



RESEARCH AND PRODUCTION ENTERPRISE "AKP"

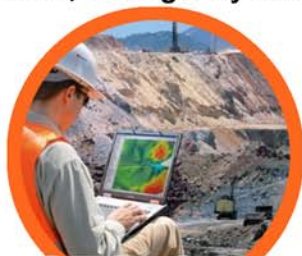
- Design, manufacturing and installation of γ and β spectrometers of ionizing radiation
- Methods of samples preparation
- Application software
- Warranty and post-warranty service
- Trainings and consulting

PORTABLE SPECTROMETERS OF GAMMA IONIZING RADIATION



FAST RESPONSE

Custom, emergency teams



GEOLOGY

mining, well control



ENVIRONMENT

In situ, monitoring



DESIGNED TO DETERMINE WIDE RANGE OF RADIONUCLIDES. ADAPTED FOR FIELD WORK AND EQUIPPING OF MOBILE LABORATORIES

^{131}I , ^{103}Ru , ^{106}Ru , ^{144}Ce , ^{137}Cs , ^{134}Cs ,
 ^{226}Ra , ^{232}Th , ^{40}K , ^{222}Rn and others

HARSH CONDITIONS

Designed to operate in different surround:
 wide range of temperatures
 vibration conditions
 raised humidity
 dusty environment

PORTABLE

Independent power supply, can be used:
 in emergency cases
 in situ
 in mobile laboratories
 in industrial premises
 in remote areas

EASY OPERATED

The size and geometry of devices are adapted for special needs.
 Suitable exploitation:
 easy to assemble
 easy to transport

PRS-01 PORTABLE RECORDER OF SPECTRA

PRS – 01 Portable recorder of spectra is designed for determination of qualitative and quantitative composition of gamma-emission radionuclides in field and in laboratory conditions, search of radioactive sources and anomalies, gamma-survey of surface. Operating modes:

- "BACKGROUND"** – determination of radiation level
- "SEARCH"** – tracing the current dose rate
- "SOURCE"** – radiation source detection
- "SPECTROMETER"** - identification of the radionuclides

LABORATORY SPECTROMETER (with additional shield)



Instrument characteristics	Characteristics values
Energy resolution for 662keV line of radionuclide Cs-137, %, no more	8.0
Integral nonlinearity of energetic scale, %, no more	± 1
Instability of calibrated characteristic for 8 operating hours, %, no more	± 2
Maximum input load, c-1	1·10 ⁴
Herewith:	
- peak's shift, %, no more	± 2
- peak's widening, %, no more	20
- "live" time error, %, no more	10
Limits of allowed main error of activity measurement for "Marinelli" geometry – 0.5l in the range:	
- above five Minimal Measured Activity (MMA), %, no more	± 30
Additional error within the interval of operating temperatures, %	± 10
Minimal detected activity (MDA) (in "Marinelli 0.5l" geometry, within measurement time of 3600 sec, at sample density of 1g/cm ³ , at radiation background no more than 0.15 μSv/hour), without protection, Bq/kg, no more than:	
according to Cs ¹³⁷	28
Operating mode setting time, minutes, no more	2
Continuous running time, hours, no more	24
PRS dimensions, mm (WxHxD)	70x150x320
PRS mass with accumulator, kg	2,3

GAMMA SPECTROMETER SEG-001 "AKP-S" "KERN"



Gamma spectrometer SEG-001 "AKP-S" "KERN" is designed for express analysis of full-length core samples to determine the natural gamma-ray emitting radionuclides ²²⁶Ra, ²³²Th, ⁴⁰K and artificial ¹³⁷Cs and other in rock samples. Binding data logging to the core depth.

THE MEASUREMENTS OF DRILL PIPE AND LENGTHY ITEM

GAMMA-SPECTROMETER SEG-001ps "AKP-S"

Gamma-spectrometer SEG-001ps "AKP-S" is designed for gamma-spectrometry in water wells and holes. Can be connected to existing geophysical gauges or other detection units.

THE MEASUREMENT OF WATER WELLS AND HOLES



PROFESSIONAL SOLUTIONS FOR RADIATION CONTROL AND MONITORING

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