

FOUNDED

in **2012**

CORE OF THE INNOVATION

A set of technologies and equipment working in perspective terahertz emission range that is being used for diagnostics of both closely located and remote objects.

APPLICATIONS

Medicine and life safety systems

IMPLEMENTATION OF THE INNOVATION

ALREADY IN THE END OF **2014**

PEOPLE

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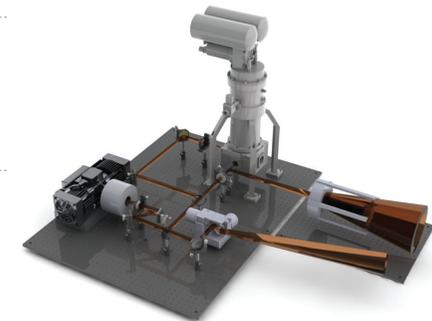
Peculiarities of the product

1

The project is aimed at solving the problem of receiving informative, contrast and realistic THz images of biological tissues, chemical substances and medicines and extracting from them unique information, for instance, about early stages of skin cancer development.

2

Innovative character of the development is supported by using a mechanism of "color vision". It is based on a set of quantum cascade lasers combined into one device with a supersensitive detector. Along with that, there are taken approaches based on the interference of scanning and localized plasmons on subwave-length structures used for controlling the spectrum of the THz emission that has already took place.



Perspective tasks:

1

Analysis of skin tissue and receiving images and/or spectrums of the reflected THz emission.

2

Diagnostics and control of drugs in the form of pills and powder, encapsulated drugs and drugs in plastic packaging.

3

Identification of various substances and analyzing their specific concentrations and compositions.