

Announcement of BSUIR participation in the HI-TECH 2026 International Exhibition of Innovations

April 14 – 16, 2026

Russia, St. Petersburg,

Expoforum Convention and Exhibition Center

(Peterburgskoye Highway, 64/1)

BSUIR stand within the exposition of the Ministry of Education of the Republic of Belarus: No. C1.3, Pavilion H

The HI-TECH 2026 International Exhibition is a key Russian event in the field of high technologies and innovations. Since 1996, the exhibition has been promoting interaction between scientists, manufacturers and investors, demonstrating developments in robotics, nanotechnologies, additive manufacturing, electronics, etc.

The BSUIR exposition will include the following developments:

Continuous glucose monitoring system



Description

A personalized system for continuous long-term glycaemia monitoring using innovative information and communication and biomedical technologies.

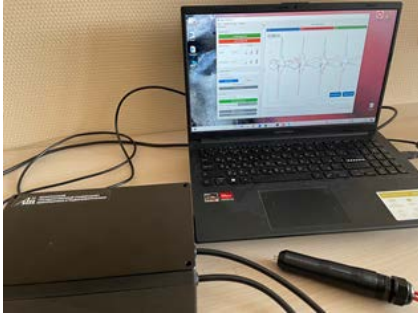
The system enables automatic recording, storage and analysis of glucose level values in the user's extracellular fluid over a certain period of time. The data are displayed in the form of graphs, allowing the user to assess their condition over time.

Built-in software algorithms detect pre-critical and critical conditions, and also generate recommendations for system users (patient, medical personnel, emergency services, relatives, etc.).

Advantages:

- compact sensor and wearable device;
- wireless data exchange;
- unique real-time algorithm for processing measurement results;
- notification system for the patient, trusted persons and physician about critical (high or low) glucose levels.

Device for generation of cold atmospheric plasma and control of its interaction with surface



Description

The device uses pulse-width modulated signals to generate plasma with various properties.

To ensure stable operation at the resonant frequency when interacting with object surfaces, a phase-locked loop is used. Built-in diagnostic tools make it possible to assess the energy properties of the plasma itself and to control its interaction with the surface of the object. Their

operation is based on measuring and analyzing signal parameters in the generator output circuit.

Advantages:

- modification of plasma properties by changing the parameters of excitation signals;
- plasma diagnostics and real-time control of its interaction with the treated surface;
- ability to operate with various types of discharge systems (plasma jet, surface, etc.);
- energy-efficient operating modes of the generator.

Main technical specifications:

Output power of the generator providing plasma formation, W	1...20
Maximum voltage at the electrodes of the discharge system, kV	5
Frequency of plasma excitation signal, kHz	12...50

Application areas:

Biology and healthcare:

- sterilization and therapy equipment and technologies.

Microelectronics:

- manufacturing of products.

Optics:

- processing and coating technologies.

Chemical industry and new materials:

- non-destructive modification of surface properties of various materials.

Environmental protection:

- water and air purification technologies, etc.

About the developer

System of patient-specific therapy for respiratory failure



The system **is used to** automate the adjustment and correction of the rate, volume and time of exposure to oxygen supplied to the patient based on monitoring of his changing state

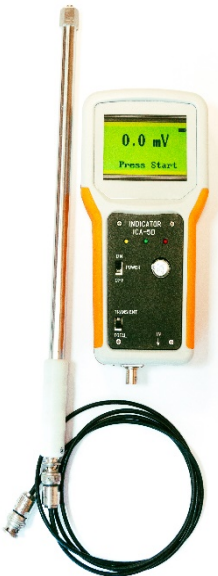
The system has no direct analogues, since currently the adjustment and correction of therapy modes are performed manually by a physician.

Advantages:

- increased efficiency of oxygen therapy due to patient-specific adaptation to the patient's changing state;
- safety of oxygen therapy ensured by supplying the exact amount of oxygen required at each moment;
- optimization of oxygen and energy consumption;
- automation of therapy mode adjustment and correction;
- possibility of remote patient management;
- increased efficiency of patient weaning from the respirator;
- accelerated and effective patient rehabilitation.

About the developer

High-frequency cavitation indicator



Used for measurement and analysis of cavitation activity in liquid media and biological tissues, for studying ultrasonic processes, optimisation of technological modes and monitoring of ultrasonic equipment.

Built on the basis of programmable logic integrated circuits. Equipped with specialized software for recording the cavitation noise spectrum and real-time data processing with visualization of measurement results in the form of graphs.

Advantages:

- the only device in the CIS for measuring and studying cavitation within a specified frequency range;
- wide set of cavitation noise metrics;
- USB interface for data exchange with a PC and real-time visualization of measurement results;
- development of hydrophones according to customer requirements.

About the developer

At the “Best Innovative Project and Best Scientific and Technical Development of the Year” contest BSUIR will present three developments in the following nominations:

- The best innovation in import substitution, localization, import advancement, successful market promotion;
- The best innovative project and best scientific and technical development of the year;
- The best innovative project (development) in the field of instrumentation, national element base, measuring and control equipment.

We invite you to visit the BSUIR stand within the exposition of the Ministry of Education of the Republic of Belarus: No. C1.3, Pavilion H, at the HI-TECH 2026 exhibition.

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