

Total Organic Carbon Analyser

Photo of Instrument:



Instrument Name	TOC(Total Organic Carbon Analyser)
Instrument Model & Serial No.	TOC-L CPH
Instrument Make	SHIMADZU
Category of Instrument	Characterisation and Testing Facility
Description of Instrument	A Total Organic Carbon (TOC) analyzer is a laboratory instrument used to measure the amount of carbon present in organic compounds in a water sample. The measurement is expressed as the concentration of carbon in parts per million (ppm) or milligrams per litre (mg/L).
Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)	<p>Combustion Method: TOC analyzers use a combustion method where the organic carbon in the sample is oxidized into carbon dioxide (CO₂) by heating the sample in the presence of a catalyst. The produced CO₂ is then measured to determine the TOC content.</p> <p>Detection Techniques: The most common detection method for TOC analysis involves measuring the generated CO₂ either by infrared (IR) absorption or non-dispersive infrared (NDIR) detection.</p> <p>Reporting and Data Handling: TOC analyzers typically provide results in terms of parts per million (ppm) or parts per billion (ppb) of organic carbon.</p>

Department of Chemical Engineering, NIT Calicut

Application of Instrument (Limited to Major 4 or 5)	<ul style="list-style-type: none"> • Environmental monitoring • Water quality assessment • Pharmaceutical Industry • Semiconductor Industry
Type of Sample Required for Analysis/Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions	TOC analyzers are versatile and can be used to analyze a wide range of liquid samples, including drinking water, wastewater, surface water, and industrial process water.
Types of Analysis/Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions	Amount of carbon present in organic compounds through combustion method
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Technical Staff Name / Email / Contact	Muhammed Munaver Muhammedmunaver@nitc.ac.in 04952285484
Location of Instrument	Instrumentation Lab
Other Details	

User Charges:

S.NO.	Type of Analysis/Testing	Internal - within Department of NITC	Internal - Other Departments NITC	External Academic Educational Institutes	National Labs	Industry
1	Total Organic Carbon		400	800	800	1600

Slot Booking and Payment Work Flow:

- Discuss the slot availability with the technical staff in the instrumentation lab of chemical engineering department.
- Collect the request form.
- Payment should be at the accounts section of the institute.
- Get the request form signed from the faculty in charge.
- Submit the request form and samples in the instrumentation lab.