

**Dushanbe Branch Joint Lab**

	<b>Instrument</b>	<b>Type</b>	<b>Testing Indicators</b>	<b>Analyzing Contents</b>
1	pH Meter	PHS-3C	pH	pH value in water or soil samples, indicating the degree of acid and alkali in water or soil
2	TOC/TN Analyzer	Multi N/C 2100	Organic carbon or nitrogen	Total carbon content in soil or plant samples; determination of the content of soluble organic carbon, total carbon and total nitrogen in water samples
3	Automatic Kjeldahl Nitrogen Determinator	Kjeltec 8420	Alkali-hydrolyzale nitrogen	Inorganic nitrogen and organic nitrogen in soil or plant samples; the cation exchange capacity of soil, that is, total volume of various cations capable being absorbed by soil colloid
4	Ion Chromatograph	ICS600	Anion or cation	Content of chloride ion, sulfate ion, potassium ion, sodium ion, calcium ion and magnesium ion in water, soil or plant samples
5	Automated Wet Chemistry Analyzer - Continuous Flow Analyzer (CFA)	AA3	Nitrate nitrogen, ammonia nitrogen, nitrite nitrogen or phosphorus	Content of ammonium and nitrate nitrogen in water and soil samples
6	UV-Vis Spectrophotometry	Cary 60	UV-visible light absorption	Content of soluble sugar, soluble protein, proline, starch, peroxidase, malondialdehyde, catalase and superoxide dismutase in plant samples; the total phosphorus content in plant and soil samples including organic phosphorus and inorganic phosphorus
7	Atomic Absorption Spectroscopy	ZA3000	Inorganic elements	Major and micro-trace elements in metallurgy, geology, mining, petroleum, light industry, agriculture, medicine, health, food and environmental monitoring
8	Potentiometric Compact Titrators	G20	pH, acid-alkali titration, complexometric titration	pH value in water or soil samples, indicating the degree of acid and alkali in water or soil; and the carbonate or bicarbonate in soil
9	Micropolariscope	DM4500 P	Microscopic observation	Various professional polarized light observations such as petrography, mineralogy, geological structure features, liquid crystal test
10	Stereomicroscope	M205 C	Microscopic observation for ultra- pure water or pure water	Mineral identification
11	Rock Slicer	SPQJ-300	Rock section	Ore sample section
12	Automatic Refiner	SMJ	Sample preparing and grinding	Ore sample preparing and grinding
13	Automatic Polishing Machine	SPZ-250	Sample polishing	Ore sample preparing, grinding and polishing
14	Flaking Machine	SMS-250	Sample preparing and grinding	Ore sample preparing and grinding
15	AC/DC Electromagnetic Separator	JZCF	Sorting	Ore sorting
16	Automatic Digester	EHD20	Heating	Digestion of soil, plants and other samples
17	High Temperature Muffle Furnace	SDTGA100	High temperature environment	Ore sample melting, decomposing and preparing
18	Multifunctional Enzyme Marker	M2-96	Activity analysis	Enzyme activity analysis, Readit™ SNP test, DNA probe analysis, receptor binding study, cell proliferation study, cell life, membrane voltage, cytoplasmic analysis, ion channel study, nucleic acid quantification, phagocytosis, protein-protein interaction, kinase activity, protease study, chemotropism, cytotoxicity test, apoptosis study, cAMP test, etc.

19	Ultra-low Temperature Refrigerator	DW-86L386	Ultra-low temperature environment	Preservation of samples in ultra-low temperature environment
20	Refrigerating Centrifuge	Sigma	Centrifugal separation	Solid-liquid centrifugal separation
21	Autoclave	Zealway G154DWS	Autoclaving	Microbiological analysis environment
22	Biochemical Incubator	LRH-250F	Constant temperature incubation	Microbiological incubation
23	Conductivity Meter	DDSJ-308A	Electrical conductivity	Measuring of the electrical conductivity
24	Ultrasonic Cleaner	KQ-500E	Ultrasonic oscillation	Ultrasonic cleaning of samples or vessels
25	Air Bath Oscillator	IS-RSDA	Oscillation extraction	Oscillation extraction of samples
26	Biomicroscope	BX51TF	Microscopic observation	Microscopic observation for section
27	Paraffin Slicer	Leica RM2235	Sample preparation	Section sample preparation
28	Freeze Dryer	ALPHA1-2LD	Vacuum drying	Vacuum drying of samples
29	Climacell	PGR15	Temperature, humidity, light environment	Plant cultivation environment
30	PCR	c-1000	Polymerase chain reaction	Amplify specific DNA fragments
31	PCR	PCR MG96G	Polymerase chain reaction	Amplify specific DNA fragments
32	Homogenization Crushing System	MP-24	Sample crushing	Biological sample preparation
33	Pipette	eppendorf	Liquid quantification	Liquid quantitative transfer
34	Gel Imager	--	Imaging and analysis	Imaging and analysis for agarose gel and polyacrylamide gel
35	Electrophoresis	--	Electrophoretic analysis	Electrophoretic analysis of proteins, nucleic acids, etc.
36	Electric Thermo Static Drying Oven	STIK BAO 250	Drying	Thermo drying of samples or vessels
37	Water Purification System	FBZ2002-UP	Pure water or ultra-pure water	Supply of pure water or ultra-pure water