



**Belarusian State University
of Informatics and Radioelectronics**

R&D Department

Announcement

BSUIR at the 28th International Specialized Exhibition “Energy. Ecology. Energy saving. Electricity” (EnergyExpo'2024)

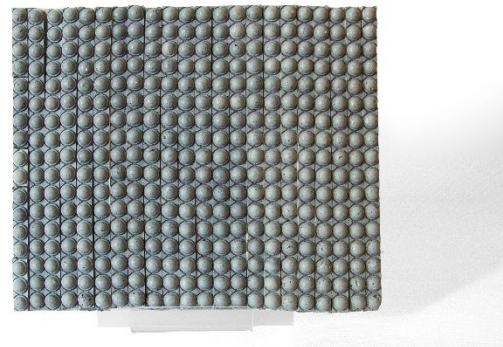
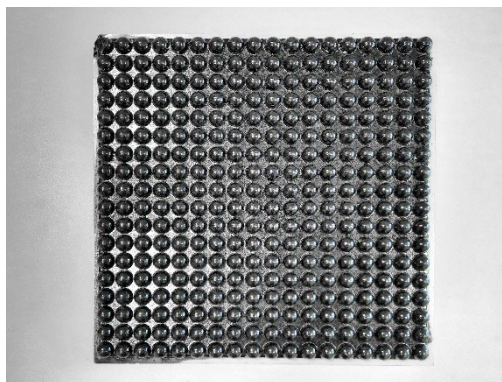
15– 18 October 2024

Minsk, Republic of Belarus
Football arena (20/2 Pobediteley Avenue)

Exhibition “EnergyExpo” has been held since 1995, attracting the attention of leading Belarusian and world manufacturers of equipment, technologies and materials, and is one of the largest on this topic in the CIS and Baltic countries.

At the exhibition, BSUIR will present innovative functional materials and technologies for their production.

Electromagnetic radiation absorbers developed during the implementation of research and development within the framework of the State Program “High-Technology and Engineering” for 2021-2025. A Eurasian patent for an invention and a patent of the Republic of Belarus for an invention were received. The absorbers were used to create an anechoic chamber in the research unit of BSUIR and a shielded cabin in Depoint LLC.

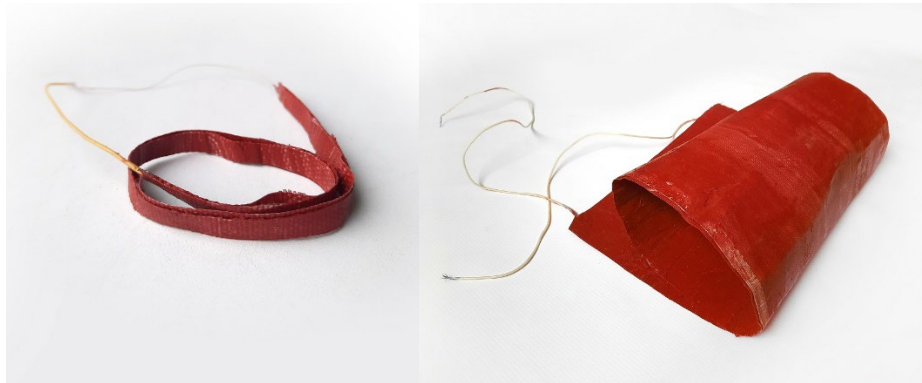


Depending on the purpose, three types of absorbers have been created:

1. Flexible grey absorbers – for covering walls and ceilings of a shielded room.
2. Solid black - for covering the floor of a shielded room.
3. Breathable textiles – for creating special clothing to protect people from exposure to electromagnetic radiation.

About the developer

Flexible heaters are developed on the basis of silicone and carbon fiber and can be used for defrosting the evaporator of a refrigerator with the "No Frost" system, as well as a heater for the drip tray of a refrigerator.



Distinctive features:

1. High energy efficiency due to the small thickness of the heater, which allows reducing energy consumption by up to 30%, and also by directing the heat flow to the working surface of the heater, which accordingly reduces energy consumption in general.
2. The innovative nature of the solution lies in the use of carbon fiber.

Wide range of applications:

- in heating systems for car batteries, seats and steering wheel, as well as in the car climate control system;
- for defrosting the evaporator of a refrigerator with the "No Frost" system and heating the drip tray of the refrigerator;
- as a silicone heating panel in a 3D printer;
- in medicine for heating the operating table.

About the developer