

# Analytical Instruments And Measurement Conditions

## ■ Microbalance and Ultra-Microbalance

(We analyze sample in one of the following three instruments.)

Microbalance

MX5 (METTLER TOLEDO CO.,Ltd.)

XP6 (METTLER TOLEDO CO.,Ltd.)

Ultra-Microbalance

XP2U (METTLER TOLEDO CO.,Ltd.)

## ■ Organic Elemental Analysis Instruments

-- Carbon,Hydrogen,Nitrogen --

(We analyze sample in one of the following three instruments.)

<b>MICRO CORDER MT-5 (YANACO CO.,Ltd.)</b>		
Standard temperature setting	Sample furnace	950°C
	Combustion furnace	850°C
	Reduction furnace	590°C
Carrir gas	Helium	200ml/min
	Oxygen	20ml/min

<b>MICRO CORDER MT-6 (YANACO CO.,Ltd.)</b>		
Standard temperature setting	Sample furnace	950°C
	Combustion furnace	850°C
	Reduction furnace	570°C
Carrir gas	Helium	200ml/min
	Oxygen	20ml/min

<b>MICRO CORDER JM10 (J-SCIENCE LAB CO.,Ltd.)</b>		
Standard temperature setting	Sample furnace	950°C
	Combustion furnace	850°C
	Reduction furnace	550°C
Carrir gas	Helium	200ml/min
	Oxygen	20ml/min

<b>MICRO CORDER JM11 (J-SCIENCE LAB CO.,Ltd.)</b>		
Standard temperature setting	Sample furnace	1000°C
	Combustion furnace	800°C
	Reduction furnace	650°C
Carrir gas	Helium	200ml/min
	Oxygen	15ml/min

-- Halogen and Sulfur --

## Combustion IC System XS-2100H

### System Components

<b>AQF-2100H(ion chromatograph pre-treatment unit)</b> <b>(Mitsubishi Chemical Analytech Co.,Ltd.)</b>		
Standard temperature setting	Furnace Inlet Temp.	1080°C
	Furnace Outlet Temp.	1100°C
Carrir gas	Argon	200ml/min
	Oxygen	400ml/min
	Humidified Argon Flow	150ml/min
<b>Dionex ICS-1600 Ion Chromatography System</b> <b>(Thermo Fisher Scientific Inc.)</b>		
IC Conditions	Columns	Dionex IonPac AS12 , 4×200mm
	Eluent Conc.	2.7mmol/L Na <sub>3</sub> CO <sub>3</sub>
		0.3mmol/L NaHCO <sub>3</sub>
	Flow Rate	1.5mL/min
	Column Temp.	35°C
	Detection	Dionex AERS 500 suppressor, 22mA
Inj. Volume	20 µL	