REVISED ORGANIC (TO) COMPENDIUM* METHODS
--DESCRIPTION AND APPLICABILITY--

March 1999

Compendium Method No.	Compendium Method Description	Applicability	Work to be Performed
TO-1	Tenex[R] GC adsorption and GC/MS analysis	Volatile, nonpolar organics (e.g., aromatic hydrocarbons, chlorinated hydrocarbons) having boiling points in the range of 80° to 200° C	No change
TO-2	Carbon molecular sieve adsorption and GC/MS analysis	Highly volatile, nonpolar organics (e.g, vinyl chloride, vinylidene chloride, benzene, toluene) having boiling points in the range of -15° to +120° C	No change
TO-3	Cryogenic trapping and GC/FID or ECD analysis	Volatile, nonpolar organics having boiling points in the range of -10° to +200° C	No change
TO-4A	High volume PUF sampling and GC/MS analysis	Pesticides	Update
TO-5	Dinitrophenylhydrazine liquid impinger sampling and HPL/UV analysis	Aldehydes and ketones	No change
TO-6	High performance liquid chromatography (HPLC)	Phosgene	No change
TO-7	Thermosorb/N adsorption	N-nitrosodimethylamine	No change
TO-8	Sodium hydroxide liquid impinger with high performance liquid chromatography	Cresol/phenol	No change
TO-9A	High volume PUF sampling with high performance gas chromatography/high resolution mass spectrometry (HRGC/HRMS)	Dioxin/furan/PCBs	Update
TO-10A	Low volume PUF sampling with gas chromatography/electron capture detector (GC/ECD) [ASTM D4861-94]	Pesticides	Update
TO-11A	Adsorbent cartridge followed by high performance liquid chromatography (HPLC) detection [ASTM D5197-92]	Formaldehyde (other aldehydes/ketones)	Update
TO-12	Cryogenic preconcentration and direct flame ionization detection (PDFID)	Non-methane organic compounds (NMOC)	No change
TO-13A	High Volume PUF adsorption with GC/MS analyses [ISO Method XXX; SOW Method 2]	Polynuclear aromatic hydrocarbons (PAHs)	Update
TO-14A	SUMMA[R] passivated canister sampling with GC/MS analysis [ASTM 5466-93]	Non-polar volatile organic compounds (VOCs)	Update
TO-15	SUMMA[R] passivated canister sampling with GC coupled to a MS or ion trap	Polar/non-polar volatile organic compounds	New
TO-16	Real-time monitoring by Fourier transform infrared spectroscopy (FTIR)	Volatile organic compounds	New
TO-17	Real-time or solid adsorbent sampling followed by MS or conventioal GC detectors	Volatile organic compounds	New

*All of EPA's Organic (TO) Compendium procedures (Revised TO Compendium January 1999) are available and posted on AMTIC.

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NEW COMPENDIUM OF METHODS FOR INORGANICS*

IO-1 Continuous Measurement of Suspended Particulate Matter (SPM) in Ambient Air

Overview

- IO-1.1 Continuous Monitoring of Ambient PM10 Concentration Using the Graseby Anderson PM10 Beta Attenuation Monitor
- IO-1.2 Determination of PM10 in ambient Air Using the Wedding and Associates Beta Gauge Automated Particle Sampler
- IO-1.3 Determination of PM10 in Ambient Air Using a Continuous TEOM^{R} Particulate Sampler

IO-2 Integrated Sampling of Suspended Particulate Matter (SPM)

Overview

- IO-2.1 Sampling of Ambient Air for Suspended Particulate Matter (SPM) Using High Volume (HV) Sampler
- IO-2.2 Sampling for Suspended Particulate Matter in Ambient Air Using a Dichotomous Sampler
- IO-2.3 Sampling of Ambient air for Suspended Particulate Matter <10 µm (PM10) Using Low Volume Partisol^{R} Sampler
- IO-2.4 Calculations, Standard Volume

IO-3 Chemical Species Analysis of Filter Collected SPM

Overview

- IO-3.1 Selection, Preparation and Extraction of Filter Material
- IO-3.2 Determination of Toxic Metals in Ambient Particulate Matter Using Atomic Absorption (AA) Spectrometry
- IO-3.3 Determination of Elements Captured on Filter Material and Analyzed by X-Ray Fluorescence (XRF) Spectroscopy
- IO-3.4 Determination of Metals Captured on Glass Fiber Filter and Analyzed by Inductively Coupled Plasma (ICP) Spectrometry
- IO-3.5 Determination of Metals Captured on Glass Fiber Filter and Analyzed by Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)
- IO-3.6 Analysis of Ambient Air Particles for Metals Using Proton Induced X-Ray Emission (PIXE) Spectroscopy
- IO-3.7 Determination of Elements Captured on Glass Fiber Filters and Analyzed by Neutron Activation Analysis (NAA) Gamma Spectroscopy

IO-4 Determination of Reactive Acidic And Basic Gases And Strong Acidity of Atmospheric Fine Particles In Ambient Air Using The Annular Denuder Technology

Overview

- IO-4.1 Determination of the Strong Acidity of Atmospheric Fine-Particulates (<2.5 µm) Using Annular Denuder Technology

- IO-4.2 Determination of Reactive Acidic and Basic Gases and Strong Acidity of Atmospheric Fine Particles in Ambient Air Using the Annular Denuder Technology

IO-5 Sampling And Analysis for Atmospheric Mercury

Overview

- IO-5 Sampling and Analysis for Vapor and Particle Phase Mercury in Ambient Air Utilizing Cold Vapor Atomic Fluorescence Spectrometry

*The current goal is to have EPA's Inorganic (IO) Compendium ready by early May 1999.