



VOTAMMETRIC ANALYZER *AVA-3*

AVA-3 is an electrochemical instrument using the electrochemical method of the stripping voltammetry on the working solid electrode. The instrument is designed for measuring mass concentrations of ions of toxic elements (Pb, Cd, As, Hg, Zn, Cu, Tl etc.) in different objects such as: water, air, soil, food products, medical drugs, biological objects etc.

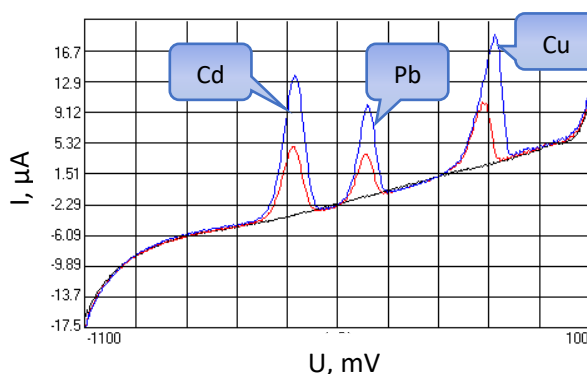
The work of AVA-3 is controlled by PC.



DISTINCTIVE FEATURES

- ◆ *high sensitivity and accuracy of measurements*
- ◆ *possibility of measuring concentration of several elements within one measuring cycle (period)*
- ◆ *safety and simplicity in preparation of the working solid electrodes for measurements*
- ◆ *small overall dimensions & lack of special requirements for the operator's position (gas supply, hood)*
- ◆ *low cost of each measurement*

EXAMPLE OF DETERMINATION CD, PB, CU



APPLICATION

AVA-3 provides with:

- ◆ *measuring the contamination with toxic metals at the level of allowable concentrations in food products (foodstuffs), fodder, medical drugs, drinking water, fertilizers, alcoholic & non-alcoholic drinks, cosmetics, toys*
- ◆ *ecological monitoring of the objects of the environment (natural, fresh & sea water, purified sewage, air of populated areas & industrial zones, soil, silt & bottom sediments)*
- ◆ *clinical control of biological objects (blood, urine etc.)*
- ◆ *research of geological rocks & minerals*
- ◆ *control of technical processes*
- ◆ *other applications according to special request for new techniques development*



LLC “Analytical Exploratory Instruments”

TECHNICAL DATA

Detection limit, ppb	0,01 (Cd, Pb, Cu, Zn) 0,2(As, Se, I) 0,005(Hg);
Range of measurement concentrations, ppb	0,005 - 100 (Hg); 1 - 10000 (Zn) 1-200 (Pb, Cd, Cu) 1- 1000 (As)
Relative measurement error in sample solutions (instrumental error), %	±20 (As, Hg); ±15 (Pb, Cd, Cu, Zn);
Time for analysis of one sample (without sample preparation), min	5 - 30
Expenditure of the sample, g ml	0,02-15 0,05-100
Voltage of mains, V	220
Power consumption, VA	10
Overall dimensions of the electrochemical block, mm	180x260x300
Mass of the electrochemical block, kg	3

THE SET INCLUDES

1. *Electronic unit – 1 pc.*
2. *Software*
3. *Working carbon electrode – 1 pc.*
4. *Working Au electrode – 1pc.*
5. *Auxiliary electrode – 1 pc.*
6. *Reference electrode – 1 pc.*
7. *Glass for liquid tests – 2 pc.*
8. *Cables for unit connection – 1 set*
9. *Technique – 1 pc.*
10. *Training of analyzer working – 2 days*



DELIVERED ON A SPECIAL REQUEST:

- ◆ *Notebook*
- ◆ *Techniques (from the list)*
- ◆ *Spare parts of the set (electrodes, glasses, special cables, etc.)*
- ◆ *Training of techniques*
- ◆ *Validation of equipment and techniques*
- ◆ *Approbation and development of new technique*