

FACULTY OF EARTH SCIENCE (FSB)

FSB LABORATORIES SERVICES

Water Sample Analysis

with MS ISO/IEC 17025:2017 ACCREDITED (for certain parameters)



Biological or Material Samples for SEM- EDS

Spectrophotometer, Atomic Absorption Spectroscopy (AAS), Scanning Electron Microscope (SEM), Energy Dispersive X-ray Spectroscopy (EDS), Multiparameter YSI



Bersama

CHEMICAL PARAMETER TESTING

 N_{2}

SO₄

-6

Cu

Mq

Cu

NO,

S

Ν,

SAMPLE TYPE: WATER

Sulfate** Nitrate Fluoride Chloride Ammoniacal Nitrogen **Total Nitrogen** Aluminium Cadmium Chromium (Hexavalent) Chromium (total) Copper Iron Lead Manganese Nickel Zinc **Total Solids Total Suspended** Solids **Total Dissolved** Solids **Suspended Solids Total Alkalinity** Turbidity **BOD 5 Day** COD

**with ISO Accreditation

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No

SO4

 Z_n

P

N Q

Zn

UV-VIS SPECTROPHOTOMETER DR6000 - HACH-



APPLICATION

Beverage
Drinking Water
Surface Water
Domestic Wastes
Industrial Water
Pharmaceutical

Power
Wastewater

DR6000 offers high speed wavelength scanning across the UV and Visible Spectrum, and comes with over 250 preprogrammed methods, which include the most common testing methods used today. With optional accessories allowing for high volume testing via a carousel sample changer and increased accuracy with a sample delivery system which eliminates optical difference errors, this instrument ensures you are ready to handle your wide-ranging water testing needs.

PARAMETER AVAILABLE

Chromium Sulfate** (Hexavalent & total) Nitrate Fluoride Copper Chloride Iron Ammoniacal Lead Nitrogen Manganese **Total Nitrogen Nickel** Aluminium **Suspended Solids** Cadmium **Total Alkalinity**



Drinking Water Surface Water Domestic Wastes Industrial Water Wastewater Sludge

AAS ATOMIC ABSORPTION SPECTROSCOPY (PinAAcle 900F)



Atomic spectroscopy is the technique for determining the elemental composition of an analyte by its electromagnetic or mass spectrum.

Performing atomic absorbtion spectroscopy requires a primary light source, an atom source, a monochromator, to isolate the specific wavelength of light to be measureda detector to measure the light accurately, electronics to process the data signal and a data signal a displayorting system to show the result.

APPLICATION

The instruments can be used in the followings area : Environmental field, industrial and biological monitoring, pharmaceutical, chemical, agriculture, materials science and geochemical/mining.

SAMPLE TYPE

- •Water (drinking water, mineral water, river water, underground water and wastewater)
- •Sludge
- Biological sample
- •Plant/herb extract
- Nutrition/food sample
- •Elemental
- analysis of materials

PARAMETER AVAILABLE

Ag, Al, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Zn

SEM-EDS SCANNING ELECTRON MICROSCOPE -ELEMENT DISPERSION SPECTROSCOPY



JSM-IT100 is a SEM enhanced EDS function by JOEI ltd. SEM provide detailed high resolution sample image and EDS is an analytical analysis used for element analysis or chemical characterization of a sample. A scanning electron microscope (SEM) scans a focused electron beam over a surface to create an image. The electrons in the beam interact with the sample, producing various signals that can be used to obtain information about the surface topography and composition.

APPLICATION

The instruments can be used in the followings area : Environmental field, industrial and biological monitoring, ecology, agriculture, materials science and geochemical/mining.



Metal/Mineral Biological specimen Textile/Polymers Glass/Semiconductors





