *Med J Malaysia* 38(1):31-34.
- Picardal FW, Arnold RG, Couch H, et al. 1993. Involvement of cytochromes in the anaerobic biotransformation of tetrachloromethane by *Shewanella putrefaciens* 200. *Appl Environ Microbiol* 59(11):3763-3770.
- Piersol GM, Tumen HJ, Kau LS. 1933. Fatal poisoning following the ingestion of chloroform. *Med Clin North Am* 17:587-601.
- Piwoni MD, Wilson JT, Walters DM, et al. 1986. Behavior of organic pollutants during rapid-infiltration of wastewater into soil. I. Processes, definition, and characterization using a microcosm. *Haz Waste Haz Mat* 3:43-55.
- Pleil JD, Lindstrom AB. 1997. Exhaled human breath measurement method for assessing exposure to halogenated volatile organic compounds. *Clin Chem* 43(5):723-730.
- Pohl LR, Gillette JR. 1984. Determination of toxic pathways of metabolism by deuterium substitution. *Drug Metab Rev* 15:1335-1351.
- Pohl LR, Martin JL, Taburet AM, et al. 1980. Oxidative bioaction of haloforms into hepatotoxins. In: Coon MJ, Conney AH, Estabrook RW, et al., eds. *Microsomes, drug oxidations, and chemical carcinogenesis*. Vol. 2. Elsevier, 881-884.
- Pohl LR, Branchflower RV, Highet RJ, et al. 1981. The formation of diglutathionyl dithiocarbonate as a metabolite of chloroform, bromotrichloromethane, and carbon tetrachloride. *Drug Metab Dispos* 9:334-339.
- Porter CK, Putnam SD, Hunting KL, et al. 2005. The effect of trihalomethane and haloacetic acid exposure on fetal growth in a Maryland county. *Am J Epidemiol* 162(4):334-344. <https://doi.org/10.1093/aje/kwi211>.
- Potter CL, Chang LW, DeAngelo AB, et al. 1996. Effects of four trihalomethanes on DNA strand breaks, renal hyaline droplet formation and serum testosterone in male F-344 rats. *Cancer Lett* 106(2):235-242. [https://doi.org/10.1016/0304-3835\(96\)04331-5](https://doi.org/10.1016/0304-3835(96)04331-5).
- Poulin P, Krishnan K. 1996. A tissue composition-based algorithm for predicting tissue:air partition coefficients of organic chemicals. *Toxicol Appl Pharmacol* 136(1):126-130. <https://doi.org/10.1006/taap.1996.0015>.

8. REFERENCES

- Poulin P, Krishnan K. 2001. Molecular structure-based prediction of human abdominal skin permeability coefficients for several organic compounds. *J Toxicol Environ Health A* 62(3):143-159. <https://doi.org/10.1080/009841001458271>.
- Pratt GC, Palmer K, Wu CY, et al. 2000. An assessment of air toxics in Minnesota. *Environ Health Perspect* 108(9):815-825. <https://doi.org/10.1289/ehp.00108815>.
- Price PS, Conolly RB, Chaisson CF, et al. 2003. Modeling interindividual variation in physiological factors used in PBPK models of humans. *Crit Rev Toxicol* 33(5):469-503.
- Purdue MP, Stewart PA, Friesen MC, et al. 2017. Occupational exposure to chlorinated solvents and kidney cancer: a case-control study. *Occup Environ Med* 74(4):268-274. <https://doi.org/10.1136/oemed-2016-103849>.
- Purushotham KR, Lockard VG, Mehendale HM. 1988. Amplification of chloroform hepatotoxicity and lethality by dietary chlordecone (kepone) in mice. *Toxicol Pathol* 16(1):27-34. <https://doi.org/10.1177/019262338801600104>.
- Qu H, Cao J, Wang P, et al. 2022. Volatile organic compounds and dominant bacterial community during aerobic composting of vegetable waste and cow manure co-complexing. *BioResources* 17(1):1338-1353. <https://doi.org/10.15376/biores.17.1.1338-1353>.
- Ramírez N, Marcé RM, Borrull F. 2011. Determination of volatile organic compounds in industrial wastewater plant air emissions by multi-sorbent adsorption and thermal desorption-gas chromatography-mass spectrometry. *Int J Environ Anal Chem* 91(10):911-928. <https://doi.org/10.1080/03067310903584073>.
- Ramsey JC, Andersen ME. 1984. A physiologically-based description of the inhalation pharmacokinetics of styrene in rats and humans. *Toxicol Appl Pharmacol* 73:159-175.
- Rao KN, Virji MA, Moraca MA, et al. 1993. Role of serum markers for liver function and liver regeneration in the management of chloroform poisoning. *J Anal Toxicol* 17(2):99-102. <https://doi.org/10.1093/jat/17.2.99>.
- Ray SD, Mehendale HM. 1990. Potentiation of CCl₄ and CHCl₃ hepatotoxicity and lethality by various alcohols. *Fundam Appl Toxicol* 15(3):429-440. [https://doi.org/10.1016/0272-0590\(90\)90029-j](https://doi.org/10.1016/0272-0590(90)90029-j).
- Reddy TV, Daniel FB, Lin EL, et al. 1992. Chloroform inhibits the development of diethylnitrosamine-initiated, phenobarbital-promoted gamma-glutamyltranspeptidase and placental form glutathione S-transferase-positive foci in rat liver. *Carcinogenesis* 13(8):1325-1330.
- Reitz RH, Mendrala AL, Corley RA, et al. 1990. Estimating the risk of liver cancer associated with human exposures to chloroform using physiologically based pharmacokinetic modeling. *Toxicol Appl Pharmacol* 105:443-459.
- RePORTER. 2024. Chloroform. Research Portfolio Online Reporting Tools. National Institutes of Health. <https://reporter.nih.gov/>. May 8, 2024.
- Rhee E, Speece RE. 1992. Maximal biodegradation rates of chloroform and trichloroethylene in anaerobic treatment. *Water Sci Technol* 25(3):121-130.
- Risse M, Erdmann F, Schütz H, et al. 2001. Multiple homicides as a result of chloroform poisoning: case report and experimental study. *Forensic Sci Int* 124(2-3):209-213. [https://doi.org/10.1016/s0379-0738\(01\)00589-8](https://doi.org/10.1016/s0379-0738(01)00589-8).
- Rivera-Núñez Z, Wright JM. 2013. Association of brominated trihalomethane and haloacetic acid exposure with fetal growth and preterm delivery in Massachusetts. *J Occup Environ Med* 55(10):1125-1134. <https://doi.org/10.1097/JOM.0b013e3182a4ffe4>.
- Rivera-Núñez Z, Wright JM, Meyer A. 2018. Exposure to disinfectant by-products and the risk of stillbirth in Massachusetts. *Occup Environ Med* 75(10):742-751. <https://doi.org/10.1136/oemed-2017-104861>.
- Robbiano L, Mereto E, Migliazzi Morando A, et al. 1998. Increased frequency of micronucleated kidney cells in rats exposed to halogenated anaesthetics. *Mutat Res* 413(1):1-6. [https://doi.org/10.1016/s1383-5718\(97\)00187-3](https://doi.org/10.1016/s1383-5718(97)00187-3).
- Roe FJC, Palmer AK, Worden AN. 1979. Safety evaluation of toothpaste containing chloroform. I. Long-term studies in mice. *J Environ Pathol Toxicol* 2(3):799-819.

8. REFERENCES

- Rooney AA, Boyles AL, Wolfe MS, et al. 2014. Systematic review and evidence integration for literature-based environmental health science assessments. *Environ Health Perspect* 122(7):711-718. <https://doi.org/10.1289/ehp.1307972>.
- Rostad CE, Martin BS, Barber LB, et al. 2000. Effect of a constructed wetland on disinfection byproducts: Removal processes and production of precursors. *Environ Sci Technol* 34(13):2703-2710. <https://doi.org/10.1021/es9900407>.
- Rowe BL, Toccalino PL, Moran MJ, et al. 2007. Occurrence and potential human-health relevance of volatile organic compounds in drinking water from domestic wells in the United States. *Environ Health Perspect* 115(11):1539-1546. <https://doi.org/10.1289/ehp.10253>.
- Roy A, Weisel CP, Gallo MA, et al. 1996a. Studies of multiroute exposure/dose reconstruction using physiologically based pharmacokinetic models. *Toxicol Indust Health* 12(2):153-163.
- Roy A, Weisel CP, Liroy PJ, et al. 1996b. A distributed parameter physiologically-based pharmacokinetic model for dermal and inhalation exposure to volatile organic compounds. *Risk Anal* 16(2):147-160. <https://doi.org/10.1111/j.1539-6924.1995.tb00773.x>.
- Royston GD. 1924. Delayed chloroform poisoning following delivery. *Am J Obstet Gynecol* 10:808-814.
- Ruddick JA, Villeneuve DC, Chu I, et al. 1983. A teratological assessment of four trihalomethanes in the rat. *J Environ Sci Health B* 18(3):333-349. <https://doi.org/10.1080/03601238309372373>.
- Ruder AM, Yiin JH, Waters MA, et al. 2013. The Upper Midwest Health Study: gliomas and occupational exposure to chlorinated solvents. *Occup Environ Med* 70(2):73-80. <https://doi.org/10.1136/oemed-2011-100588>.
- Ruiz P, Ray M, Fisher J, et al. 2011. Development of a human Physiologically Based Pharmacokinetic (PBPK) Toolkit for environmental pollutants. *Int J Mol Sci* 12(11):7469-7480. <https://doi.org/10.3390/ijms12117469>.
- Ryan TJ, Hart EM, Kappler LL. 2002. VOC exposures in a mixed-use university art building. *AIHA J* 63(6):703-708. <https://doi.org/10.1080/15428110208984758>.
- Sa CS, Boaventura RA, Pereira IB. 2011. Analysis of trihalomethanes in water and air from indoor swimming pools using HS-SPME/GC/ECD. *J Environ Sci Health A Tox Hazard Subst Environ Eng* 46(4):355-363. <https://doi.org/10.1080/10934529.2011.542385>.
- Sabljić A. 1984. Predictions of the nature and strength of soil sorption of organic pollutants by molecular topology. *J Agric Food Chem* 32:243-246.
- Salas LA, Cantor KP, Tardon A, et al. 2013. Biological and statistical approaches for modeling exposure to specific trihalomethanes and bladder cancer risk. *Am J Epidemiol* 178(4):652-660. <https://doi.org/10.1093/aje/kwt009>.
- Sarangapani R, Clewell HJ, Cruzan G, et al. 2002. Comparing respiratory-tract and hepatic exposure-dose relationships for metabolized inhaled vapors: a pharmacokinetic analysis. *Inhal Toxicol* 14(8):835-854. <https://doi.org/10.1080/08958370290084656>.
- Sasso AF, Schlosser PM, Kedderis GL, et al. 2013. Application of an updated physiologically based pharmacokinetic model for chloroform to evaluate CYP2E1-mediated renal toxicity in rats and mice. *Toxicol Sci* 131(2):360-374. <https://doi.org/10.1093/toxsci/kfs320>.
- Sate A, Nakajima T, Koyama Y. 1981. Dose-related effects of a single dose of ethanol on the metabolism in rat liver of some aromatic and chlorinated hydrocarbons. *Toxicol Appl Pharmacol* 60:8-15.
- Savitz DA, Singer PC, Herring AH, et al. 2006. Exposure to drinking water disinfection by-products and pregnancy loss. *Am J Epidemiol* 164(11):1043-1051. <https://doi.org/10.1093/aje/kwj300>.
- Sawhney BL. 1989. Movement of organic chemicals through landfill and hazardous waste disposal sites. *SSSA Spec Publ* 22:447-474. <https://doi.org/10.2136/sssaspecpub22.c18>.
- Scholler KL. 1970. Modification of the effects of chloroform on the rat liver. *Br J Anaesth* 42:603-605.
- Scholz EP, Alter M, Zitron E, et al. 2006. In vitro modulation of HERG channels by organochlorine solvent trichloromethane as potential explanation for proarrhythmic effects of chloroform. *Toxicol Lett* 165(2):156-166. <https://doi.org/10.1016/j.toxlet.2006.03.004>.

8. REFERENCES

- Schroeder HG. 1965. Acute and delayed chloroform poisoning. *Br J Anaesth* 37:972-975.
- Schwarz DW, Schwarz IE, Hu K. 1988. Histopathology of chloroform-induced inner ear damage. *J Otolaryngol* 17(1):32-37.
- Schwetz BA, Leong BK, Gehring PJ. 1974. Embryo- and fetotoxicity of inhaled chloroform in rats. *Toxicol Appl Pharmacol* 28(3):442-451. [https://doi.org/10.1016/0041-008x\(74\)90229-4](https://doi.org/10.1016/0041-008x(74)90229-4).
- Scott PS, Andrew JP, Bundy BA, et al. 2020. Observations of volatile organic and sulfur compounds in ambient air and health risk assessment near a paper mill in rural Idaho, U.S.A. *Atmos Pollut Res* 11(10):1870-1881. <https://doi.org/10.1016/j.apr.2020.07.014>.
- Sehata S, Maejima T, Watanabe M, et al. 2002. Twenty-six-week carcinogenicity study of chloroform in CB6F1 rasH2-transgenic mice. *Toxicol Pathol* 30(3):328-338. <https://doi.org/10.1080/01926230252929909>.
- Sekar A, Varghese GK, Varma MKR. 2022. Chloroform - An emerging pollutant in the air. In: Singh P, Agarwal AK, Gupta T, et al., eds. *New trends in emerging environmental contaminants. Energy, environment, and sustainability*. Singapore: Springer, 101-129. https://doi.org/10.1007/978-981-16-8367-1_6.
- Selgrade MK, Gilmour MI. 2010. Suppression of pulmonary host defenses and enhanced susceptibility to respiratory bacterial infection in mice following inhalation exposure to trichloroethylene and chloroform. *J Immunotoxicol* 7(4):350-356. <https://doi.org/10.3109/1547691x.2010.520139>.
- Shatkin J, Szejnwald-Brown H. 1991. Pharmacokinetics of the dermal route of exposure to volatile organic chemicals in water: a computer simulation model. *Environ Res* 56:90-108.
- Shendell DG, Winer AM, Stock TH, et al. 2004. Air concentrations of VOCs in portable and traditional classrooms: results of a pilot study in Los Angeles County. *J Expo Anal Environ Epidemiol* 14(1):44-59. <https://doi.org/10.1038/sj.jea.7500297>.
- Shepherd JL, Corsi RL, Kemp J. 1996. Chloroform in indoor air and wastewater: The role of residential washing machines. *J Air Waste Manag Assoc* 46(7):631-642. <https://doi.org/10.1080/10473289.1996.10467497>.
- Shi J, Zhang K, Xiao T, et al. 2024. Exposure to disinfection by-products and risk of cancer: A systematic review and dose-response meta-analysis. *Ecotoxicol Environ Saf* 270:115925. <https://doi.org/10.1016/j.ecoenv.2023.115925>.
- Silva LK, Backer LC, Ashley DL, et al. 2013. The influence of physicochemical properties on the internal dose of trihalomethanes in humans following a controlled showering exposure. *J Expo Sci Environ Epidemiol* 23(1):39-45. <https://doi.org/10.1038/jes.2012.80>.
- Simmon VF, Kauhanen K, Tardiff RG. 1977. Mutagenic activity of chemicals identified in drinking water. In: Scott D, Bridges BA, Sobels FH, eds. *Progress in genetic toxicology*. Elsevier/North Holland Press, 249-258.
- Singer PP, Jones GR. 2006. An unusual autoerotic fatality associated with chloroform inhalation. *J Anal Toxicol* 30(3):216-218. <https://doi.org/10.1093/jat/30.3.216>.
- Singh HB, Salas JL, Smith AJ. 1981. Measurements of some potentially hazardous chemicals in urban environments. *Atmos Environ* 15:601-612.
- Sipes IG, Krishna G, Gillette JR. 1977. Bioactivation of carbon tetrachloride, chloroform and bromotrchloromethane: Role of cytochrome P-450. *Life Sci* 20:1541-1548.
- Smith AA, Volpito PP, Gramling ZW, et al. 1973. Chloroform, halothane, and regional anesthesia: A comparative study. *Anesth Analg* 52(1):1-11.
- Smith JH, Maita K, Sleight SD, et al. 1984. Effect of sex hormone status on chloroform nephrotoxicity and renal mixed function oxidases in mice. *Toxicology* 30:305-316.
- Smith AE, Gray GM, Evans JS. 1995. The ability of predicted internal dose measures to reconcile tumor bioassay data for chloroform. *Regul Toxicol Pharmacol* 21(3):339-351. <https://doi.org/10.1006/rtph.1995.1048>.
- Smyth HF, Carpenter CP, Weil CS, et al. 1962. Range-finding toxicity data: List VI. *Am Ind Hyg Assoc J* 23:95-107. <https://doi.org/10.1080/00028896209343211>.

8. REFERENCES

- Sofuoglu SC, Lebowitz MD, O'Rourke MK, et al. 2003. Exposure and risk estimates for Arizona drinking water. *J Am Water Works Assoc* 95(7):67-79. <https://doi.org/10.1002/j.1551-8833.2003.tb10409.x>.
- Squillace PJ, Moran MJ, Lapham WW, et al. 1999. Volatile organic compounds in untreated ambient groundwater of the United States, 1985-1995. *Environ Sci Technol* 33(23):4176-4187. <https://doi.org/10.1021/es990234m>.
- Squillace PJ, Moran MJ, Price CV. 2004. VOCs in shallow groundwater in new residential/commercial areas of the United States. *Environ Sci Technol* 38(20):5327-5338. <https://doi.org/10.1021/es0349756>.
- Sridhar N, Krishnakishore C, Sandeep Y, et al. 2011. Chloroform poisoning-a case report. *Renal Failure* 33(10):1037-1039. <https://doi.org/10.3109/0886022x.2011.618920>.
- Stacey NH. 1987a. Reduced glutathione and toxicity of cadmium/chloroform mixtures in isolated rat hepatocytes. *In Vitro Toxicol* 1:189-192.
- Stacey NH. 1987b. Assessment of the toxicity of chemical mixtures with isolated rat hepatocytes: Cadmium and chloroform. *Fundam Appl Toxicol* 9:616-622.
- Stefanovic J, Starsia Z, Murgasova I, et al. 1987. In vitro effects of organic solvents on immunity indicators in serum. *J Hyg Epidemiol Microbial Immunol* 31(1):1-7.
- Stephens RD, Ball ND, Mar DM. 1986. A multimedia study of hazardous waste land fill gas migration. In: *Pollutants in a multimedia environment*. New York, NY: Plenum Press, 265-287.
- Stevens JL, Anders MW. 1981. Effect of cysteine, diethyl maleate, and phenobarbital treatments on the hepatotoxicity of [1H]- and [2H]chloroform. *Chem Biol Interact* 37:207-217.
- Stoner GD, Conran PB, Greisiger EA, et al. 1986. Comparison of two routes of chemical administration on the lung adenoma response in strain A/J mice. *Toxicol Appl Pharmacol* 82:19-31.
- Storms WW. 1973. Chloroform parties. *J Am Med Assoc* 225:160.
- St-Pierre A, Krishnan K, Tardif R. 2003. Evaluation of the influence of chloroacetic acids on the pharmacokinetics of trihalomethanes in the rat. *J Toxicol Environ Health A* 66(23):2267-2280. <https://doi.org/10.1080/713853999>.
- St-Pierre A, Krishnan K, Tardif R. 2005. Characterization of the metabolic interaction between trihalomethanes and chloroacetic acids using rat liver microsomes. *J Toxicol Environ Health A* 68(4):287-298. <https://doi.org/10.1080/15287390590895847>.
- Sturrock J. 1977. Lack of mutagenic effect of halothane or chloroform on cultured cells using the azaguanine test system. *Br J Anaesth* 49:207-210.
- Suehiro Y, Uchida T, Tsuge M, et al. 2023. Acute liver injury in a non-alcoholic fatty liver disease patient with chloroform exposure: a case report. *Clin J Gastroenterol* 16(2):250-253. <https://doi.org/10.1007/s12328-023-01760-7>.
- Summerhayes RJ, Morgan GG, Edwards HP, et al. 2012. Exposure to trihalomethanes in drinking water and small-for-gestational-age births. *Epidemiology* 23(1):15-22. <https://doi.org/10.1097/EDE.0b013e31823b669b>.
- Summerhayes RJ, Rahman B, Morgan GG, et al. 2021. Meta-analysis of small for gestational age births and disinfection byproduct exposures. *Environ Res* 196:110280. <https://doi.org/10.1016/j.envres.2020.110280>.
- Sun Y, Wang YX, Liu C, et al. 2020. Trimester-specific blood trihalomethane and urinary haloacetic acid concentrations and adverse birth outcomes: Identifying windows of vulnerability during pregnancy. *Environ Health Perspect* 128(10):107001. <https://doi.org/10.1289/EHP7195>.
- Sun Y, Chen C, Mustieles V, et al. 2021a. Association of blood trihalomethane concentrations with risk of all-cause and cause-specific mortality in U.S. Adults: A prospective cohort study. *Environ Sci Technol* 55(13):9043-9051. <https://doi.org/10.1021/acs.est.1c00862>.
- Sun Y, Xia PF, Korevaar TIM, et al. 2021b. Relationship between blood trihalomethane concentrations and serum thyroid function measures in U.S. adults. *Environ Sci Technol* 55(20):14087-14094. <https://doi.org/10.1021/acs.est.1c04008>.

8. REFERENCES

- Sun Y, Xia PF, Xie J, et al. 2022. Association of blood trihalomethane concentrations with asthma in US adolescents: nationally representative cross-sectional study. *Eur Respir J* 59(5):2101440. <https://doi.org/10.1183/13993003.01440-2021>.
- Sun Y, Wang YX, Liu C, et al. 2023a. Exposure to trihalomethanes and bone mineral density in US adolescents: A Cross-Sectional Study (NHANES). *Environ Sci Technol* 57(51):21616-21626. <https://doi.org/10.1021/acs.est.3c07214>.
- Sun Y, Wang YX, Mustieles V, et al. 2023b. Blood trihalomethane concentrations and allergic sensitization: A nationwide cross-sectional study. *Sci Total Environ* 871:162100. <https://doi.org/10.1016/j.scitotenv.2023.162100>.
- Swartz MD, Cai Y, Chan W, et al. 2015a. Air toxics and birth defects: a Bayesian hierarchical approach to evaluate multiple pollutants and spina bifida. *Environ Health* 14:16. <https://doi.org/10.1186/1476-069X-14-16>.
- Swartz MD, Cai Y, Chan W, et al. 2015b. Supplemental material: Air toxics and birth defects: a Bayesian hierarchical approach to evaluate multiple pollutants and spina bifida. *Environ Health* 14 <https://doi.org/10.1186/1476-069X-14-16>.
- Sweeney LM, Gearhart JM. 2020. Examples of physiologically based pharmacokinetic modeling applied to risk assessment. In: Fisher JW, Gearhart JM, Lin Z, eds. *Physiologically based pharmacokinetic (PBPK) modeling*. Academic Press, 281-299. <https://doi.org/10.1016/B978-0-12-818596-4.00011-4>.
- Tabak HH, Quave SA, Mashni CI, et al. 1981. Biodegradability studies with organic priority pollutant compounds. *J Water Pollut Control Fed* 53:1503-1518.
- Take M, Yamamoto S, Ohnishi M, et al. 2010. Chloroform distribution and accumulation by combined inhalation plus oral exposure routes in rats. *J Environ Sci Health A Toxic Hazard Subst Environ Eng* 45(12):1616-1624. <https://doi.org/10.1080/10934529.2010.506121>.
- Take M, Takeuchi T, Haresaku M, et al. 2014. Estimation of chloroform inhalation dose by other routes based on the relationship of area under the blood concentration-time curve (AUC)-inhalation dose to chloroform distribution in the blood of rats. *J Environ Sci Health A Tox Hazard Subst Environ Eng* 49(3):253-261. <https://doi.org/10.1080/10934529.2014.846191>.
- Tan YM, Butterworth BE, Gargas ML, et al. 2003. Biologically motivated computational modeling of chloroform cytolethality and regenerative cellular proliferation. *Toxicol Sci* 75(1):192-200. <https://doi.org/10.1093/toxsci/kfg152>.
- Tan YM, Liao KH, Conolly RB, et al. 2006. Use of a physiologically based pharmacokinetic model to identify exposures consistent with human biomonitoring data for chloroform. *J Toxicol Environ Health* 69(18):1727-1756. <https://doi.org/10.1080/15287390600631367>.
- Tan YM, Liao KH, Clewell HJ. 2007. Reverse dosimetry: interpreting trihalomethanes biomonitoring data using physiologically based pharmacokinetic modeling. *J Expo Sci Environ Epidemiol* 17(7):591-603. <https://doi.org/10.1038/sj.jes.7500540>.
- Tan YM, Chan M, Chukwudebe A, et al. 2020. PBPK model reporting template for chemical risk assessment applications. *Regul Toxicol Pharmacol* 115:104691. <https://doi.org/10.1016/j.yrtph.2020.104691>.
- Tao L, Wang W, Li L, et al. 2005. DNA hypomethylation induced by drinking water disinfection by-products in mouse and rat kidney. *Toxicol Sci* 87(2):344-352. <https://doi.org/10.1093/toxsci/kfi257>.
- Tardif R, Charest-Tardif G, Brodeur J, et al. 1997. Physiologically based pharmacokinetic modeling of a ternary mixture of alkyl benzenes in rats and humans. *Toxicol Appl Pharmacol* 144(1):120-134. <https://doi.org/10.1006/taap.1996.8096>.
- Taylor DC, Brown DM, Keeble R, et al. 1974. Metabolism of chloroform. II. A sex difference in the metabolism of [¹⁴C]chloroform in mice. *Xenobiotica* 4:165-174.
- Templin MV, Jamison KC, Wolf DC, et al. 1996a. Comparison of chloroform-induced toxicity in the kidneys, liver, and nasal passages of male Osborne-Mendel and F-344 rats. *Cancer Lett* 104(1):71-78. [https://doi.org/10.1016/0304-3835\(96\)04234-6](https://doi.org/10.1016/0304-3835(96)04234-6).

8. REFERENCES

- Templin MV, Larson JL, Butterworth BE, et al. 1996b. A 90-day chloroform inhalation study in F-344 rats: profile of toxicity and relevance to cancer studies. *Fundam Appl Toxicol* 32(1):109-125. <https://doi.org/10.1006/faat.1996.0113>.
- Templin MV, Jamison KC, Sprinkle CS, et al. 1996c. Chloroform-induced cytotoxicity and regenerative cell proliferation in the kidneys and liver of BDF1 mice. *Cancer Lett* 108(2):225-231. [https://doi.org/10.1016/s0304-3835\(96\)04427-8](https://doi.org/10.1016/s0304-3835(96)04427-8).
- Templin MV, Constan AA, Wolf DC, et al. 1998. Patterns of chloroform-induced regenerative cell proliferation in BDF1 mice correlate with organ specificity and dose-response of tumor formation. *Carcinogenesis* 19(1):187-193. <https://doi.org/10.1093/carcin/19.1.187>.
- Teschke K, Ahrens W, Andersen A, et al. 1999. Occupational exposure to chemical and biological agents in the nonproduction departments of pulp, paper, and paper product mills: an international study. *Am Ind Hyg Assoc J* 60(1):73-83. <https://doi.org/10.1080/00028899908984424>.
- Testai E, Gramenzi F, Di MS, et al. 1987. Oxidative and reductive biotransformation of chloroform in mouse liver microsomes. *Arch Toxicol Suppl* 11:42-44. https://doi.org/10.1007/978-3-642-72558-6_6.
- Testai E, DiMarzio S, Vittiozzi L. 1990. Multiple activation of chloroform in hepatic microsomes from uninduced B6C3F1 mice. *Toxicol Appl Pharmacol* 104:496-503.
- Testai E, Di Marzio S, di Domenico A, et al. 1995. An in vitro investigation of the reductive metabolism of chloroform. *Arch Toxicol* 70(2):83-88. <https://doi.org/10.1007/bf02733667>.
- Testai E, De Curtis V, Gemma S, et al. 1996. The role of different cytochrome P450 isoforms in in vitro chloroform metabolism. *J Biochem Toxicol* 11(6):305-312. [https://doi.org/10.1002/\(sici\)1522-7146\(1996\)11:6<305::aid-jbt6>3.0.co;2-o](https://doi.org/10.1002/(sici)1522-7146(1996)11:6<305::aid-jbt6>3.0.co;2-o).
- Teuschler LK, Gennings C, Stiteler WM, et al. 2000. A multiple-purpose design approach to the evaluation of risks from mixtures of disinfection by-products. *Drug Chem Toxicol* 23(1):307-321. <https://doi.org/10.1081/dct-100100117>.
- Teuschler LK, Rice GE, Wilkes CR, et al. 2004. A feasibility study of cumulative risk assessment methods for drinking water disinfection by-product mixtures. *J Toxicol Environ Health A* 67(8-10):755-777. <https://doi.org/10.1080/15287390490428224>.
- Thompson DJ, Warner SD, Robinson VB. 1974. Teratology studies on orally administered chloroform in the rat and rabbit. *Toxicol Appl Pharmacol* 29(3):348-357. [https://doi.org/10.1016/0041-008x\(74\)90107-0](https://doi.org/10.1016/0041-008x(74)90107-0).
- Thrall KD, Gies RA, Muniz J, et al. 2002. Route-of-entry and brain tissue partition coefficients for common superfund contaminants. *J Toxicol Environ Health A* 65(24):2075-2086. <https://doi.org/10.1080/00984100290071838>.
- Toraason M, Breitenstein MJ, Wey HE. 1992. Reversible inhibition of intercellular communication among cardiac myocytes by halogenated hydrocarbons. *Fundam Appl Toxicol* 18(1):59-65.
- Torkelson TR, Oyen F, Rowe VK. 1976. The toxicity of chloroform as determined by single and repeated exposure of laboratory animals. *Am Ind Hyg Assoc J* 37(12):697-705. <https://doi.org/10.1080/0002889768507551>.
- Townsend E. 1939. Acute yellow atrophy of the liver. Two cases, with one recovery. *Br Med J* 2:558-560.
- Travis CC, Holton GA, Etnier EL, et al. 1986. Assessment of inhalation and ingestion population exposures from incinerated hazardous wastes. *Environ Int* 12:533-540.
- Trevisan A, Chiara F, Mongillo M, et al. 2012. Sex-related differences in renal toxicodynamics in rodents. *Expert Opin Drug Metab Toxicol* 8(9):1173-1188. <https://doi.org/10.1517/17425255.2012.698262>.
- TRI22. 2024. Chloroform. TRI explorer: Providing access to EPA's toxics release inventory data. Washington, DC: U.S. Environmental Protection Agency. https://enviro.epa.gov/triexplorer/tri_release.chemical. May 8, 2024.

8. REFERENCES

- Tsai WT. 2017. Fate of chloromethanes in the atmospheric environment: Implications for human health, ozone formation and depletion, and global warming impacts. *Toxics* 5(4):23. <https://doi.org/10.3390/toxics5040023>.
- Tsuruta H. 1975. Percutaneous absorption of organic solvents. 1. Comparative study of the in vivo percutaneous absorption of chlorinated solvents in mice. *Ind Health* 13:227-236.
- Tumasonis CF, McMartin DN, Bush B. 1985. Lifetime toxicity of chloroform and bromodichloromethane when administered over a lifetime in rats. *Ecotoxicol Environ Safety* 9(2):233-240. [https://doi.org/10.1016/0147-6513\(85\)90026-0](https://doi.org/10.1016/0147-6513(85)90026-0).
- Tumasonis CF, McMartin DN, Bush B. 1987. Toxicity of chloroform and bromodichloromethane when administered over a lifetime in rats. *J Environ Pathol Toxicol Oncol* 7:55-64.
- Uchrin CG, Mangels G. 1986. Chloroform sorption to New Jersey coastal plain groundwater aquifer solids. *Environ Toxicol Chem* 5:339-343.
- Uehleke H, Werner T, Greim H, et al. 1977. Metabolic activation of haloalkanes and tests in vitro for mutagenicity. *Xenobiotica* 7(7):393-400. <https://doi.org/10.3109/00498257709035798>.
- USGS. 2003. A national survey of methyl tert-butyl ether and other volatile organic compounds in drinking-water sources: Results of the random survey. Denver, CO: U.S. Geological Survey. Water-Resources Investigations Report 02-4079. <https://pubs.usgs.gov/wri/2002/4079/wrir20024079.pdf>. February 14, 2023.
- USGS. 2004. Chloroform in the hydrologic system - sources, transport, fate, occurrence, and effects on human health and aquatic organisms. Reston, VA: U.S. Geological Survey. Scientific Investigations Report 2004-5137. <https://pubs.usgs.gov/sir/2004/5137/sir20045137.pdf>. January 26, 2023.
- USGS. 2006. Sources and occurrence of chloroform and other trihalomethanes in drinking-water supply wells in the United States, 1986-2001. Reston, VA: U.S. Geological Survey. Scientific Investigations Report 2006-5015. <https://pubs.usgs.gov/sir/2006/5015/sir2006-5015.pdf>. January 26, 2023.
- USGS. 2015a. The quality of our Nation's waters: Water quality in principal aquifers of the United States, 1991-2010. U.S. Geological Survey. Circular 1360. <https://doi.org/10.3133/cir1360>.
- USGS. 2015b. The quality of our Nation's waters: Water quality in principal aquifers of the United States, 1991-2010: Appendices 1-3. U.S. Geological Survey. Circular 1360. <https://pubs.er.usgs.gov/publication/cir1360>. February 6, 2023.
- USITC. 2023. Import for consumption: Chloroform. U.S. International Trade Commission. <https://dataweb.usitc.gov/>. October 20, 2023.
- Van Abbé, N. J., Green TJ, Jones E, et al. 1982. Bacterial mutagenicity studies on chloroform in vitro. *Food Chem Toxicol* 20(5):557-561. [https://doi.org/10.1016/s0278-6915\(82\)80064-1](https://doi.org/10.1016/s0278-6915(82)80064-1).
- van Beelen P, van Vlaardingen PLA, Fleuren-Kemila AK. 1994. Toxic effects of pollutants on the mineralization of chloroform in river sediments. *Ecotoxicol Environ Safety* 27(2):158-167.
- Van Dyke RA, Chenoweth MB, Poznak AV. 1964. Metabolism of volatile anesthetics. I. Conversion in vivo of several anesthetics to $^{14}\text{CO}_2$ and chloride. *Biochem Pharmacol* 13:1239-1247.
- van Vlaardingen PLA, van Beelen P. 1992. Toxic effects of pollutants on methane production in sediments of the River Rhine. *Bull Environ Contam Toxicol* 49(5):780-786.
- Varma MM, Ampy FR, Verma K, et al. 1988. In vitro mutagenicity of water contaminants in complex mixtures. *J Appl Toxicol* 8:243-248.
- Vasilev D, Havel D, Liebscher S, et al. 2021. Three water restriction schedules used in rodent behavioral tasks transiently impair growth and differentially evoke a stress hormone response without causing dehydration. *eNeuro* 8(6):0424. <https://doi.org/10.1523/ENEURO.0424-21.2021>.
- Veith GD, Macek KJ, Petrocelli SR, et al. 1980. An evaluation of using partition coefficients and water solubility to estimate bioconcentration factors for organic chemicals in fish. In: *Aquatic toxicology*. American Society for Testing and Materials, 116-129.
- Vendura K, Strauch H, Pragst F, et al. 1996. [Fatal chloroform poisoning with subsequent crime]. *Archiv fur Kriminologie* 198(3-4):83-88. (German)

8. REFERENCES

- Vickstrom KE, Azizian MF, Semprini L. 2017. Transformation of carbon tetrachloride and chloroform by trichloroethene respiring anaerobic mixed cultures and supernatant. *Chemosphere* 182:65-75. <https://doi.org/10.1016/j.chemosphere.2017.04.139>.
- Villanueva CM, Gracia-Lavedan E, Ibarluzea J, et al. 2011. Exposure to trihalomethanes through different water uses and birth weight, small for gestational age, and preterm delivery in Spain. *Environ Health Perspect* 119(12):1824-1830. <https://doi.org/10.1289/ehp.1002425>.
- Villanueva CM, Gracia-Lavedan E, Bosetti C, et al. 2017. Colorectal cancer and long-term exposure to trihalomethanes in drinking water: A multicenter case-control study in Spain and Italy. *Environ Health Perspect* 125(1):56-65. <https://doi.org/10.1289/EHP155>.
- Villanueva CM, Gracia-Lavedan E, Julvez J, et al. 2018. Drinking water disinfection by-products during pregnancy and child neuropsychological development in the INMA Spanish cohort study. *Environ Int* 110:113-122. <https://doi.org/10.1016/j.envint.2017.10.017>.
- Villanueva CM, Espinosa A, Gracia-Lavedan E, et al. 2021. Exposure to widespread drinking water chemicals, blood inflammation markers, and colorectal cancer. *Environ Int* 157:106873. <https://doi.org/10.1016/j.envint.2021.106873>.
- Vittozzi L, Gemma S, Sbraccia M, et al. 2000. Comparative characterization of CHCl₃ metabolism and toxicokinetics in rodent strains differently susceptible to chloroform-induced carcinogenicity. *Environ Toxicol Chem* 8(2):103-110. [https://doi.org/10.1016/s1382-6689\(00\)00031-4](https://doi.org/10.1016/s1382-6689(00)00031-4).
- Vittozzi L, Gemma S, Sbraccia M, et al. 2001. Erratum to "Comparative characterization of CHCl₃ metabolism and toxicokinetics in rodent strains differently susceptible to chloroform-induced carcinogenicity" [*Environ. Toxicol. Pharmacol.* 8 (2000) 103–110]. *Environ Toxicol Pharmacol* 9(4):193. [https://doi.org/10.1016/s1382-6689\(00\)00072-7](https://doi.org/10.1016/s1382-6689(00)00072-7).
- Vlaanderen J, van Veldhoven K, Font-Ribera L, et al. 2017. Acute changes in serum immune markers due to swimming in a chlorinated pool. *Environ Int* 105:1-11. <https://doi.org/10.1016/j.envint.2017.04.009>.
- Vlad IA, Armstrong J, Gault A. 2014. A painless burn: systemic toxicity after dermal exposure to chloroform. *Emerg Med Australas* 26(6):648-649. <https://doi.org/10.1111/1742-6723.12304>.
- Wada K, Fukuyama T, Nakashima N, et al. 2015. Assessment of the in vivo genotoxicity of cadmium chloride, chloroform, and D,L-menthol as coded test chemicals using the alkaline comet assay. *Mutat Res* 786-788:114-119. <https://doi.org/10.1016/j.mrgentox.2015.04.004>.
- Wallace CJ. 1950. Hepatitis and nephrosis due to cough syrup containing chloroform. *Calif Med* 731:442-443.
- Wallace LA. 1997. Human exposure and body burden for chloroform and other trihalomethanes. *Crit Rev Environ Sci Technol* 27(2):113-194. <https://doi.org/10.1080/10643389.1997.10737059>.
- Wallace LA, Pellizzari ED, Hartwell TD, et al. 1987a. The TEAM study: Personal exposures to toxic substances in air, drinking water, and breath of 400 residents of New Jersey, North Carolina, and North Dakota. *Environ Res* 43:290-307.
- Wallace LA, Hartwell TD, Perritt K, et al. 1987b. The influence of personal activities on exposure to volatile organic compounds. In: Seifert B, Esdorn H, Fischer M, et al., eds. *Indoor Air '87 : proceedings of the 4th International Conference on Indoor Air Quality and Climate, Berlin (West) 17-21 August 1987*. Berlin, Germany: Institute of Water, Soil, and Air Hygiene, 117-121.
- Wang PY, Kaneko T, Tsukada H, et al. 1994. Dose and route dependency of metabolism and toxicity of chloroform in ethanol-treated rats. *Arch Toxicol* 69:18-23.
- Wang PY, Kaneko T, Sato A, et al. 1995. Dose and route dependent alteration of metabolism and toxicity of chloroform in fed and fasting rats. *Toxicol Appl Pharm* 135(1):119-126.
- Wang PY, Kaneko T, Tsukada H, et al. 1997. Dose- and route-dependent alterations in metabolism and toxicity of chemical compounds in ethanol-treated rats: difference between highly (chloroform) and poorly (carbon tetrachloride) metabolized hepatotoxic compounds. *Toxicol Appl Pharmacol* 142(1):13-21. <https://doi.org/10.1006/taap.1996.8025>.

8. REFERENCES

- Wang Z, Hall SD, Maya JF, et al. 2003. Diabetes mellitus increases the in vivo activity of cytochrome P450 2E1 in humans. *Br J Clin Pharmacol* 55(1):77-85. <https://doi.org/10.1046/j.1365-2125.2003.01731.x>.
- Wei C, Chen Y, Yang Y, et al. 2022. Assessing volatile organic compounds exposure and prostate-specific antigen: National Health and Nutrition Examination Survey, 2001-2010. *Front Public Health* 10:957069. <https://doi.org/10.3389/fpubh.2022.957069>.
- Wei C, Pan Y, Zhang W, et al. 2023. Comprehensive analysis between volatile organic compound (VOC) exposure and female sex hormones: a cross-sectional study from NHANES 2013-2016. *Environ Sci Pollut Res Int* 30(42):95828-95839. <https://doi.org/10.1007/s11356-023-29125-0>.
- Weir LR, Schenck E, Meakin J, et al. 2005. Biophotonic imaging in HO-1.luc transgenic mice: real-time demonstration of gender-specific chloroform induced renal toxicity. *Mutat Res* 574(1-2):67-75. <https://doi.org/10.1016/j.mrfmmm.2005.01.023>.
- Weisel CP, Alimokhtari S, Sanders PF. 2008. Indoor air VOC concentrations in suburban and rural New Jersey. *Environ Sci Technol* 42(22):8231-8238. <https://doi.org/10.1021/es8005223>.
- Whitaker AM, Jones CS. 1965. Report of 1500 chloroform anesthetics administered with a precision vaporizer. *Anesth Analg* 44:60-65.
- White AE, Takehisa S, Eger EI, et al. 1979. Sister chromatid exchanges induced by inhaled anesthetics. *Anesthesiology* 50:426-430.
- WHO. 2004. Chloroform. Geneva: World Health Organization. Concise International Chemical Assessment Document 58. <http://apps.who.int/iris/bitstream/handle/10665/42884/9241530588.pdf;jsessionid=386B27164E25231BA273DE2D7C2AA226?sequence=1>. February 6, 2023.
- WHO. 2010. Guidelines for indoor air quality: Selected pollutants. World Health Organization. <https://www.who.int/publications/i/item/9789289002134>. April 25, 2012.
- WHO. 2022. Guidelines for drinking-water quality. Fourth edition incorporating the first and second addenda. World Health Organization. <https://www.who.int/publications/i/item/9789240045064>. June 22, 2022.
- Wickliffe JK, Stock TH, Howard JL, et al. 2020. Increased long-term health risks attributable to select volatile organic compounds in residential indoor air in southeast Louisiana. *Sci Rep* 10(1):21649. <https://doi.org/10.1038/s41598-020-78756-7>.
- Williams AL, Bates CA, Pace ND, et al. 2018. Impact of chloroform exposures on reproductive and developmental outcomes: A systematic review of the scientific literature. *Birth Defects Res* 110(17):1267-1313. <https://doi.org/10.1002/bdr2.1382>.
- Wilson J, Enfield CG, Dunlap WJ, et al. 1981. Transport and fate of selected organic pollutants in a sandy soil. *J Environ Qual* 10:501-506.
- Windham GC, Waller K, Anderson M, et al. 2003. Chlorination by-products in drinking water and menstrual cycle function. *Environ Health Perspect* 111(7):935-941; discussion A409. <https://doi.org/10.1289/ehp.5922>.
- Withey JR, Collins BT, Collins PG. 1983. Effect of vehicle on the pharmacokinetics and uptake of four halogenated hydrocarbons from the gastrointestinal tract of the rat. *J Appl Toxicol* 3:249-253.
- WMO. 2018. Update on ozone-depleting substances (ODSs) and other gases of interest to the Montreal Protocol. Scientific assessment of ozone depletion: 2018. Geneva, Switzerland: World Meteorological Organization. 1.1-1.87. Global Ozone Research and Monitoring Project—Report No. 58. <https://ozone.unep.org/sites/default/files/2019-05/SAP-2018-Assessment-report.pdf>. February 3, 2023.
- Wolf CR, Mansuy D, Nastainczyk W, et al. 1977. The reduction of polyhalogenated methanes by liver microsomal cytochrome P-450. *Mol Pharmacol* 13:698-705.
- Wolfe J, Kandra J, Engdahl L, et al. 2020. Domestic workers chartbook: A comprehensive look at the demographics, wages, benefits, and poverty rates of the professionals who care for our family members and clean our homes. Washington, DC: Economic Policy Institute. <https://www.epi.org/publication/domestic-workers-chartbook-a-comprehensive-look-at-the->

8. REFERENCES

- demographics-wages-benefits-and-poverty-rates-of-the-professionals-who-care-for-our-family-members-and-clean-our-homes/. October 20, 2023.
- Wood JA, Porter ML. 1987. Hazardous pollutants in class II landfills. *J Air Pollut Control Assoc* 37:609-615.
- WQP. 2024. Chloroform. Water Quality Portal database. National Water Quality Monitoring Council. <https://www.waterqualitydata.us/>. May 8, 2024.
- Wright JM, Schwartz J, Dockery DW. 2004. The effect of disinfection by-products and mutagenic activity on birth weight and gestational duration. *Environ Health Perspect* 112(8):920-925. <https://doi.org/10.1289/ehp.6779>.
- Xu X, Weisel CP. 2005. Human respiratory uptake of chloroform and halo ketones during showering. *J Expo Anal Environ Epidemiol* 15(1):6-16. <https://doi.org/10.1038/sj.jea.7500374>.
- Xu X, Mariano TM, Laskin JD, et al. 2002. Percutaneous absorption of trihalomethanes, haloacetic acids, and halo ketones. *Toxicol Appl Pharmacol* 184(1):19-26.
- Yamamoto S, Kasai T, Matsumoto M, et al. 2002. Carcinogenicity and chronic toxicity in rats and mice exposed to chloroform by inhalation. *J Occup Health* 44(5):283-293. <https://doi.org/10.1539/joh.44.283>.
- Yan Z, Qian H, Yao J, et al. 2024. Mechanistic insight into the role of typical microplastics in chlorination disinfection: Precursors and adsorbents of both MP-DOM and DBPs. *J Hazard Mater* 462:132716. <https://doi.org/10.1016/j.jhazmat.2023.132716>.
- Yang Y, Xu X, Georgopoulos PG. 2010. A Bayesian population PBPK model for multiroute chloroform exposure. *J Expo Sci Environ Epidemiol* 20(4):326-341. <https://doi.org/10.1038/jes.2009.29>.
- Yoshida T, Andoh K, Fukuhara M. 1999. Estimation of absorption of trihalomethanes and carbon tetrachloride in low-level exposure by inhalation pharmacokinetic analysis in rats. *Arch Environ Contam Toxicol* 36(3):347-354. <https://doi.org/10.1007/s002449900481>.
- Zaganjor I, Luben TJ, Desrosiers TA, et al. 2020. Maternal exposure to disinfection by-products and risk of hypospadias in the National Birth Defects Prevention Study (2000-2005). *Int J Environ Res Public Health* 17(24):9564. <https://doi.org/10.3390/ijerph17249564>.
- Zeng Q, Li M, Xie SH, et al. 2013. Baseline blood trihalomethanes, semen parameters and serum total testosterone: a cross-sectional study in China. *Environ Int* 54:134-140. <https://doi.org/10.1016/j.envint.2013.01.016>.
- Zeng Q, Chen YZ, Xu L, et al. 2014. Evaluation of exposure to trihalomethanes in tap water and semen quality: a prospective study in Wuhan, China. *Reprod Toxicol* 46:56-63. <https://doi.org/10.1016/j.reprotox.2014.03.005>.
- Zepp RG, Braun AM, Hoigne J, et al. 1987. Photoproduction of hydrated electrons from natural organic solutes in aquatic environments. *Environ Sci Technol* 21:485-490.
- Zhang L, Xu L, Zeng Q, et al. 2012. Comparison of DNA damage in human-derived hepatoma line (HepG2) exposed to the fifteen drinking water disinfection byproducts using the single cell gel electrophoresis assay. *Mutat Res* 741(1-2):89-94. <https://doi.org/10.1016/j.mrgentox.2011.11.004>.
- Zhang J, Wang W, Pei Z, et al. 2021. Mutagenicity assessment to pesticide adjuvants of toluene, chloroform, and trichloroethylene by Ames test. *Int J Environ Res Public Health* 18(15):8095. <https://doi.org/10.3390/ijerph18158095>.
- Zhang Y, Feng Y, He M, et al. 2023. Association of blood trihalomethane concentrations with hypertension in US adults: A nationwide cross-sectional study. *Sci Total Environ* 904:166712. <https://doi.org/10.1016/j.scitotenv.2023.166712>.
- Zhou Y, Wu HJ, Zhang YH, et al. 2011. Ionic mechanisms underlying cardiac toxicity of the organochloride solvent trichloromethane. *Toxicology* 290(2-3):295-304. <https://doi.org/10.1016/j.tox.2011.10.009>.
- Zhu SM, Li C, Xu JJ, et al. 2022. Exposure to chloramine and chloroform in tap water and adverse perinatal outcomes in Shanghai. *Int J Environ Res Public Health* 19(11):6508. <https://doi.org/10.3390/ijerph19116508>.