



Belarusian State University
of Informatics and Radioelectronics

R&D Department

Announcement

31st International Exhibition

“Medical Engineering, Products and Consumables” (ZDRAVOOKHRANENIYE-2022)

December 5 – 9, 2022

Moscow, Russia

Krasnopresnenskaya nab., 14, EXPOCENTRE

About the exhibition

The goal of the exhibition is to represent the newest medical equipment, medical products, expendables; prevention and rehabilitation means; aesthetic medicine, pharmaceuticals and healthy lifestyle products; medical and wellness services, rejuvenation and treatment technology in Russia and abroad, as well as to provide the largest industry events of a vast business and scientific program.

Topics of the exhibition:

- Functional diagnostics.
- High-imaging diagnostics.
- In-vitro diagnostics.
- Endoscopy.
- Blood service.
- Ambulance and disaster medicine.
- Intensive care and resuscitation.
- Surgery.
- Orthopedics and traumatology.
- Gynecology and neonatology.
- Urology.
- Ophthalmology.
- Dentistry.
- General hospital equipment.
- Sterilization and disinfection.
- Disposable products and consumables.
- Specialized industry services.
- IT and communication.

In the frames of the exhibition BSUIR will introduce the following hi-tech developments:

Stationary and portable cavitometers

The device is used to measure and regulate the cavitation activity inside powerful ultrasonic fields and hydrodynamic cavitators. The equipment can be used to optimize ultrasonic technological processes, detect the cavitation and its intensity in hydraulic systems, as well as to measure cavitation thresholds.

Advantages:

- separates the contributions of stationary and non-stationary cavitation;
- is equipped with a built-in memory card and a USB cable;
- includes the software for processing the measurement results.

About the development

Ultrasonic disperser

The device is used to generate ultrasonic oscillations in liquids. The equipment can be used to produce suspensions or emulsions of different substances, rinse small articles from mechanical impurities, extract, and disperse; it can also be used in sonochemistry, as well as for processing of samples from fiber-like, crystal-like, powder-like and other substances during electron-microscope research.

Advantages:

- operational mode: pulse, continuous;
- adjustment of the emitter oscillation amplitude in the range from 5 to 100 %;
- replaceable waveguides of the emitter.

About the development

Sonoluminescent setup

The setup is used to study cavitation and cavitation-related phenomena by recording sonoluminescence. It can be used to study how the liquid properties and sonication conditions influence the cavitation development dynamics; evaluate the cavitation activity in different conditions; measure the cavitation threshold.

It is recommended to be used in research aimed at identifying the mechanisms of ultrasound and cavitation influence on biological processes and organisms, as well as chemical and physical processes in liquids.

About the development

Ultrasonic low-frequency cavitation system

The system can be used to generate ultrasonic vibrations in liquids at a controlled level of cavitation activity.

Advantages:

- cavitation generation in ultrasonic fields in a wide frequency range;
- high reproducibility degree of cavitation sonication modes, that provides the possibility to measure and analyze the spectral characteristics of sensors and study the cavitation processes in liquids.

About the development



Portable cavitometer ICA-5D



Cavitometer ICA-7DS



Cavitometer ICA-3M



Ultrasonic disperser



Sonoluminescent setup



Ultrasonic low-frequency cavitation system