


















EQUIPMENT AND FACILITIES




of Gorno-Altai State University
 offered for joint use
 to SUNRAISE partner-universities



№	Title *purchased with the SUNRAISE financial support	Description	Photo
PORTABLE ECOLOGICAL & CHEMICAL LABORATORY			
1	* Turbidity Portable Meter HI98703 HANNA	is intended to measure turbidity, quickly determines the number of suspended particles in water	
2	* Gas detector IGS “Kometa M-5” with forced sampling	used for toxic or combustible gas detection, as well as for oxygen deficiency monitoring in confined spaces	
3	* Kit for hands-on trainings in ecology	is intended to conduct educational research work on ecology at the medium and advanced level, which allows determining a wide range of environmental indicators of water, air, soil, and food	

4	* Soil laboratories IbisLab-Pochva	<p>is intended to conduct soil quality assessment by 5 indicators:</p> <ul style="list-style-type: none"> - humic acids (range - 0-2%) - pH (range - 0-12) - nitrate nitrogen (range - 0-180 mg/kg) - ammonium nitrogen (range - 0-90 mg/kg) - mobile phosphorus (range - 0-300 mg/kg) 	
5	Skywatch Xplorer anemometer	is intended to measure wind speed, pressure, altitude, temperature, and humidity	
6	Skywatch Geos 11 Portable Weather Station	is intended to measure pressure, windspeed, humidity and temperature	
7	Leica DISTO D210 Laser Measure	is intended to measure upto 100 metres and is calibrated to within a millimeter at up to 80 metres	
8	Environmental meter Extech EN300	is intended to measure humidity, temperature, air velocity, light and sound	
9	Testo 320 flue gas analyzer	is intended to measure flue gas, draught, pressure, ambient CO and differential temperature, is equipped with two sensors – an O2 and a CO	

10	Testo 815 sound level meter	is intended to evaluate sound level in everyday work	
11	* Dust analyzer IKP-5	is intended to measure the concentration of dust and its fine fraction in the air and to control the excess of their maximum permissible concentrations	
12	* MARK-302E Dissolved oxygen analyzer	is intended to measure dissolved oxygen concentration, DO saturation and temperature of water and aqueous solutions.	
13	* GMTsM-1 Hydrometric mini flowmeter	is intended to measure water flow rate averaged for the period of observations at cross-section points of natural and synthetic stream flows (rivers, channels, pipelines, etc.)	
14	* Snow (tube) sampler BC-43	is intended to measure snow depth and water content to determine snow density	
15	*ECOTEST 2000-pH-M portable ionometer	is intended to analyze drinking, natural, and waste water, soil, feed-stuff, raw materials & ingredients for food industry, food and beverages	


16	*Weather station M-49M with a computer weather adapter	is intended to remotely measure wind speed and direction, atmospheric pressure, temperature and relative humidity of the air, output and save measurement results to a computer via RS-232 interface.	
17	*MV-4-2M (mechanical) aspiration psychrometer	is intended to measure air temperature in the range from minus 25 to plus 50°C and determine the relative humidity, as well as the characteristics of humid air using psychrometric tables in the range from 10 to 100% at temperatures from minus 10 to plus 50 °C.	
18	Thermometer electronic TK-5.01P (with surface probe)	is intended to measure temperature of a surface of solid bodies by direct contact of a probe with object of measurement.	

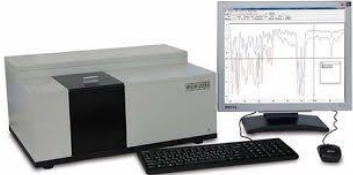

Terms of use: under the cooperation agreements all equipment and facilities for study and research are provided at no charge; payment for consumables is a subject to additional agreement on a case-by-case basis.




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STATIONARY ECOLOGICAL & CHEMICAL LABORATORY

19	Gamma-ray spectrometer	is intended to measure activity of radionuclides (natural and artificial) in water, soil, and food	
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20	FT-IR spectrometer	is intended to determine the content of various organic and inorganic substances and their compounds in solid, liquid and gaseous samples (food, soil, metals and their alloys, polymers, etc.) on the absorption spectra	
21	Kapel-105M capillary electrophoresis system	<p>is used for:</p> <ul style="list-style-type: none"> - analysis of environmental objects: natural, drinking, and waste water (inorganic cations and anions, herbicides); soils, grounds, bottom sediments (water-soluble forms of inorganic cations and anions); - control of quality, authenticity, and safety of beverages (organic acids (including individual forms of D- and L- isomers), sugars, inorganic cations and anions, preservatives, sweeteners, synthetic colors, vitamins, amino acids, furfurals, aromatic aldehydes, amines, flavonoids, anthocyanins, pesticides, and fungicides); - quality and safety control of food products, food raw materials, and dietary supplements (preservatives, sweeteners, caffeine, theobromine, organic acids, amino acids, amines, and proteins); - veterinary medicine and quality control of feed and feed raw materials (amino acids, vitamins, organic acids, inorganic cations and anions, antibiotics, and coccidiostats); - pharmaceutical industry (safety and quality 	

		<p>control of synthetic substances, natural raw materials, active pharmaceutical ingredients, and excipients and finished medicinal products);</p> <ul style="list-style-type: none"> - forensic examination (drugs, explosives, and optical brighteners); - clinical biochemistry (ions, amino acids, amines, and peptides in biofluids); and - chemical industry (determination of the main component, impurities, and control of raw materials and by-products). 	
22	KVANT-2 atomic absorption spectrometer	is intended for determination of the content of heavy metals and microelements (lead, cadmium, manganese, iron, cobalt, etc.) in environmental objects and food	
23	Ecotest-VA voltammetric analyzer	is intended for determination of the content of heavy metals (copper, cadmium, lead, and zinc) in environmental objects and food	
24	Photo-electric colorimeter KFK-2	quantitative determination of macro- or microelements, including toxic ones, and concentration of other substances that determine the quality of environmental objects and consumer properties of food products	

25	Spectrophotometer SF-46	<p>Is intended for quantitative and qualitative determination of:</p> <ul style="list-style-type: none"> - alkaloids (caffeine, theobromine, theophylline) for quality control of tea, coffee, and cocoa beans; - phenolic compounds (tannin, catechins, anthocyanins, etc.) when examining the composition of grape and fruit wines, fresh and processed fruits and vegetables, tea, and coffee; - the degree of oxidation of fats (vegetable oils, butter, margarine, mayonnaise, nuts, fish that has a high fat content, etc.) 	
26	pH meters	is intended for determination of the activity of hydrogen ions in environmental objects and food products	
27	Moisture analyzer	is intended for determination of moisture content of samples of plant products	

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SUMMER CAMP AT LAKE TELETSKOYE

Is intended for holding conferences, workshops, practical training courses, and other research and educational events.

The camp can be used only in the summertime; accommodates 50 people; food is provided (three meals a day).



Terms of use: payment for food and accommodation

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