

8. REFERENCES

*ACGIH. 1993. Threshold limit values and biological exposure indices for 1993-1994. American Conference of Governmental Industrial Hygienists. Cincinnati, OH.

Agarwal DP, Goedde HW. 1986. Pharmacogenetics and ecogenetics. *Experientia* (Basel) 42(10):1148-1154.

*Ahlborg G Jr, Bergstroem B, Hogstedt C, et al. 1985. Urinary screening for potentially genotoxic exposures in a chemical industry. *Br J Ind Med* 42:691-699.

*Ahlborg G Jr, Einisto P, Sorsa M. 1988a. Mutagenic activity and metabolites in the urine of workers exposed to trinitrotoluene (TNT). *Br J Ind Med* 45(5):353-358.

*Ahlborg G Jr, Ulander A, Bergstrom B, et al. 1988b. Diazo-positive metabolites in urine from workers exposed to aromatic nitro-amino compounds. *International Archives of Occupational and Environmental Health* (Int Arch Occup Environ Health) 60(1):51-54.

Albanbauer J, Kraatz A, Megges G. 1983. [Forensic chemistry studies following detonation of explosives.] *Arch Kriminol* 171(3-4):89-96. (German)

*Almog J, Kraus S, Basch A. 1983. Determination of TNT metabolites in urine. *Arch Toxicol* [Suppl] 6:351-353.

Alvarez M, Hanners JL, Botsford J, et al. 1991. Enzyme catalyzed transformation of 2,4,6-trinitrotoluene. In: 91st General Meeting of the American Society for Microbiology, Dallas, Texas, May 5-9, 1991. *Abstr Gen Meet Am Soc Microbiol* 91:217.

Amas SA, Yallop HJ. 1966. The identification of industrial blasting explosives of the gelignite type. *J Forensic Sci Soc* 6(4):185-188.

Amerkhanova NN, Naumova RP. 1978. 2,4,6-Trinitrotoluene as a source of nutrition for bacteria. *Mikrobiologiya* 47(3):393-395.

Amr M, Allam M, Osmaan AL, et al. 1993. Neurobehavioral changes among workers in some chemical industries in Egypt. *Environmental Research* 63:295-300.

Anastos GJ, Noland JW, Johnson NP, et al. 1988. Innovative technologies for hazardous waste treatment. *Nucl Chem Waste Manage* 8(4):269-282.

*Cited in text

8. REFERENCES

*Andersson K, Levin JO, Nilsson CA. 1983. Evaluation of solid sorbents for sampling aliphatic and aromatic nitrocompounds in work-room air. *Chemosphere* 12(3):377-384.

Andren RK, McDonnell R, Stevens B, et al. 1977a. Explosives from wastewater. *Ind Wastes* 23(2):28-31, 49.

*Andren RK, Nystron JM, McDonnell RP, et al. 1977b. Explosives removal from munitions wastewater. *Proc Ind Waste Conf* 30:816-825.

Anonymous. 1988. 2,4,6-Trinitrotoluene (wet). *Dangerous Prop Ind Mater Rep* 8(4):75-80.

Apel EC, Nogar NS. 1986. Multiphoton photoionization mass spectra of nitrobenzene and 2,4,6-trinitrotoluene. *International J Mass Spectrometry Ionic Processes* 70(2):243-246.

Army. 1972. Reactions of aromatic nitrocompounds: I. Photochemistry. Dover, NJ: U.S. Army, Picatinny Arsenal. Document no. AD 753 923.

Army. 1973. Mammalian toxicology and toxicity to aquatic organisms of TNT, DNT, and other munitions manufacturing waste constituents of pink water - a literature evaluation. Contract no. DADA 17-73-C-3150. Washington, DC: U.S. Army Medical Research and Development Command. Document no. AD-777903/6GA.

*Army. 1974. Biodegradation of alpha TNT and its product isomers. Contract no. DAAG17-73-C-0276. Natick, MA: U.S. Army Natick Development Center. Document no. AD-A016128.

*Army. 1976. Adverse health effects of selected explosives (TNT, RDX). Report no. USAEHH-32-049-75/76. Aberdeen Proving Ground: MD: U.S. Army Environmental Hygiene Agency. Document no. AD-B010943.

Army. 1977. Mutagenicity of some munition waste water chemicals and chlorine test kit reagents. Final report. U.S. Army Medical Research and Development Command. Contract no. DAMD 17-76-C-6013. Frederick, MD: U.S. Army Medical Research and Development Command. Document no. AD-A057680.

*Army. 1978a. A literature review - problem definition studies on selected toxic chemicals. Volume 3: Occupational health and safety aspects of 2,4,6-trinitrotoluene (TNT). Contract no. DAMD 17-77-C-7020. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD A055683.

*Army. 1978b. Mammalian toxicity of munitions compounds: Phase I. Acute oral toxicity, primary skin and eye irritation, dermal sensitization, disposition and metabolism, and Ames tests of additional compounds. Contract no. DAMD-17-74-C-4073. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A069 333.

*Army. 1978c. Mammalian toxicological evaluation of TNT wastewaters. Volume II: Acute and subacute mammalian toxicity of TNT and the LAP mixture. Contract no. 17-76-C-6050. Frederick,

8. REFERENCES

MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A080 957.

Army. 1978d. Specific air pollutants from munitions processing and their atmospheric behavior. Volume 2: RDX/HMX production. Contract no. DAMD17-76-C-6067. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A060122.

Army. 1978e. The biodegradation of TNT in enhanced soil and compost systems. Report no. ARLCDTR-77032, AD-E400073. Dover, NJ: U.S. Army Armament, Research and Development Command. Document no. AD-A054375.

*Army. 1979. Mammalian toxicological evaluations of TNT wastewaters. Volume III: Acute and subacute mammalian toxicity of condensate water. Contract no. DAMD17-76C6050. Frederick, MD: US Army Medical Research and Development Command, Fort Detrick. Document no. AD-A081590.

Army. 1980a. Analytical chemistry of 2,4,6-trinitrotoluene. Report no. ARLCD-SP-8007, ADE400487. Dover, NJ: U.S. Army Armament Research and Development Command. Document no. ADA092348.

*Army. 1980b. Environmental fate of RDX and TNT. Final Report, Contract no. DAMD-17-77-C-7026. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick.

Army. 1980c. Environmental fate studies on certain munitions wastewater constituents. Final report: Phase II lab studies. Contract no. DAMD 17-78-C-8081. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A099256.

*Army. 1980d. Mammalian toxicity of munitions compounds: Summary of toxicity of nitrotoluenes. Contract no. DAMD17-74-C-4073. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A080 146/4.

*Army. 1981a. Analytical method for concentration of trace organics from water. Aberdeen, MD: U.S. Army Toxic and Hazardous Materials Agency. Document no. AD-A101 639.

*Army. 1981b. Identification or development of chemical analysis methods for plants and animal tissues. Contract no. DAAK11-79-C-0110. Aberdeen Proving Ground, MD: U.S. Army Toxic and Hazardous Materials Agency. Document no. AD-A1073469.

Army. 1981c. Rotating biological contactors for munitions wastewater treatment. Report no. 2319. Aberdeen Proving Ground, MD: Chemical Systems Laboratory. Document no. AD-A100437.

*Army. 1981d. Species differences in the disposition and metabolism of 2,4,6-trinitrotoluene as a function of route of administration. Final report. Contract no. DAMD-17-76-C-6066. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A1 14025.

8. REFERENCES

- Army. 1981e. Thirteen week oral (diet) toxicity study of trinitrotoluene (TNT), hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and TNT/RDX mixtures in the Fischer 344 rat. Final report. Contract no. DAMD-17-79-C-91 61. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A108 447.
- Army. 1982. 2,4,6-Trinitrotoluene - surfactant complexes, biodegradability, mutagenicity and soil leaching studies. Report no. NATICK/TR-82/006. Aberdeen Proving Ground, MD: U.S. Army Toxic and Hazardous Material Agency. Document no. AD-A1 13727.
- Army. 1983a. Determination of the chronic mammalian toxicological effects of TNT (twenty-six week chronic toxicity/carcinogenicity study of trinitrotoluene (TNT) in the beagle dog). Final report: Phase II. Contract no. DAMD17-79-C-9120. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A157 082.
- *Army. 1983b. HPLC analysis of HMX, TAX, RDX, and TNT in wastewater. Frederick, MD: U.S. Medical Bioengineering Research and Development Laboratory, Fort Detrick. Document no. ADA127348.
- Army. 1984a. Determination of the chronic mammalian toxicological effects of TNT (twenty-four month chronic toxicity/carcinogenicity study of trinitrotoluene (TNT) in the Fischer 344 rat). Final report: Phase III. Contract no. DAMD17-79-C-9120. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A168 637.
- Army. 1984b. Determination of the chronic mammalian toxicological effects of TNT (twenty-four month chronic toxicity/carcinogenicity study of trinitrotoluene (TNT) in the B6C3F1 hybrid mouse). Final report: Phase IV. Contract no. DAMD17-79-C-9120. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A168 754.
- *Army. 1985a. Effects of environmental factors on the transformation of 2,4,6-trinitrotoluene in soils. Report no. NATICK/TR-85/052. Aberdeen Proving Ground, MD: U.S. Army Toxic and Hazardous Materials Agency. Document no. AD-A157812.
- *Army. 1985b. Reverse phase HPLC method for analysis of TNT, RDX, HMX, and 2,4-DNT in munitions wastewater. Report no. CRREL84-29. Aberdeen Proving Ground, MD: U.S. Army Toxic and Hazardous Materials Agency, Technology Division.
- *Army. 1985c. TNT, RDX and HMX explosives in soils and sediments: Analysis techniques and drying losses. Aberdeen, MD: U.S. Army Toxic and Hazardous Materials Agency. Document no. AD-A163 278.
- *Army. 1986a. Composting explosives/organics contaminated soils. Contract no. DAAK1 1-84-C-0057. Aberdeen, MD: U.S. Army Toxic and Hazardous Materials Agency. Document no. AD-A169 994.

8. REFERENCES

Army. 1986b. Database assessment of pollution control in the military explosives and propellants production industry. Contract no. PO-83PP3802. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. 29.

*Army. 1986c. Data summary for trinitrotoluene. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A199 118.

Army. 1986d. Demilitarization of conventional ordnance: Priorities for data-base assessments of environmental contaminants. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A182 922.

Army. 1986e. Demilitarization of conventional ordnance: Priorities for data base assessments of environmental contaminants. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD UCRL-15902.

*Army. 1987a. Adsorption and desorption of 2,4,6-trinitrotoluene by soils. Technical report EL-87-17. Washington, DC: Department of the Army.

Army. 1987b. Conventional weapon demilitarization: A health and environmental effects data base assessment: Explosives and their co-contaminants. Final report: Phase 2. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A220588.

*Army. 1987c. Development of an analytical method for explosive residues in soil. Report 87-7. Report no. AMXTH-TE-FR-86102. Aberdeen Proving Ground, MD: Army Toxic and Hazardous Materials Agency, Technology Division.

*Army. 1987d. Water quality criteria for 2,4,6-trinitrotoluene (TNT). Final report. Report no. ORNL-6304. Frederick, MD: US Army Medical Research and Development Command, Fort Detrick. Document no. AD-A1 8895 1.

Army. 1988a. Conventional weapons demilitarization: A health and environmental effects data base assessment: Methods for estimating multi-pathway exposures to environmental contaminants. Final report: Phase 2. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A211656.

*Army. 1988b. Soil sorption and plant uptake of 2,4,6-trinitrotoluene. Report no. TR/EL-88-12. Project no. 4A161101A91D. Washington, DC: Department of the Army, Assistant Secretary of the Army, U.S. Army Biomedical Research and Development.

*Army. 1989a. An evaluation of the environmental fate and behavior of munitions material (TNT, RDX) in soil and plant systems: Environmental fate and behavior of TNT. Project no. 88PP8853. Frederick, MD: U.S. Army Medical Research and Development Command, Fort Detrick. Document no. AD-A223 546/3.

*Army. 1989b. Validation of a sorbent tube/high performance liquid chromatographic procedure for the determination of eight explosives in water. Aberdeen Proving Ground, MD: U.S. Army

8. REFERENCES

Environmental Hygiene Agency, U.S. Army Toxic and Hazardous Material Agency. Document no. ADA210777.

*Army. 1990a. Development of a simplified field method for the determination of TNT in soil, Special report 90-38. Report no. CETHA-TS-CR-90125. Aberdeen Proving Ground, MD: U.S. Army Toxic and Hazardous Materials Agency.

*Army. 1990b. Evaluation of a field kit for detection of TNT in water and soils. Special report 90-20. Report no. CETHA-TE-CR-90056. Aberdeen Proving Ground, MD: U.S. Army Toxic and Hazardous Materials Agency.

Army. 1990c. TNT metabolites in animal tissues. Quarterly technical progress report no. 6, January 1-March 31, 1990. Report no. ORNL-M-1142. Contract no. 88PP8866. Frederick, MD: US. Army Biomedical Research and Development Laboratories, Fort Detrick. Document no. DE90-011273.

*Ashby J, Burlinson B, Levre PA, et al. 1985. Non-genotoxicity of 2,4,6-trinitrotoluene (TNT) to the mouse bone marrow and the rat liver: Implications for its carcinogenicity. *Arch Toxicol* 58:14-19.

Asplund J. 1986. Differential pulse polarographic analysis of powders and explosives. *Propellants Explosives and Pyrotechnology* 11(3):69-80.

Assa S, Weisselberg S, Steir M. 1987. Elevated serum enzyme levels in exposure to trinitrotoluene. *Harefuah, Journal of the Israel Med Assoc* 113(1-2):Summaries.

Atkinson R, Tuazon EC, Wallington TJ, et al. 1987. Atmospheric chemistry of aniline, n,n,-dimethylaniline, pyridine, 1,3,5-triazine, and nitrobenzene. *Environ Sci Technol* 21:64-72.

Aust SD. 1990. Degradation of environmental pollutants by phanerochaete chrysosporium. *Microbial Ecology* 20(2):197-210.

Bailey HC. 1982. Development and testing of a laboratory model ecosystem for use in evaluating biological effects and chemical fate of pollutants. In: Pearson JG, Foster RB, Bishop WE, eds. *Aquatic toxicology and hazard assessment, Fifth Symposium, ASTM STP802*. Philadelphia, PA: American Society for Testing and Materials, 221-233.

Bailey HC, Spanggord RJ. 1983. The relationship between the toxicity and structure of nitroaromatic chemicals. In: Bishop WE, Cardwell RD, Heidoph BB, eds. *Aquatic toxicology and hazard assessment, Sixth Symposium, ASTM STP802*. Philadelphia, PA: American Society for Testing and Materials, 98-107.

Bajpayee TS, Mainiero RJ. 1988. Methods of evaluating explosive reactivity of explosive-contaminated solid waste substances. *Bur Mines Rep Invest* RI9217:9.

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

8. REFERENCES

- Basch A, Kraus S. 1979. Analysis and characterization of military-grade trinitrotoluene by gas chromatography. *J Forensic Sci* 24(4):870-874.
- *Bauer CF, Grant CL, Jenkins TF. 1986. Interlaboratory evaluation of high-performance liquid chromatographic determination of nitroorganics in munition plant wastewater. *Anal Chem* 58(1):176-182.
- *Bauer CF, Koza SM, Jenkins TF. 1990. Liquid chromatographic method for determination of explosives residues in soil: Collaborative study. *J Assoc Off Anal Chem* 73(4):541-552.
- Bearman JC, Castling RL, Skelton RL. 1983. The fluid bed incineration of the waste red liquor from the ROF Bridgwater TNT plant. *Inst Chem Eng Symp Ser* 69:273-283.
- *Belkin F, Bishop RW, Sheely MV. 1985. Analysis of explosives in water by capillary gas chromatography. *J Chromatogr Sci* 23(12):532-534.
- Bell BA, Burrows WD. 1989. Removal and degradation of TNT in a semicontinuous activated sludge system. *Hazardous Industrial Waste* 21:344-356.
- Berberich DW, Yost RA, Fetterolf DD. 1988. Analysis of explosives by liquid chromatography/thermospray/mass spectrometry. *J Forensic Sci* 33(4):946-959.
- Bhattacharyya D, Garrison KA, Grieves RB. 1977a. Membrane ultrafiltration for treatment and water reuse of TNT-manufacturing wastes. *J Water Pollut Control Fed* 49(5):800-808.
- Bhattacharyya D, Garrison KA, Grieves RB. 1977b. Membrane ultrafiltration of nitrotoluenes from industrial wastes. *Proc Ind Waste Conf* 31:139-149.
- *Bishop RW, Rinehart DS, Ayers TA. 1981. The use of a solid sorbent as a collection medium for TNT and RDX vapors. *Am Ind Hyg Assoc J* 42(8):586-589.
- *Bishop RW, Kennedy JL, Podolak GE, et al. 1988. A field evaluation of air sampling methods for TNT and RDX. *Am Ind Hyg Assoc J* 49(12):635-638.
- Bogatyrev O. 1973. Influence of aromatic nitrated hydrocarbons on the activated sludge process. *Acta Hydrochim Hydrobiol* 1(5):455-460.
- Boileau J, Fauquignon C, Napoly C. 1987. Explosives. In: *Ullmann's encyclopedia of industrial chemistry*. 5th ed., A10, 143-172.
- *Bongiovanni R, Podolak GE, Clark LD, et al. 1984. Analysis of trace amounts of 6 selected poly-nitro compounds in soils. *Am Ind Hyg Assoc J* 45(4):222-226.

8. REFERENCES

*Boopathy R, Kulpa CF. 1992. Trinitrotoluene (TNT) as a sole nitrogen source for a sulfate-reducing bacterium *Desulfovibrio* sp. (B Strain) isolated from an anaerobic digester. *Current Microbiology* 25:235-241.

Boublik T, Fried V, Hala E, eds. 1984. The vapor pressures of pure substances: Selected values of the temperature dependence of the vapour pressures of some pure substances in the normal and low pressure region. Amsterdam, The Netherlands: Elsevier, Vol. 17.

Bowermaster J, McNair HM. 1983. Detection of explosive residues by microbore HPLC. In: Proceedings of the International Symposium for the Analytical Detection of Explosives, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 321-327.

Bratin K, Kissinger PT, Briner RC, et al. 1981. Determination of nitro aromatic, nitramine, and nitrate ester explosive compounds in explosive mixtures and gunshot residue by liquid chromatography and reductive electrochemical detection. *Anal Chim Acta* 130(2):295-311.

Bringmann G, Keuhn R. 1971. Biological decomposition of nitrotoluenes and nitrobenzenes by azotobacter agilis. *Gesundh Ing* 92:273-276.

*Bronstein AC, Currance PL. 1988. Emergency care for hazardous materials exposure. St. Louis, MO: The C.V. Mosby Company, 85-86.

*Budavari S, O'Neil MJ, Smith A, et al. 1989. The Merck index: An encyclopedia of chemicals, drugs, and biologicals. Eleventh edition. Rahway, NJ: Merck and Co., Inc., 1530-1531.

Bulich AA, Isenberg DL. 1980. Use of the luminescent bacterial system for the rapid assessment of aquatic toxicity. *Advanced Instrumentation* 35:35-40.

Bulich AA, Isenberg DL. 1981. Use of the luminescent bacterial system for the rapid assessment of aquatic toxicity. *ISA Trans* 20(1):29-33.

*Burlinson NE. 1980. Fate of TNT in an aquatic environment: photodecomposition vs. biotransformation. Naval Surface Weapons Center, NSWC TR 79-445. Document no. AD B045846.

*Burns DT, Eltayeb MA-Z, Flockhart BD. 1987. Identification and determination of aromatic nitro compounds by electron spin resonance spectrometry. *Analytica Chimica Acta* 200(1):481-490.

Burrows WD, Chyrek RH, Noss CI, et al. 1984. Treatment for removal of munition chemicals from Army industrial wastewaters. *Toxic Hazard Wastes Proc Mid-Atl Ind Waste Conf* 16:331-342.

Carotti A, Thomas JC. 1976. How the Army does a bang-up job of treating effluents. *Environ Sci Technol* 10(8):751-756.

Carpenter DF, McCormick NG, Cornell JH, et al. 1978. Microbial transformation of ¹⁴C-labeled 2,4,6-trinitrotoluene in an activated-sludge system. *Appl Environ Microbiol* 35(5):949-954.

8. REFERENCES

- Carper WR, Dorey RC, Tomer KB, et al. 1984. Mass spectral fragmentation pathways in 2,4,6-trinitrotoluene derived from a MS/MS unimolecular and collisionally activated dissociation study. *Organic Mass Spectrometry* 19(12):623-626.
- Carrazza J, Pregun E, Chandler C, et al. 1985. Treatment of wastewater (red water) resulting from TNT (trinitrotoluene) purification. In: *Proceedings of the Environmental Systems Symposium (13th) Held at Bethesda, Maryland on 20-22 March 1984*, 179-197.
- Carroll JW, Guinivan TL, Tuggle RM, et al. 1979. Assessment of hazardous air pollutants from disposal of munitions in a prototype fluidized bed incinerator. *Am Ind Hyg Assoc J* 40(2):147-158.
- Carver FWS, Wyndham DP, Sinclair TJ. 1985. Spectroscopic studies of explosives: II. Detection of nitro-compounds on silica gel and glass with a Raman micro-probe. *J Raman Spectrosc* 16(5):332-336.
- Catran DE, Stanford TB, Graffeo AP. 1963. Quantification of the munitions HMX, RDX, and TNT in waste water by liquid chromatography. U.S. Patent no. 4252537 02/24/81. Washington, D.C.: Secretary of the Army.
- CELDS. 1991. Computer-Environmental Legislative Data Systems. University of Illinois, Urbana, IL. June 20, 1991.
- Chambers CW, Tabak HH, Kabler PW. 1963. Degradation of aromatic compounds by phenol-adapted bacteria. *J Water Pollut Contr Fed* 35(12):1517-1528.
- *Channon HJ, Mills GT, Williams RT. 1944. The metabolism of 2,4,6-trinitrotoluene (alpha-TNT). *Biochem J* 38:70-85.
- Chen TH, Campbell C, Fisco W. 1980. Characterization of pollutants at Army ammunition plants. *Internationale Jahrestagung-Fraunhofer-Institut fuer Treib-Explosivstoffe (Mess-Pruefmethoden Treib-Sprengst)*:613-635.
- *Chrostowski JE, Holmes RN, Rehn BW. 1976. The collection and determination of ethylene glycol dinitrate, nitroglycerine, and trinitrotoluene explosive vapors. *J Forensic Sci* 21(3):611-615.
- Copisarow M. 1915. Trinitrotoluene. *Chem News* 112(2921):247-248.
- Crosby WH. 1981. Reticulocyte counts. *Arch Intern Med* 141:1747-1748.
- Cumming AS, Park KP. 1983. The analysis of trace levels of explosive by gas chromatography/mass spectrometry. In: *Proceedings of the International Symposium for the Analytical Detection of Explosives*, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 259-265.
- Cumming AS, Park KP, Clench MR. 1983. The analysis of post-detonation carbon residues by mass spectrometry. In: *Proceedings of the International Symposium for the Analytical Detection of*

8. REFERENCES

Explosives, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 235-239.

Davenport R, Johnson LR, Schaeffer DJ, et al. 1994. Phototoxicology: 1. Light-enhanced toxicity of TNT and some related compounds to *Daphnia magna* and *Lytechinus variagatus* embryos. *Ecotoxicology and Environmental Safety* 27: 14-22.

Dilley JV, Tyson CA, Spangford RJ, et al. 1982a. Short-term oral toxicity of 2,4,6-trinitrotoluene and hexahydro-1,3,5-trinitro- 1,3,5-triazine mixture in mice, rats, and dogs. *J Toxicol Environ Health* 9(4):587-610.

*Dilley JV, Tyson CA, Spangford RJ, et al. 1982b. Short-term oral toxicity of 2,4,6-trinitrotoluene in mice, rats, and dogs. *J Toxicol Environ Health* 9(4):565-585.

Dionne BC, Rounbehler DP, Achter EK, et al. 1986. Vapor pressure of explosives. *J Energetic Materials* 4(1-4):447-472.

*Djerassi LS, Vitany L. 1975. A report on 3 cases of acute hemolytic disease in glucose-6-phosphate dehydrogenase deficient workers exposed to trinitrotoluene: Onset of the disease was within 2 or 4 days after start of exposure. *Br J Ind Med* 32(1):54-58.

Donnelly KC, Brown KW, Giam CS, et al. 1993. Acute and genetic toxicity of extracts of munitions wastewater contaminated soils. *Chemosphere* 27(8):1439-1450.

*DOT. 1989a. Hazardous materials table and hazardous materials communications regulations. U.S. Department of Transportation. Code of Federal Regulations. 49 CFR 172.101.

*DOT. 1989b. Hazardous materials table. U.S. Department of Transportation. Federal Regulations 54 (185):39501-39505.

Douse JMF. 1981. Trace analysis of explosives at the low picogram level by silica capillary column gas-liquid chromatography with electron-capture detection. *J Chromatogr* 208(1):83-88.

Douse JMF. 1982. Trace analysis of explosives in handswab extracts using amberlite XAD-7 porous polymer beads, silica capillary column gas chromatography with electron-capture detection and thinlayer chromatography. *J Chromatogr* 234(2):415-425.

*Douse JMF. 1985. Trace analysis of explosives at the low nanogram level in handswab extracts using columns of Amberlite XAD-7 porous polymer beads and silica capillary column gas chromatography with thermal energy analysis and electron-capture detection. *J Chromatogr* 328:155-165.

*Douse JMF. 1987. Improved method for the trace analysis of explosives by silica capillary column gas chromatography with thermal energy analysis detection. *J Chromatogr* 410(1):181-189.

8. REFERENCES

Douse JMF, Smith RN. 1986. Trace analysis of explosives and firearm discharge residues in the metropolitan police forensic science laboratory. *J Energetic Materials* 4(1-4): 169- 186.

Doyle RC, Isbister JD, Forgacs TW, et al. 1985. Composting explosives contaminated sediments. Proceedings of the American Defense Preparedness Association, 14th Environmental Systems Symposium, Oct. 23-25, 1985. Baltimore, MD: American Defense Preparedness Association, 40-44.

Dura G, Krasovski GN, Zholdakova ZI, et al. 1985. Prediction of toxicity using quantitative structure-activity relationships. *Arch Toxicol Suppl* 8:481-487.

Einisto P. 1991. Role of bacterial nitroreductase and o-acetyltransferase in urine mutagenicity assay of rats exposed to 2,4,6-trinitrotoluene (TNT). *Mutat Res* 262(3): 167-169.

*Einisto P, Watanabe M, Ishidate Jr. M, et al. 1991. Mutagenicity of 30 chemicals in *Salmonella typhimurium* strains possessing different nitroreductase of O-acetyltransferase activities. *Mutation Research* 259:95-102.

Eisenreich SJ, Looney BB, Thornton DJ. 1981. Airborne organic contaminants in the great lakes ecosystem. *Environ Sci Technol* 15:30-38.

*Ellenhorn NJ, Barceloux DG. 1988. Medical toxicology diagnosis and treatment of human poisoning. New York, NY: Elsevier Science Publishing Company, Inc., 35,845,1006.

*EPA. 1976a. Investigation of selected potential environmental contaminants: Nitroaromatics. Contract no. EPA 68-01-2999, EPA-560/2-76-010. Washington, D.C.: U.S. Environmental Protection Agency, Office of Toxic Substances. Document no. PB-2750278.

EPA. 1976b. State-of-the-art: Military explosives and propellants production industry. Volume III: Wastewater treatment. Report no. EPA-600/2-76-213c. Cincinnati, OH: US. Environmental Protection Agency, Office of Research Development, Industrial Environmental Research Laboratory. Document no. PB-265042.

*EPA. 1979a. Evaluation of the ultraviolet-ozone and ultraviolet-oxidant treatment of pink water. Contract no. IAG-D6-0059. Cincinnati, OH: U.S. Environmental Protection Agency, Industrial Environmental Research Lab. Document no. PB-300 763/0.

EPA. 1979b. Water-related fate: 129 Priority Pollutant. Vol. II: halogenated aliphatic hydrocarbons, halogenated ethers, monocyclic aromatics, phthalate esters, polycyclic aromatic hydrocarbons, nitrosamines and miscellaneous compounds. Contract no. 68-01-3852, 68-01-3867. Washington, D.C.: U.S. Environmental Protection Agency, Monitoring and Data Support Division. Document no. PB80-204381.

*EPA. 1982. Management of hazardous waste leachate. Contract no. 68-03-2766. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development.

8. REFERENCES

- EPA. 1987. Superfund record of decision: West Virginia ordnance works, Mason County, West Virginia. First remedial action. Washington, DC: U.S. Environmental Protection Agency. Document no. PB88-106455, Issue 02.
- EPA. 1988. Super-fund record of decision (EPA region 3): West Virginia ordnance works, Mason County, West Virginia, (second remedial action), September 1988. Report ISS EPA/ROD/R03-88/053. Washington, DC: U.S. Environmental Protection Agency. Document no. PB89-189468.
- EPA. 1989a. Drinking water health advisory for 2,4,6-trinitrotoluene. Washington, DC: Office of Drinking Water.
- *EPA. 1989b. Health advisory on 2,4,6-trinitrotoluene. Washington, DC: U.S. Environmental Protection Agency, Office of Drinking Water. ISS order no. PB90-273566.
- *EPA. 1989c. Treatability potential for EPA listed hazardous wastes in soil. Report no. EPA/600/S2-89/011. Ada, OK: U.S. Environmental Protection Agency, Robert S. Kerr Environmental Research Laboratory. Document no. PB89-166581.
- EPA. 1989d. Use of innovative freezing technique for in-situ treatment of contaminated soils. Cincinnati, OH: U.S. Environmental Protection Agency, Risk Reduction Engineering Laboratory. Document no. ISS EPA/600/9-89/072.
- *EPA. 1990a. Interim methods for development of inhalation reference doses. U.S. Environmental Protection Agency. EPA/600/8-90/066A.
- *EPA. 1990b. Lists of hazardous wastes. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 261.32, Subpart D.
- EPA. 1991. Land disposal restrictions for third schedule wastes. U.S. Environmental Protection Agency. Federal Register 55(21):3864-3928.
- EPA. 1994. Drinking Water Regulations and Health Advisories. Washington, D.C., Office of Water. Erickson ED, Johnson JH, Smith SR, et al. 1989. Study of the organic contaminants released to the environment during the disposal of rocket motors by burning. *J Hazardous Materials* 21(2): 161-176.
- *Eveleth WT, Kollonitsch V, eds. 1990. *Kline guide to the U.S. chemical industry*. Fairfield, NJ: Kline and Company, Inc., 106-109.
- Faust SD. 1975. Nonbiological degradation and transformations of organic pesticides in aqueous systems. *American Chemical Society Symposium Series* 18:572-595.
- *FEDRIP. 1989-1992. Reaction of organic compounds with soils. Washington, D.C.: U.S. Department of Agriculture/Cooperative State Research Service Federal Research In Progress Database, National Technical Information Service (NTIS).

8. REFERENCES

Feeney EC. 1979. Removal of organic materials from wastewaters with polymeric adsorbents. In: Prober R, Calmon C, Gold H, eds. Ion exchange for pollution control. Volume 2. Boca Raton, FL: CRC Press, Inc, 29-37.

Fellows RJ, Harvey SD, Cataldo DA, et al. 1990. Environmental fate and behavior of TNT and RDX in a soil/plant system. SETAC '90-Global Environmental Issues: Challenge for the '90s, Arlington, VA, November 11-15, 1990. Washington, D.C.: Society for Environmental Toxicology and Chemistry, P195.

*Feldes J, Levsen K. 1989. Reversed phase high performance liquid chromatographic determination with photodiode-array detection of nitroaromatics from former ammunition plants in surface waters. *J High Resolution Chromatography* 12(9):613-619.

*Feldes J, Levsen K, Volmer D, et al. 1990. Gas chromatographic and mass spectrometric determination of nitroaromatics in water. *J Chromatogr* 518(1):21-40.

Fernando T, Aust SD. 1991. Biodegradation of munition waste, TNT (2,4,6-trinitrotoluene), and RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine) by *Phanerochaete chrysosporium*. *American Chemical Society Symposium Series #468(Emerging Technologies in Hazardous Waste Management - 2)*:214-232.

*Fernando T, Bumpus JA, Aust SD. 1990. Biodegradation of TNT (2,4,6-trinitrotoluene) by *Phanerochaete chrysosporium*. *Appl Environ Microbiol* 56(6): 1666- 1671.

*Fetterolf DD, Mudd JL, Teten K. 1991. An enzyme-linked immunosorbent assay (ELISA) for trinitrotoluene (TNT) residue on hands. *J Forensic Sci* 36(2):343-349.

Fine DA, Miles MH. 1983. The reduction of propylene glycol dinitrate, nitroglycerin, dinitrotoluene and trinitrotoluene on silver electrodes. *Anal Chim Acta* 153:141-147.

Fine DH, Yu WC, Goff EU. 1983. Applications of the nitro/nitroso specific detector to explosive residue analysis. In: Proceedings of the International Symposium for the Analytical Detection of Explosives, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 169-179.

*Fine DH, Yu WC, Goff EU, et al. 1984. Picogram analyses of explosive residues using the thermal energy analyzer (TEA). *J Forensic Sci* 29(3):732-746.

Fisco WA. 1975. A portable explosives identification kit for field use. *J Forensic Sci* 20(1):141-148.

*Fisher RH, Taylor JM. 1983. Munitions and explosive wastes. In: Parr JF, Marsh PB, Kla JM, eds. Land treatment of hazardous wastes. Park Ridge, NJ: Noyes Data Corporation, 297-303.

Flora SD. 1981. Study of 106 organic and inorganic compounds in the Salmonella/microsome test. *Carcinogenesis* 2(4):283-293.

8. REFERENCES

- Forsten I. 1980. Disposal of hazardous toxic munition waste. National Conference of Environmental Engineers, Proceedings of the ASCE Environmental Engineers Division Special Conference, 440-452.
- Foussereau J, Benezra C, Maibach HI, et al. 1982. Army arsenals: Occupational contact dermatitis, clinical and chemical aspects. Philadelphia, PA: W. B. Saunders Company, 171-176.
- *Freeman DJ. 1985. Continuous fixation and removal of explosive wastes from pink water using surfactant technology. Proc Ind Waste Conf 40:659-676.
- *Freeman DJ, Colitti OA. 1982. Removal of explosives from load-assemble-pack wastewater (pink water) using surfactant technology. Proc Ind Waste Conf 36:383-394.
- Funk SB, Roberts DJ, Crawford DL, 1993. Initial-phase optimization for bioremediation of munition compound-contaminated soils. Applied and Environmental Microbiology, July 1993, 2171-2177.
- *Garfinkel D, Sidi Y, Steier M, et al. 1988. Liver cirrhosis and hepatocellular carcinoma after prolonged exposure to TNT: Causal relationship or mere coincidence? Med Intern 26(4):287-290.
- Germanov AI, Zakharova AI. 1974. [Metabolism of vitamin b12 in patients with chronic trinitrotoluene poisoning.] Gig Tr Prof Zabol 18(1):42-44. (Russian)
- Geshev G. 1967. Changes in the menstrual cycle of females working with trinitrotoluene (TNT)[abstract]. Parva Nacionalna Koferencia Na Aspirantite. April 1967, 159-262.
- Geshev G, Kincheva V. 1974. Chromosomal changes in rats after trinitrotoluene treatment. Probl Akush Ginekol 2:111-114.
- *Gibbs TR, Popolato A, eds. 1980. LASL explosive property data. Berkeley, CA: University of California Press, 163- 171.
- Gibson DG, Doran JH, Traill TA, et al. 1978. Regional abnormalities of left ventricular wall movement during isovolumic relaxation in patients with ischemic heart disease. Eur J Cardiol 7(Suppl):251-264.
- Glaser JA. 1990. Hazardous waste degradation by wood degrading fungi. In: Kamely D, Chakrabarty A, Omenn GS, eds. Advances in applied biotechnology series. Vol. 4: Biotechnology and biodegradation, International Workshop, Lisbon, Portugal, June 1989.
- Glaser JA, Sferra PR. 1987. White rot fungus detoxification research: Status and direction. Second International Conference On New Frontiers for Hazardous Waste Management, September 27-30, 1987. Pittsburg, PA: Hazardous Waste Engineering Research Laboratory, 277-284.
- *Goerlitz DF, Franks BJ. 1989. Use of on-site high performance liquid chromatography to evaluate the magnitude and extent of organic contaminants in aquifers. Ground Water Monit Rev 9(2):122-129.

8. REFERENCES

- Goh CL. 1984. Allergic contact dermatitis from tetryl and trinitrotoluene. *Contact Dermatitis* 10(2):108.
- *Goh CL. 1988. Erythema multiforme-like eruption from trinitrotoluene allergy. *Int J Dermatol* 27(9):650-651.
- *Goh CL, Rajan VS. 1983. Contact sensitivity to trinitrotoluene. *Contact Dermatitis* 9(5):433-434.
- *Goodwin JW. 1972. Twenty years handling TNT in a shell loading plant. *Am Ind Hyg Assoc J* 33(1):41-44.
- *Gosselin RE, Hodge HC, Smith RP. 1984. *Clinical toxicology of commercial products*. Fifth edition, Baltimore, MD: Williams and Wilkins, II-215, III-34.
- Gribova IA, Gabulgalimova RA, Dymova EG. 1983. [Changes in blood parameters after exposure to low concentrations of trinitrotoluene: A clinical and experimental study.] *Gig Tr Prof Zabol* (9):24-28. (Russian)
- Griest WH, Guzman C, Dekker M. 1989. Packed-column supercritical fluid chromatographic separation of highly explosive compounds. *Journal of Chromatography* 467(2):423-429.
- Gring DM. 1971. Biological effects of trinitrotoluene (TNT). *Diss Abstr Int B* 32(8): 113.
- Haas R, Stork G. 1989. [Conception for the investigation of contaminated munition plants: I. Investigation of former TNT plants and filling-stations.] *Fresenius Z Anal Chem* 335(7):839-846. (German)
- *Hable M, Stem C, Asowata C, et al. 1991. The determination of nitroaromatics and nitramines in ground and drinking water by wide-bore capillary gas chromatography. *J Chromatogr Sci* 29(4):131-135.
- *Haddad LM, Winchester JF, eds. 1990. *Clinical management of poisoning and drug overdose* second edition. Philadelphia, PA: W.B. Saunders Company, 85,285,300.
- Hall LH, Kier LB. 1986. Structure-activity relationship studies on the toxicities of benzene derivatives: II. An analysis of benzene substituent effects on toxicity. *Environ Toxicol Chem* 5(4):333-337.
- Hall LH, Kier LB, Phipps G. 1984. Structure-activity relationship studies on the toxicities of benzene derivatives: I. An additivity model. *Environ Toxicol Chem* 3(3):355-365.
- Hall LH, Maynard EL, Kier LB. 1989a. QSAR investigation of benzene toxicity to fathead minnow using molecular connectivity. *Environ Toxicol Chem* 8(9):783-788.
- Hall LH, Maynard EL, Kier LB. 1989b. Structure-activity relationship studies on the toxicity of benzene derivatives: III. Predictions and extension to new substituents. *Environ Toxicol Chem* 8(5):431-436.

8. REFERENCES

*Hamilton A, Hardy HL. 1974. Industrial toxicology. Third edition. Acton, MA: Publishing Sciences Group, Inc., 308, 319.

Hankenson K, Schaeffer DJ. 1991. Microtox assay of trinitrotoluene, diaminonitrotoluene, and dinitromethylaniline mixtures. Bull Environ Contam Toxicol 46(4):550-553.

Hao OJ, Phull KK, Chen JN. 1994. Wet oxidation of TNT red water and bacterial toxicity of treated waste. Water Resource. 28(2):283-290.

*Harkonen H, Karki M, Lahti A, et al. 1983. Early equatorial cataracts in workers exposed to trinitrotoluene. Am J Ophthalmol 95(6):807-810.

*Haroun LA, MacDonell MM, Peterson JM, et al. 1990. Multimedia assessment of health risks for the Weldon Spring site remedial action project. Proc A&WMA Annu Meet 83(4):19.

Hart ER. 1974. Subacute toxicity of RDX and TNT in dogs. Final report. Contract no. N00014-73-C-0162. Kensington, MD: Litton Bionetics, Inc.

Harvey SD, Fellows RJ, Cataldo DA, et al. 1990. Analysis of 2,4,6-trinitrotoluene and its transformation products in soils and plant tissues by high-performance liquid chromatography. J Chromatogr 518(2):361-374.

Hassman P. 1971. Correlation between Webster's reaction and values of 2,6-dinitro-4-aminotoluene in urine of workers with trinitrotoluene. Prac Lek 23(9):312-314.

*Hassman P, Hassmanova V. 1976. Exposure tests in trinitrotoluene workers. Sb Ved Pr Lek Fak Univ Karlovy 19(1):51-60.

Hassman P, Hassamanova V, Borovska D, et al. 1978a. [Neurological and psychiatric health status of workers processing trinitrotoluene for long periods of time.] Cesk Neurol Neurochir 41(6):372-379. (Czechoslovakian)

Hassman P, Hassamanova V, Borovsk D, et al. 1978b. [State of health in workers processing TNT for prolonged periods of time seen in terms of neurology and psychiatry.] Cesk Nuerol Neurochir 41:372-379. (Czechloslovakian)

*Hathaway JA. 1977. Trinitrotoluene: A review of reported dose-related effects providing documentation for a workplace standard. J Occup Med 19(5):341-345.

*Hathaway JA. 1985. Subclinical effects of trinitrotoluene: A review of epidemiology studies. In: Rickett DE, ed. Toxicity of nitroaromatic compounds. New York, NY: Hemisphere Publishing Corporation, 255-274.

*HAZDAT. 1991. Agency for Toxic Substances and Disease Registry (ATSDR), Atlanta, GA.

8. REFERENCES

- Heidelberger W. 1974. Incineration systems for the disposal of explosive and propellant waste materials. *Eng Bull Purdue Univ Eng Ext Ser* 145(Pt. 2):662-668.
- *Heller CA, Greni SR, Erickson ED. 1982. Field detection of 2,4,6-trinitrotoluene in water by ion-exchange resins. *Anal Chem* 54(2):286-289.
- *Heller CA, McBride RR, Ronning MA. 1977. Detection of trinitrotoluene in water by fluorescent ion-exchange resins. *Anal Chem* 49(14):2251-2253.
- *Hoffsommer JC, Rosen JM. 1972. Analysis of explosives in sea water. *Bull Env Cont Tox* 7:177-181.
- *Hoffsommer JC, Rosen JM. 1973. Hydrolysis of explosives in sea water. *Bull Environ Contam Toxicol* 10(2):78-79.
- Hogue C Jr, Brewster MA. 1991. The potential of exposure biomarkers in epidemiologic studies of reproductive health. *Environ Health Perspect* 90:261-270.
- Howard PH, Santodonato J, Durkin PR. 1982. Syracuse Research Corporation's approach to chemical hazard assessment. In: Conway RA, ed. *Environmental risk analysis for chemicals*. New York, NY: Van Nostrand Reinhold, 379-398.
- *Howard PH, Boethling RS, Jarvis WF, et al. 1991. *Handbook of environmental degradation rates*. Chelsea, MI: Lewis Publishers, 454-455.
- *HSDB. 1994. TNT. Hazardous Substances Data Bank. National Library of Medicine, National Toxicology Information Program, Bethesda, MD. May 1994.
- *IRIS. 1994. TNT. Integrated Risk Information Systems. Cincinnati, OH: U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office.
- *Isbister JD, Anspach GL, Kitchens JF, et al. 1984. Composting for decontamination of soils containing explosives. *Microbiologica* 7:47-73.
- Jain KK, Bryce AJ. 1978. Feasibility of munitions wastewater treatment by adsorption-oxidation. In: Cheremisinoff PN, Ellerbusch F, eds. *Carbon adsorption handbook*. Ann Arbor, MI: Ann Arbor Science Publishers, 661-686.
- Jenkins A. 1975. Method for the qualitative and quantitative detection of vapours from low volatility compounds. U.S. patent no. 38837390, 5/13/75.
- *Jenkins TF, Grant CL. 1987. Comparison of extraction techniques for munitions residues in soil. *Anal Chem* 59(9):1326-1331.

8. REFERENCES

- *Jenkins TP, Leggett DC, Grant CL, et al. 1986. Reversed-phase high-performance liquid chromatographic determination of nitroorganics in munitions wastewater. *Anal Chem* 58(1):170-175.
- *Jenkins TP, Walsh ME, Schumacher PW, et al. 1989. Liquid chromatographic method for determination of extractable nitroaromatic and nitramine residues in soil. *J Assoc Off Anal Chem* 72(6):890-899.
- Jerger DE, Chynoweth DP. 1976. The microbiological degradation m *Toxicol* 10(2):78-79.
- Jerger DE, Chynoweth DP. 1976. The microbiological degradation of 2,4,6-trinitrotoluene under anaerobic conditions. In: 82nd Annual Meeting of the American Society for Microbial, Atlanta, GA, USA, March 7-12, 1982. *Abstr Annu Meet Am Sot Microbial* 76:201,Q63.
- *Jian C, Seitz WR. 1990. Membrane for *in situ* optical detection of organic nitro compounds based on fluorescence quenching. *Anal Chim Acta* 237(2):265-271.
- *Jiang QG, Sun JG, Qin XF. 1991. The effects of trinitrotoluene toxicity on zinc and copper metabolism. *Toxicol Lett* 55(3):343-349.
- Johnson JG, Erickson ED, Ruven Smith S, et al. 1988a. Products from the detonation of trinitrotoluene and some other navy explosive in air and nitrogen: I. Low molecular weight gases. *J Hazardous Materials* 18(2):145-160.
- Johnson JH, Erickson ED, Ruven Smith S, et al. 1988b. Products from the detonation of trinitrotoluene and some other navy explosive in air and nitrogen: II. Polycyclic aromatic hydrocarbons. *J Hazardous Materials* 18(2):161-170.
- *Johnson LR, Davenport R, Balbach H, et al. 1994a. Phototoxicology: 2. Near-ultraviolet light enhancement of microtox assays of trinitrotoluene and aminodinitrotoluenes. *Ecotoxicology and Environmental Safety* 27:23-33.
- Johnson LR, Davenport R, Balbach H, et al. 1994b. Phototoxicology: 3. Comparative toxicity of trinitrotoluene and aminodinitrotoluenes to *Daphnia magna*, *Dugesia dorocephalu* and sheep erythrocytes. *Ecotoxicology and Environmental Safety* 27:34-49.
- Joyce TW, Chang HM, Caifant Y. 1989. Ligninases from white rot fungi can degrade hazardous chemicals. 197th American Chemical Society National Meeting, Dallas, Texas, USA, April 9-14, 1989. *Abstract Paper of the American Chemical Society* 197(0):Mbtd 17.
- Joyce TW, Chang HM, Vasudevan B, et al. 1987. Degradation of hazardous organics by the white rot fungus *Phanerochaete-chrysosporium*. 184th American Chemical Society National Meeting, New Orleans, Louisiana, USA. August 30-September 4, 1987. *Abstract Paper of the American Chemical Society* 194(0):Envr 217.

8. REFERENCES

Jurinski NG, Podolak GE, Hess TL. 1975. Comparison of analytical methods for trace quantities of 2,4,6-trinitrotoluene. *Am Ind Hyg Assoc J* 36(7):497-502.

Kanekar P, Godbole SH. 1981. Thin layer chromatographic (TLC) method for quantitative estimation of a-trinitrotoluene (a-TNT). *Biovigyanam* 7(2):115-119.

Kanekar P, Godbole SH. 1984. Microbial degradation of trinitrotoluene (TNT). *Indian J Environ Health* 26(2):89-101.

Kaplan DL. 1990. Biotransformation pathways of hazardous energetic organo-nitro compounds. In: Kamely D, Chakrabarty A, Omenn GS, eds. *Advances in applied biotechnology series*. Vol. 4: *Biotechnology and biodegradation*, International Workshop, Lisbon, Portugal, June 1989. Houston, TX: Gulf Publishing Co., 155-182.

Kaplan DL, Kaplan AM. 1982a. Composting industrial wastes biochemical consideration. *Biocycle* 23(3):42-44.

Kaplan DL, Kaplan AM. 1982b. Composting of 2,4,6-trinitrotoluene. In: 82nd Annual Meeting of the American Society for Microbiology, Atlanta, GA, March 7-12, 1982. *Abstr Annu Meet Am Soc Microbiol* 82: 193, N90.

*Kaplan DL, Kaplan AM. 1982c. Mutagenicity of 2,4,6-trinitrotoluene-surfactant complexes. *Bull Environ Contam Toxicol* 28(1):33-38.

Kaplan DL, Kaplan AM. 1982d. Separation of mixtures of 2,4,6-trinitrotoluene reduction products with liquid chromatography. *Anal Chim Acta* 136:425-428.

Kaplan DL, Kaplan AM. 1982e. Thermophilic biotransformations of 2,4,6-trinitrotoluene under simulated composting conditions. *Appl Environ Microbiol* 44(3):757-760.

Kaplan DL, Kaplan AM. 1982f. 2,4,6-Trinitrotoluene-surfactant complexes: Decomposition, mutagenicity, and soil leaching studies. *Environ Sci Technol* 16(9):566-571.

*Karasek PW, Denney DW. 1974. Detection of 2,4,6-trinitrotoluene vapours in air by plasma chromatography. *J Chromatogr* 93(1):141-147.

Karelin YA, Evseeva LA. 1974. Deep purification of waste waters by the adsorption method. *Vodosnabzh Sanit Tekh Iss* 12:12-14.

*Kayser EG, Burlinson NE. 1988. Migration of explosives in soil: Analysis of RDX, TNT, and tetryl from carbon-14 lysimeter study. *J Energetic Materials* 6(1-2): 45-71.

Keamey PC, Zeng Q, Ruth J. 1983. Oxidative pretreatment accelerates TNT metabolism in soil. *Chemosphere* 12(11/12):1583-1597.

8. REFERENCES

- Klausmeier RE, Osmon JL, Walls DR. 1984. The effect of trinitrotoluene on microorganisms. *Dev Ind Microbiol* 15:309-317.
- Klausmeier RE, Appelton JA, Dupre ES, et al. 1976. The enzymology of trinitrotoluene reduction. In: Sharpleys, goals, challenges, Gaithersburg, MD, Sept 28-Oct 1, 1987. *J Res Natl Bur Stand* 93(3):428-431.
- *Kolb G, Becker N, Scheller S, et al. 1993. Increased risk of acute myelogenous leukemia (AML) and chronic myelogenous leukemia (CML) in a county of Hesse, Germany. *Soz. Praventivmed* 38:190-195.
- *Kong L, Jiang Q, Qu Q. 1989. Formation of superoxide by trinitrotoluene in rat liver, brain, kidney, and testicle *in vitro* and monkey liver *in vivo*. *Biomedical and Environmental Sciences* 2:72-77.
- *Kraus DL, Henchy CD, Keirn MA, et al. 1985. US Department of Defense Superfund implementation at a former TNT manufacturing facility. 6th National Conference on Management of Uncontrolled Hazardous Waste Sites, Nov. 4-6. Washington DC, Silver Spring, MD: Hazardous Materials Control Research Institute.
- Lee YJ, Caspary WJ. 1983. Mathematical model of L5178Y mouse lymphoma forward mutation assay. *Mutat Res* 113:417-430.
- Leggett DC. 1977. Determination of 2,4,6-trinitrotoluene in water by conversion to nitrate: Letter. *Anal Chem* 49(6):880.
- *Leggett DC, Jenkins TF, Miyares PH. 1990. Salting-out solvent extraction for preconcentration of neutral polar organic solutes from water. *Anal Chem* 62(13): 1355-1356.
- Lemasters GK, Selevan SG. 1993. Toxic exposures and reproduction: A view of epidemiology and surveillance. In: *Reproductive toxicology and infertility*, 307-321.
- *Lemberg R, Callaghan JP. 1945. Metabolism of aromatic nitro compounds: 3. Isolation of reduction products of 2,4,6-trinitrotoluene from urine of rats and from human urine. *Aust J Exp Biol Med Sci* 23:13-20.
- Leventhal BG, Khan AB. 1985. Hematopoietic system. In: Karle Mottet N, ed. *Environmental pathology*. New York, NY: Oxford University Press, 344-355.
- *Levine BS, Furedi EM, Gordon DE, et al. 1984. Subchronic toxicity of trinitrotoluene in Fischer 344 rats. *Toxicology* 32(3):253-265.
- *Levine BS, Furedi EM, Gordon DE, et al. 1990a. Toxic interactions of the munitions compounds TNT and RDX in F344 rats. *Fundam Appl Toxicol* 15(2):373-380.
- *Levine BS, Rust JH, Barkley JJ, et al. 1990b. Six month oral toxicity study of trinitrotoluene in beagle dogs. *Toxicology* 63(2):233-244.

8. REFERENCES

- *Li GY, Wang T, Huggins Jr. EM, et al. 1992. Cholyglycine measured in serum by RIA and interleukin- 1 p determined by ELISA in differentiating viral hepatitis from chemical liver injury. JOM 34(9):930-933.
- *Li J, Jiang QG, Zhong WD. 1991. Persistent ethanol drinking increases liver injury induced by trinitrotoluene exposure: An in-plant case-control study. Human and Experimental Toxicology 10:405-409.
- Li W, Yang YX, Yang HF. 1989. TNT-degrading enzyme of *Citrobacter freundii* and its regulation by carbon and nitrogen source. Wei Sheng Wu Hsueh Pao 29(2):117-123.
- *Li Y, Jiang Q, Yao S, et al. 1993. Effects of exposure to trinitrotoluene on male reproduction. Biomedical and Environmental Sciences 6: 154-160.
- Linch AL. 1983. Nitro-compounds, aromatic. Encyclopedia of Occupational Health and Safety 2:1451-1454.
- Liu DHW, Bailey HC, Pearson JG. 1983a. Toxicity of a complex munitions wastewater to aquatic organisms. In: Bishop WE, Cardwell RD, Heidolph BB, eds. Aquatic toxicology and hazard assessment, Sixth Symposium, ASTM STP 802. Philadelphia, PA: American Society for Testing and Materials, 135- 150.
- *Liu DHW, Spangord RJ, Bailey HC, et al. 1983b. Toxicity of TNT wastewaters to aquatic organisms. Volume I: Acute toxicity of LAP wastewaters to 2,4,6-trinitrotoluene. Final report. Contract no. DAMD17-75-C-5056. Menlo Park, CA: Stanford Research Institute. Document no. ADA142-144.
- *Liu Y, Wei W, Wang M, et al. 1991. Simultaneous determination of the residues of TNT and its metabolites in human urine by thin-layer chromatography. J Planar Chromatogr 4:146-149.
- *Liu YY, Lu AYH, Steams RA, et al. 1992. *In vivo* covalent binding of [¹⁴C] trinitrotoluene to proteins in the rat. Chemical Biological Interactions 82: 1-19.
- *Lloyd JBF. 1983a. Clean-up procedures for the examination of swabs for explosive traces by highperformance liquid chromatography with electrochemical detection at a pendant mercury drop electrode. J Chromatogr 261(3):391-406.
- Lloyd JBF. 1983b. High-performance liquid chromatography of organic explosives components with electrochemical detection at a pendant mercury drop electrode. J Chromatogr 257(2):227-236.
- Lloyd JBF. 1985a. Adsorption characteristics of organic explosives compounds on adsorbents typically used in cleanup and related trace analysis techniques. J of Chromatography 328: 145-154.
- Lloyd JBF. 1985b. Microcolumn clean-up and recovery techniques for organic explosives compounds and for propellants traces in firearms discharge residues. J Chromatogr 330(1):121-129.

8. REFERENCES

*Lloyd JBF. 1991. Forensic explosive and firearms traces: Trapping of HPLC peaks for gas chromatography. *J Energetic Materials* 9(1-2): 1 - 17.

Lyman WJ, Reehl WF, Rosenblatt DH, et al. 1982. Handbook of chemical property estimation methods: Environmental behavior of organic compounds. New York, NY: McGraw-Hill Book Company, 5-10, 7-4, 15-15 - 15-29.

Lyter AH II. 1983. A high-performance liquid chromatographic (HPLC) study of seven common explosive materials. *J Forensic Sci* 28(2):446-450.

*Mabey WR, Tse D, Baraze A, et al. 1983. Photolysis of nitroaromatics in aquatic systems: 1. 2,4,6-Trinitrotoluene. *Chemosphere* 12(1):3-16.

Margalit Y, Abramovich-Bar S, Bamberger Y, et al. 1986. Analysis of explosives by nuclear magnetic resonance spectrometry. *J Energ Mater* 4(1-4):363-376.

Margolin BH, Kaplan N, Zeiger E. 1981. Statistical analysis of the Ames Salmonella/microsome test. *Proc Natl Acad Sci USA* 78(6):3779-3783.

Margolin BH, Kim BS, Risko KJ. 1989. The Ames Salmonella/microsome mutagenicity assay: Issues of inference and validation. *J Am Stat Assoc* 84(407):651-661.

*Mark HF, Othmer DF, Overberger CF, et al. 1980. Encyclopedia of chemical technology. 3rd edition, volume 9. New York, NY: John Wiley and Sons, 587-598.

*Martin DP, Hart ER. 1974. Subacute toxicity of RDX and TNT in monkeys. Contract no. N00014-73-C-0172, NR 108-985. Kensington, MD: Litton Bionetics.

*Maskarinec MP, Manning DL, Harvey RW, et al. 1984. Determination of munitions components in water by resin adsorption and high-performance liquid chromatography-electrochemical detection. *J Chromatogr* 302:51-63.

*McConnell WJ, Flinn RH. 1946. Summary of twenty-two trinitrotoluene fatalities in World War II. *J Ind Hyg Tox* 28:76-86.

McConnell EE, Solleveld HA, Swenberg JA, et al. 1986. Guidelines for combining neoplasms for evaluation of rodent carcinogenesis studies. *J Natl Cancer Inst* 76(2):283-289.

McCormick NG, Feeherry FE, Levinson HS. 1976. Microbial transformation of 2,4,6-trinitrotoluene and other nitroaromatic compounds. *Appl Environ Microbiol* 31(6):949-958.

McKone TE, Daniels JI. 1991. Estimating human exposure through multiple pathways from air, water, and soil. *Regul Toxicol Pharmacol* 13(1):36-61.

8. REFERENCES

- McKone TE, Layton DW. 1986a. Exposure and risk assessment of toxic waste in a multimedia context. In: Proceedings of the APCA Annual Meeting 79(Vol. 1), Minneapolis, MN, June 22-27, 1986. Pittsburgh, PA: Air Pollution Control Association, 1-15.
- *McKone TE, Layton DW. 1986b. Screening the potential risks of toxic substances using a multimedia compartment model: Estimation of human exposure. *Regul Toxicol Pharmacol* 6(4):359-380.
- McLuckey SA, Glish GL, Carter JA. 1985. The analysis of explosives by tandem mass spectrometry. *J Forensic Sci* 30(3):773-788.
- *McLuckey SA, Glish GL, Grant BC. 1988. Atmospheric sampling glow discharge ionization source for the determination of trace organic compounds in ambient air. *Analytical Chemistry* 60(20):2220-2227.
- Meyer KA Jr. 1989. Designing chemical soil characterization programs for mixed waste sites. In: Proc Symp Waste Manage. 2(Waste Manage, 1989):531-533.
- Mierzwinski A, Witkiewicz Z. 1989. The application of piezoelectric detectors for investigations of environmental pollution. *Environmental Pollution* 57: 18 1- 198.
- Miller CR, Mayer AS. 1989. Fate and effects of pollutants: Groundwater. *J Water Pollut Control Fed* 61(6):954-984.
- *Morton AR, Ranadive MV, Hathaway JA. 1976. Biological effects of trinitrotoluene from exposure below the threshold limit value. *Am Ind Hyg Assoc J* 37(1):56-60.
- Mul'menko AM, Martsinkevich GA. 1973. Metabolism of vitamins niacin and b6 in experimental trinitrotoluene poisoning. *Gig Tr Prof Zabol* 17(12):36-39.
- Murphy LJ, Siggia S, Uden PC. 1986. High-performance liquid chromatography of nitroaromatic compounds on an n-propylaniline-bonded stationary phase. *J Chromatogr* 366: 161- 170.
- *NAS/NRC. 1989. Biologic markers in reproductive toxicology. National Academy of Sciences/National Research Council. Washington, DC: National Academy Press, 15-35.
- NATICH. 1992. National Air Toxics Information Clearinghouse. Data base report on state, local, and EPA air toxics activities. Washington, D.C.: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. August 13, 1991.
- Naumova RP, Amerkhanova NN, Belousova TO. 1982a. Reductive transformation of aromatic nitro compounds by bacteria. *Mikrobiologiya* 51(5):735-739.
- Naumova RP, Amerkhanova NN, Zolotukhina LM. 1983. Characteristics of nitroreduction as the key stage in the microbial destruction of aromatic nitro compounds. *Prikl Biokhim Mikrobiol* 19(4):507-512.

8. REFERENCES

Naumova RP, Belousova TO, Gilyazova RM. 1982b. Microbial transformation of 2,4,6-trinitrotoluene. *Appl Biochem Microbiol* 18(1):85-90.

Naumova RP, Belousova TO, Gilyazova RM. 1982c. Transformation of 2,4,6-trinitrotoluene by microorganisms. *Prikl Biokhim Mikrobiol* 18(1):85-90.

Naumova RP, Ofitserov EN, Belousova TO, et al. 1986. Pathways of 2,4,6-trinitrotoluene biotransformation. *Izv Akad Nauk SSSR, Ser Biol* (3):448-455.

Naumova RP, Selivanovskaia SI, Cherepneva IE. 1988a. Transformation of 2,4,6-trinitrotoluene during oxygen and nitrate respiration in *Pseudomonas fluorescens*. *Prikl Biokhim Mikrobiol* 24(4):493-498.

Naumova RP, Selivanovskaia SI, Mingatina FA. 1988b. Possibilities for the deep bacterial destruction of 2,4,6-trinitrotoluene. *Mikrobiologiya* 57(2):218-222.

Navy. 1974a. Subacute toxicity of RDX and TNT in dogs. Contract no. N00014-73-C-0162. Arlington, VA: Office of Naval Research. Document no. AD-A035 717.

Navy. 1974b. Subacute toxicity of RDX and TNT in monkeys. Final report. Contract no. N00014-73-C-0162, NR 108-985. Arlington, VA: Office of Naval Research. Document no. AD-A044 650.

Navy. 1978. Biodegradability of TNT: A three-year pilot plant study. Report no. NSWC/WOL-TR-77-136. Silver Spring, MD: White Oak Lab, Naval Surface Weapons Center. Document no. AD-A06 1144.

*Nay MW Jr, Randall CW, King PH. 1972a. Factors affecting color development during the treatment of TNT waste. *Eng Bull Purdue Univ, Eng Ext Ser* 141(Pt. 2):983-993.

Nay MW Jr., Randall CW, King PH. 1972b. Factors affecting color development during treatment of TNT wastes. *Industrial Wastes* 18:20-29.

Nay MW Jr, Randall CW, King PH. 1974. Biological treatability of trinitrotoluene manufacturing wastewater. *J Water Pollut Control Fed* 46(3):485-497.

*NIOSH. 1973. The industrial environment its evaluation and control. National Institute for Occupational Safety and Health. Washington, DC.

*NIOSH. 1990. NIOSH pocket guide to chemicals hazards. Washington, DC: U.S. Department of Health and Human Service, Center for Disease Control, National Institute for Occupational Safety and Health, Division of Standard Development and Technology Transfer. NIOSH publication no. 90-117.

Nissenbaum A. 1975. The distribution of natural stable isotopes of carbon as a possible tool for the differentiation of samples of TNT. *J Forensic Sci* 20(3):455-459.

*NOES. 1992. National Occupational Exposure Survey: TNT. Cincinnati, OH: U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health.

8. REFERENCES

- Northrop DM, Martire DE, MacCrehan WA. 1991. Separation and identification of organic gunshot and explosive constituents by micellar electrokinetic capillary electrophoresis. *Anal Chem* 63(10):1038-1042.
- *OHM/TADS. 1985. TNT. Oil and Hazardous Material/Technical Assistance Data System. Chemical Information Systems, Inc., Baltimore, MD. December, 1985.
- Okamoto Y, Chou EJ, Croce M, et al. 1982. Removal of 2,4,6-trinitrotoluene (TNT) and 1,3,5-trinitro-1,3,5-triazacyclohexane (RDX) from aqueous solutions with surfactants. *Propellants Explosives and Pyrotechnology* 7(1): 18-21.
- Okamoto Y, Chou EJ, Wang J et al. 1977. The removal of 2,4,6-trinitrotoluene (TNT) from aqueous solution with surfactants. In: *Proceedings of the 1977 National Conference Treat Disposal Industrial Wastewaters Residues*, Houston, Texas, April 26-28, 1977. Rockville, MD: Information Transfer, Inc., 249-253.
- Okamoto Y, Wang JY, Chou EJ. 1978. Removal of trinitrotoluene from aqueous media. U.S. patent no. 4073726 2/14/78. Brooklyn, NY: Polytechnic Institute of New York.
- OSHA. 1987. Access to employee exposure and medical records. U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.20.
- OSHA. 1988. Access to employee exposure and medical records. U.S. Department of Labor, Occupational Safety and Health Administration. Federal Register 53:30163-30164.
- OSHA. 1989a. Toxic and hazardous substances. U.S. Department of Labor, Occupational Safety and Health Administration. Code of Federal Regulations. 29 CFR 1910.1000.
- OSHA. 1989b. Toxic and hazardous substances. U.S. Department of Labor, Occupational Safety and Health Administration. Federal Register 54:2920-2960.
- *Osmon JL, Klausmeier RE. 1973. The microbial degradation of explosives. *Dev Ind Microbiol* 14:247-252.
- Painter HA. 1986. Review of microbial transformation. *Comm Eur Communities (Eur J Environ Health)* 10388, Org Micro Pollut Aquat Environ):292-304.
- *Palazzo AJ, Leggett DC. 1986. Effect and disposition of TNT in a terrestrial plant. *J Environ Qual* 15(1):49-52.
- Parker LV, Jenkins TF. 1986. Suitability of polyvinyl chloride well casings for monitoring munitions in ground water. *Ground Water Monit Rev* 6(3):92-98.
- Parker RG, McOwen JM, Cherolis JA. 1975. Analysis of explosives and explosive residues. Part 2: Thin-layer chromatography. *J Forensic Sci* 20(2):254-260.

8. REFERENCES

Parmelee RW, Wenstel RS, Phillips CT, et al. 1993. Soil microcosm for testing the effects of chemical pollutants on soil fauna communities and trophic structure. *Environmental Toxicology and Chemistry* 12:1477-1486.

*Parrish FW. 1977. Fungal transformation of 2,4-dinitrotoluene and 2,4,6-trinitrotoluene. *Appl Environ Microbiol* 34(2):232-233.

Paterson JD. 1983. Trinitrotoluene. *Encyclopaedia of Occupational Health and Safety* 2:2218-2219.

Patterson JW. 1985. *Industrial wastewater treatment technology*. 2nd Edition. Stoneham, MO: Butterworth Publishers, 303-357.

*Patterson JW, Shapira NI, Brown J. 1977. Pollution abatement in the military explosives industry. *Proc Ind Waste Conf* 31:385-394.

*Pearson JG, Glennon JP, Barkley JJ, et al. 1979. An approach to the toxicological evaluation of a complex industrial wastewater. *ASTM Spec Tech Publ Iss STP 667, Aquat Toxicol* 284-301.

*Pella PA. 1976. Generator for producing trace vapor concentrations of 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, and ethylene glycol dinitrate for calibrating explosives vapor detectors. *Anal Chem* 48(11):1632-1637.

*Pella PA. 1977. Measurement of the vapor pressures of TNT, 2,4-DNT, and EGDN. *J Chemical Thermodynamics* 9:301-305.

*Pennington JC, Patrick WH Jr. 1990. Adsorption and desorption of 2,4,6-trinitrotoluene by soils. *J Environ Qual* 19(3):559-567.

Pereira WE, Short DL, Manigold DB. 1979. Isolation and characterization of TNT and its metabolites in groundwater by gas chromatograph-mass spectrometer-computer techniques. *Bull Environ Contam Toxicol* 21(4-5):554-562.

*Phung HT, Bulot MW. 1981. Subsurface investigation of metal sludge and explosive disposal pond areas. In: Conway RA, Malloy DC, eds. *Hazardous solid waste testing, First Conference*, ASTM STP 760. Philadelphia, PA: American Society for Test and Mat, 305-320.

*Powell DH, Shrods AL, Mousa JJ, et al. 1983. Use of detector ratios for contaminant screening by high-pressure liquid chromatography. In: *National Conference Manage Uncontrolled Hazard Waste Sites*, Washington, D.C., October 31-November, 1983. Silver Spring, MD: Hazardous Materials Control Research Institute.

Preslan JE, Hatrel BB, Emerson M, et al. 1993. An improved HPLC method for analysis of TNT and metabolites from compost and contaminated soils. *Journal of Hazardous Materials* 33(3):329-337.

*Richard JJ, Junk GA. 1986. Determination of munitions in water using macroreticular resins. *Anal Chem* 58(4):723-725.

8. REFERENCES

- Rickert DE. 1987. Metabolism of nitroaromatic compounds. *Drug Metab Rev* 18(1):23-53.
- Riddell RH, Mills TI. 1983. Analysis of explosives by HPLC-FTIR. In: Proceedings of the International Symposium on Analytical Detection of Explosives, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 289-307.
- Roberts DJ, Crawford DL. Anaerobic degradation of TNT. In: 91st General Meeting of the American Society for Microbiology, Dallas, Texas, May 5-9, 1991. Abstracts of the General Meeting of the American Society for Microbiology 91:303.
- *Rosenblatt DH. 1980. Toxicology of explosives and propellants. In: Kaye SM, ed. Encyclopedia of explosives and related items. Vol. 9. Dover, NJ: U.S. Army Armament Research and Development Command, 332-345.
- *Rosenblatt DH, Small MJ, Barkley JJ. 1973. Munitions production products of potential concern as waterborne pollutants - phase I. Report no. 73-07. Edgewood Arsenal, MD: U.S. Army Medical Environmental Engineering Research Unit.
- Rosenkrantz HS, Mermelstein R. Mutagenicity and genotoxicity of nitroarenes all nitro-containing chemicals were not created equal. *Mutation Research* 114:217-267.
- Ross RH, Hartley WR. 1990. Comparison of water quality criteria and health advisories for 2,4,6-trinitrotoluene. *Regul Toxicol Pharmacol* 11(2):114-117.
- Ryon MG, Ross RH. 1990. Water quality criteria for 2,4,6-trinitrotoluene. *Regul Toxicol Pharmacol* 11(2):104-113.
- *Ryan MG, et al. 1984. Database assessment of the health and environmental effects of munition production waste products. Final report. Report no. ORNL-6018. Document no. DE84-016512.
- Sampaolo A, Binetti R. 1989. Improvement of a practical method for priority selection and risk assessment among existing chemicals. *Regul Toxicol Pharmacol* 10(2): 183- 195.
- Sanotskii IV, Timofievskaya LA. 1980. [Need for an international list of standards for toxic substances in the air of work areas.] *Gig Tr Prof Zabol* 0 (6):47-50. (Russian)
- *Savolainen H, Tenhunen R, Harkonen H. 1985. Reticulocyte haem synthesis in occupational exposure to trinitrotoluene. *Br J Ind Med* 42(5):354-355.
- Sawsan SS, El-Ghazali MM, El-Batanouni MM, et al. 1987. Chromosomal aberrations among workers engaged in the explosives industry. In: Foa V, Emmett EA, Maroni M, et al, eds. Occupational and environmental chemical hazards: Cellular and biochemical indices for monitoring toxicity. New York, NY: Halsted Press, 466-472.
- *Sax NI, Lewis RJ SR. 1987. Hawley's condensed chemical dictionary. 11th Edition. New York, NY: Van Nostrand Reinhold Co., 1191.

8. REFERENCES

- *Schackmann A, Muller R. 1991. Reduction of nitroaromatic compounds by different (pseudomonas) species under aerobic conditions. *Applied Microbiology and Biotechnology* 34:809-813.
- Schulte GR, Hoehn RC, Randall CW. 1973. The treatability of a munitions-manufacturing waste with activated carbon. *Engineering Bulletin of Purdue University, Engineering Extended Series* 142(Pt. 1):150-162.
- Selavka CM, Krull IS. 1986. Liquid chromatography with photolysis - electrochemical detection for nitro-based high explosives and water gel formulation sensitizers. *J Energ Mater* 4(1-4):273-303.
- Selavka CM, Tontarski RE Jr, Strobel RA. 1987. Improved determination of nitrotoluenes using liquid chromatography with photolytically assisted thermal energy analysis (LC-PAT). *J Forensic Sci* 32(4):941-952.
- Selivanovskaia SI, Akhmetova DZ, Naumova RP. 1986. Final stages of the preliminary metabolism of 2,4,6-trinitrotoluene in *pseudomonas fluorescens*. *Mikrobiologiya* 55(6):1040-1041.
- Semmens MJ, Barnes D, O'Hara M. 1985. Treatment of an RDX-TNT waste from a munitions factory. *Proc Ind Waste Conf* 39:837-842.
- Sharma J. 1983. X-ray photoelectron spectroscopic (XPS) detection and identification of explosives residues. In: *Proceedings of the International Symposium of Analytical Detection of Explosives*, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 181-185.
- *Short RD, Lee CC. 1980. Effect of some nitrotoluenes on the biotransformation of xenobiotics in rats. *Experientia* 36(1):100-101.
- Shou J, Wu C, Zhuang Z. 1986. Effects of trinitrotoluene on hepatic mixed-function oxidase. In: *Fourth International Congress of Toxicology*, Tokyo, Japan, July 21-25, 1986. *Toxicol Lett (AMST)* 31(Suppl):177.
- Sierka RA. 1985. The high temperature treatment of trinitrotoluene (TNT) and cyclotrimethylenetrinitramine (RDX) with ozone and ultrasound. *Ozone: Sci and Eng* 6(4):275-290.
- *Small MJ, Rosenblatt DH. 1974. Munitions production products of potential concern as waterborne pollutants - phase II. Aberdeen Proving Ground, MD: Army Medical Bioengineering Research and Development Laboratory.
- Smith LL, Carrazza J, Wong K. 1982. Biological treatment for waste streams from propellants and explosives manufacturing. *J Hazardous Materials* 5(4):277-296.
- Smock LA, Stoneburner DL, Clark JR. 1976. The toxic effects of trinitrotoluene (TNT) and its primary degradation products on two species of algae and the fathead minnow. *Water Res* 10(6):537-543.

8. REFERENCES

- *Spalding RF, Fulton JW. 1988. Groundwater munition residues and nitrate near Grand Island, Nebraska. *J Contamination Hydrology* 2: 139-153.
- *Spanggord RJ, Suta BE. 1982. Effluent analysis of wastewater generated in the manufacture of 2,4,6-trinitrotoluene: 2. Determination of a representative discharge of ether-extractable components. *Environ Sci Technol* 16(4):233-236.
- *Spanggord RJ, Gibson BW, Keck RG, et al. 1982a. Effluent analysis of wastewater generated in the manufacture of 2,4,6-trinitrotoluene: 1. Characterization study. *Environ Sci Technol* 16(4):229-232.
- *Spanggord RJ, Mabey WR, Chou TW, et al. 1985. Environmental fate of selected nitroaromatic compounds in the aquatic environment. In: Rickert DE, ed. *Chemical industry institute of toxicology series: Toxicity of nitroaromatic compounds*. Washington, DC: Hemisphere publishing corporation, 15-34.
- *Spanggord RJ, Mortelmans KE, Griffin AF, et al. 1982b. Mutagenicity in *Salmonella typhimurium* and structure-activity relationships of wastewater components emanating from the manufacture of trinitrotoluene. *Environ Mutagen* 4(2):163-179.
- Spangler GE, Carrico JP, Campbell DN. 1985. Recent advances in ion mobility spectrometry for explosives vapor detection. *J Test Evaluation* 13(3):234-240.
- *Spangler GE, Carrico JP, Kim SH. 1983. Analysis of explosives and explosive residues with ion mobility spectrometry (IMS). In: *Proceedings of the International Symposium on Analytical Detection of Explosives*, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 267-282.
- Spiker JK, Crawford DL, Crawford RL. 1992. Influence of 2,4,6-trinitrotoluene (TNT) concentration on the degradation of TNT in explosive-contaminated soils by the white rot fungus *Phanerochaete chrysosporium*. *Applied and Environmental Microbiology*, Sept. 1992, 3199-3202.
- *St. John GA, McReynolds JH, Blucher WG, et al. 1975. Determination of the concentration of explosives in air by isotope dilution analysis. *Forensic Sci* 6(1-2):53-66.
- Stevanovic S, Mitrovic M. 1990. Calorimetric method for semiquantitative determination of nitroorganics in water. *Int J Environ Anal Chem* 40(1-4):69-76.
- *Stutz DR, Ulin MD. 1992. *Hazardous materials injuries a handbook for pre-hospital care*. Third edition, 328-329.
- *Styles JA, Cross MF. 1983. Activity of 2,4,6-trinitrotoluene in an in vitro mammalian gene mutation assay. *Cancer Lett* 20(1):103-108.

8. REFERENCES

- Sullivan Jr. JB. 1992. Cryogenics, oxidizers, reducing agents, and explosives. In: Sullivan Jr. JB, Krieger GR, eds. Hazardous materials toxicology clinical principles of environmental health. Baltimore, MD: Williams and Wilkins, 1192-1201.
- Swann RL, Laskowski DA, McCall PJ, et al. 1983. A rapid method for the estimation of the environmental parameters OctanoVwater partition coefficient, soil sorption constant, water to air ratio, and water solubility. In: Residue reviews. Volume 85. New York, NY: Springer-Verlag, 16-28.
- Tabak HH, Chambers CW, Kabler PW. 1964. Microbial metabolism of aromatic compounds: I. Decomposition of phenolic compounds and aromatic hydrocarbons by phenol-adapted bacterial. J Bacterial 87:910-919.
- Tamiri T, Zitrin S. 1986. Capillary column gas chromatography/mass spectrometry of explosives. J Energetic Material 4(1-4):215-237.
- Tamura RN, Garriott ML, Parton JW. 1990. Pooled inference across sexes for the in vivo micronucleus assay. Mutat Res 240:127-133.
- *Tan EL, Ho CH, Griest WH, et al. 1992. Mutagenicity of trinitrotoluene and its metabolites formed during composting. Journal of Toxicology and Environmental Health 36:163-175.
- Teir H, Grenquist-Norden B. 1990. Peripheral cataracts and trinitrotoluene exposure - follow-up-study. Grankulla, Finland: Institute for Occupational Health, Acta Ophthalmologica 68(S 195):49-5 1.
- Tenhunen R, Zitting A, Nickels J, et al. 1984. Trinitrotoluene-induced effects on rat heme metabolism. Exp Mol Pathol 40(3):362-6.
- Tian LX, Fu RN. 1986. Analysis of TNT, RDX and DNN in wastewater by using capillary column gas chromatography. Int Jahrestag Fraunhofer Inst Treib Explosivst 17(Anal Propellants Explos: Chem Phys Methods):63/1-63/9.
- *Traxler RW, Wood E, Delaney JM. 1974. Bacterial degradation of alpha-TNT. Developmental Industrial Microbiology 16:71.
- *TRI88. 1990. Toxic Chemical Release Inventory. National Library of Medicine, National Toxicology Information Program, Bethesda, MD.
- *Triegel EK, Kolmer JR, Ounanian DW. 1983. Solidification and thermal degradation of TNT waste sludges using asphalt encapsulation. In: National Conference on Management of Uncontrolled Hazard Waste Sites, Washington, D.C., October 31-November 2, 1983. Silver Spring, MD: Hazardous Materials Controls Research Institute, 270-274.
- Tsai TS. 1991. Biotreatment of red water - a hazardous-waste stream from explosive manufacture - with fungal systems. Hazardous Waste and Hazardous Material 8(3):231-244.

8. REFERENCES

Twibell JD, Turner SL, Smalldon KW, et al. 1984a. The persistence of military explosives on hands. *J Forensic Sci* 29(1):284-290.

Twibell JD, Wright T, Sanger DG, et al. 1984b. The efficient extraction of some common organic explosives from hand swabs for analysis by gas liquid and thin-layer chromatography. *J Forensic Sci* 29(1):277-283.

*USDOC. 1986. U.S. imports for consumption and general imports. Report no. FT246/annual 1985. Washington, DC: U.S. Bureau of the Census, U.S. Department of Commerce.

*Van Slyke SM, Scheibler ST, Williams KE, et al. 1985. Sampling and analytical techniques for air pollution source tests of incinerators of explosive materials. In: *Proceedings of the APCA 78th Annual Meeting (Vol. 6)*, Detroit, MI, June 16-21, 1985. Pittsburgh, PA: Air Pollution Control Association, 85 83.3.

Vigliani EC. 1968. Permissible levels of occupational exposure to airborne toxic substances: Sixth report of the joint ILO/WHO committee on occupational health. *World Health Organization Technical Report Series* 415:5-16.

*Vorbeck C, Lenke H, Fischer P, et al. 1994. Identification of a hydride-Meisenheimer complex as a metabolite of 2,4,6-trinitrotoluene by a *Mycobacterium* strain. *Journal of Bacteriology*, February 1994, 932-934.

Vouros P, Petersen BA, Colwell L, et al. 1977. Analysis of explosives by high performance liquid chromatography and chemical ionization mass spectrometry. *Anal Chem* 49(7):1039-1044.

Vysochin VI. 1987. Temporary disability in workers exposed to trinitrotoluene-containing explosives in open cuts of ore mining and beneficiation plants. *Gig Tr Prof Zabol* (12):40-44.

Waldron HA. 1979. Target organs: The blood. *J Soc Occup Med* 29(2):65-71.

Walsh ME, Jenkins TF. 1990. Liquid chromatographic separation of 2,4,6-trinitrotoluene and its principal reduction products. *Analytica Chimica Acta* 23 1(2):3 13-3 15.

Walsh JT, Chalk RC, Merritt C Jr. 1973. Application of liquid chromatography to pollution abatement studies of munition wastes. *Anal Chem* 45(7):1215-1220.

Wannlund J, DeLuca M. 1982. A sensitive bioluminescent immunoassay for dinitrophenol and trinitrotoluene. *Anal Biochem* 122(2):385-393.

Wannlund J, DeLuca M. 1983. Bioluminescent immunoassays. *Methods Enzymol* 92:426-432.

Wellington DR, Mitchell WR. 1991. *In Vitro* cytotoxicity of certain munition nitroaromatic compounds. *Chemosphere* 23(3):363-373.

8. REFERENCES

- *Whong WZ, Edwards GS. 1984. Genotoxic activity of nitroaromatic explosives and related compounds in *Salmonella typhimurium*. *Mutat Res* 136(3):209-215.
- Whong WZ, Speciner ND, Edwards GS, et al. 1980. Mutagenicity of polynitroaromatic explosives in microbial test systems. In: *Proceedings of the American Association for Cancer. Proc Amer Assoc Cancer Res Annu Meet* 21:195.
- Williams RT, Myler CA. 1991. Composting of explosives contaminated sediments. In: 91st General meeting of the American Society for Microbiology, Dallas, Texas, May 5-9, 1991. Abstract of the General Meeting of the American Society for Microbiology 91:302.
- *Williams RT, Ziegenfuss PS, Mohrman GB, et al. 1989. Composting of explosives and propellant contaminated sediments. In: Cole C, Long D, eds. *Proceedings of the 21st Mid-Atlantic Industrial Waste Conference, Hazardous Industrial Wastes*. Lancaster, PA: Technomic Publishers, 599-611.
- *Williams RT, Ziegenfuss PS, Sisk WE. 1992. Composting of explosives and propellant contaminated soils under thermophilic and mesophilic conditions. *Journal of Industrial Microbiology* 9: 137-144.
- *Won WD, DiSalvo LH, Ng J. 1976. Toxicity and mutagenicity of 2,4,6-trinitrotoluene and its microbial metabolites. *Appl Environ Microbiol* 31(4):576-580.
- Won WD, Heckly RJ, Glover DJ, et al. 1974. Metabolic disposition of 2,4,6-trinitrotoluene. *Appl Microbiol* 27(3):513-516.
- *Woollen BH, Hall MG, Craig R, et al. 1986. Trinitrotoluene: Assessment of occupational absorption during manufacture of explosives. *Br J Ind Med* 43(7):465-473.
- Yang Y, Yin P, Li W, et al. 1979. Bacteria transforming 2,4,6-trinitrotoluene (alpha-TNT) and their application. *Wei Sheng Wu Hsueh Pao* 19(4):408-415.
- Yang YX, Li WZ, Yin P, et al. 1986. Biological treatment for mixed TNT-RDX wastewater by screened bacteria strains. *Wei Sheng Wu Hsueh Pao* 26(1):53-59.
- Yinon J. 1983. Forensic applications of LC/MS. *J Mass Spectrometry and Ion Physics* 48:253-256.
- Yinon J, Hwang DG. 1984. Metabolic studies of explosives: I-E1 and CI mass spectrometry of metabolites of 2,4,6-trinitrotoluene. *Biomed Mass Spectrom* 11(11):594-600.
- Yinon J, Hwang DG. 1985a. Metabolic studies of explosives: II. High-performance liquid chromatography-mass spectrometry of metabolites of 2,4,6-trinitrotoluene. *J Chromatogr* 339(1): 127-37.
- *Yinon J, Hwang DG. 1985b. Metabolic studies of explosives: Part 3. Identification of urinary metabolites of 2,4,6-trinitrotoluene in rats by liquid chromatography-mass spectrometry. *Toxicol Lett* 26:205-209.

8. REFERENCES

Yinon J, Hwang DG. 1986a. Detection of TNT and its metabolites in body fluids of laboratory animals and in occupationally exposed humans. *J Energetic Material* 4(1-4):305-3 13.

*Yinon J, Hwang DG. 1986b. Metabolic studies of explosives: IV. Determination of 2,4,6-trinitrotoluene and its metabolites in blood of rabbits by high-performance liquid chromatography-mass spectrometry. *Journal of Chromatography* 375(1): 154-158.

*Yinon J, Hwang DG. 1986c. Metabolic studies of explosives: 5. Detection and analysis of 2,4,6-trinitrotoluene and its metabolites in urine of munition workers by micro liquid chromatography/mass spectrometry. *Biomed Chromatogr* 1(3): 123- 125.

*Yinon J, Hwang DG. 1987. Applications of liquid chromatography - mass spectrometry in metabolic studies of explosives. *J Chromatogr* 394(1):253-257.

*Yinon J, Laschever M. 1982. Direct-injection chemical ionization mass spectrometry of explosives in water. *Eur J Mass Spectrom Biochem Med Environ Res* 2(3-4):101-104.

Yinon J, Zitrin S. 1977. Processing and interpreting mass spectral data in forensic identification of drugs and explosives. *J Forensic Sci* 22(4):742-777.

Yu WC, Goff EU, Fine DH. 1983. Determination of nitrate esters, nitramines, nitroaromatics, and their metabolites in biological fluids and wastewater by gas and liquid chromatography with a nitro/nitroso specific detector. In: *Proceedings of the International Symposium on Analytical Detection of Explosives*, FBI Academy, March 29-31, 1983. Quantico, VA: Federal Bureau of Investigation, 329-340.

Zeiger E. 1987. Carcinogenicity of mutagens: Predictive capability of the Salmonella mutagenesis assay for rodent carcinogenicity. *Cancer Res* 47:1287-1296.

*Zepp RG, Schlotzhauer PF, Simmons MS, et al. 1984. Dynamics of pollutant photoreactions in the hydrosphere. *Fresebuye Z Anal Chem* 319: 119-125.

*Zhang Y, Seitz WR. 1989. Single fibre absorption measurements for remote detection of 2,4,6-trinitrotoluene. *Anal Chim Acta* 221(1):1-9.

*Zhang Y, Seitz WR, Grant CL, et al. 1989. A clear, amine-containing poly(vinyl chloride) membrane for in situ optical detection of 2,4,6-trinitrotoluene (TNT). *Anal Chim Acta* 217(2):217-227.

Zitrin S, Yinon J. 1976. Chemical ionization mass spectrometry of explosives. *Advances in Mass Spectrometry Biochemical Medicine* 1:369-381.

Zitting A, Szumanska G, Nichols J, et al. 1982. Acute toxic effects of trinitrotoluene on rat brain, liver and kidney: Role of radical production. *Arch Toxicol* 51:53-64.

