

VOLUME IV. SAMPLING AND ANALYSIS OF WASTE WATER (97 PAGES)

Contents:

Collection and Preservation of Samples.
 Spot Samplers and Their Use.
 Automatic Compositing Samplers.
 Absolute Density of Waste Water: Hydrometer Method.
 Absolute Viscosity of Waste Water: Glass Capillary Method.
 Acidity and Basicity of Refinery Waste Water.
 pH: Glass Electrode Method.
 Hardness.
 Solids: Total, Dissolved, Suspended, Settleable.
 Total and Dissolved Sulfides: Methylene Blue Colorimetric Method.
 Dissolved Hydrogen Sulfide: pH Method.
 Sulfides and Mercaptans: Electrometric Titration.
 Total Sulfur: Bromine Oxidation Gravimetric Method.
 Alkyl Phenols: Colorimetric Nitrosophenol Method.
 Phenolic Materials: 4-Aminoantipyrine Method.
 Phenolic Materials: Infrared Spectrometric Method.
 Color.
 Turbidity of Waste Waters: Jackson Candle Turbidimeter Method.
 Odor: Threshold Odor Number and Odor Quality.
 Dissolved Oxygen in Effluent: Manganous Reduction Method.
 Dissolved Oxygen: Alkaline Iodide-Azide Method.
 Biochemical Oxygen Demand: U.S. Mean Dilution Water Method.
 Chemical Oxygen Demand: Dichromate Reflux Method.
 Immediate Oxygen Demand.
 Immediate Chlorine Demand.
 Volatile and Nonvolatile Oily Material: Reflux Distillation-Extraction Method.
 Nonvolatile Oily Material: Flocculation-Extraction U-Tube Method.
 Volatile and Nonvolatile Oily Material: Infrared Spectrometric Method.
 Susceptibility to Oil Separation: STS Number.
 Ammonia Nitrogen: Nessler Reagent Method.
 Organic Nitrogen Kjeldahl Method.
 Chlorides.
 Fluorides.
 Iron.
 Manganese.
 Total Lead in Water and Water-Bottom Deposits.

VOLUME V. SAMPLING AND ANALYSIS OF WASTE GASES AND PARTICULATE MATTER (72 PAGES)

Contents:

Collection of Samples.
 Hydrocarbon Evaporation Losses From Oil and Water Separation Processes.
 Measurement of Gas Flow.
 Particulate Matter: Filtration Method.
 Particulate Matter: Impingement Method.
 Particulate Matter: Impaction Method.
 Aldehydes: Bisulfite Absorption Method.
 Ammonia: Kjeldahl and Nessler Reagent Methods.
 Carbon Monoxide and Carbon Dioxide: Absorption-Combustion Method.
 Hydrogen Cyanide and Cyanogen: Colorimetric Method.
 Hydrocarbons in the Atmosphere: Mass Spectrometer Freeze-Out Method.
 Hydrogen Chloride: Turbidimetric Method.
 Inorganic Fluorides: Absorption-Distillation Method.
 Nitrogen Oxides in Gaseous Combustion Products: Phenoldisulfonic Acid Method.
 Hydrogen Sulfide: Tutweiler Apparatus Method.
 Hydrogen Sulfide: Ammoniacal Cadmium Chloride Method.
 Hydrogen Sulfide and Mercaptans: Electrometric Titration Method.
 Total Sulfur Oxides: Acidimetric Method.
 Sulfur Dioxide and Sulfur Trioxide: Acidimetric Method.
 Sulfur Dioxide in the Atmosphere: Disulfitomercurate Method.