



**Belarusian State University
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R&D Department

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Announcement

International Smart Cities and Grids Expo

June 17 – 18, 2021

Istanbul, Turkey

About

The ISCG is a forum where participants discuss proposals for global solutions for smart cities, the grid and smart energy aimed at solving the problems faced by cities and improving the quality of life of the population.

Directions:

- ecology,
- urban landscape,
- public transport,
- urban infrastructure,
- urban equipment and machinery,
- smart energy,
- smart power systems, municipal property.

BSUIR will showcase high-tech developments in energy technologies

1. Manufacturing technology of energy-saving flat and flexible aluminum heaters with a carbon fiber resistive element

The technology allows you to produce flat and flexible heating elements with any surface shape. This is important in the automotive industry to create comfortable conditions in the cabin and heating the fuel cells of the engine, in electric vehicles for heating lithium-ion batteries at low air temperature, as well as for molds in industry and in the military sector.

The use of carbon filament ensures high stability of the electric characteristics of the heater and its reliability under constant heating-cooling thermal cycles during operation.

Benefits:

- adjustable electrical resistance in the range from 60 to 800 Ohm/m;
- maximum operating temperature up to 400°C;
- aluminum base;
- carbon filament heating tape;
- ultra-thin shape;
- low heat loss.

2. Technology for producing optically selective composite absorbing coatings for solar collectors

The technology makes it possible to obtain composite highly selective absorbing coatings in the composition of anodic aluminum oxide/amorphous carbon. The coatings are evenly colored and wear-resistant.

Benefits:

- resistance to ionizing radiation;
- high corrosion, thermal and light resistance;
- high electrical insulation properties;
- environmentally safe process to form electrochemical coating.

[More on technologies](#)

[Official website](#)