

Subject

Therapy using physical agents

Topic

Treatment of tumors using focused ultrasound

Context

The techniques for the treatment of tumors using high-power focused ultrasound known as HIFU (High Intensity Focused Ultrasound) are developing rapidly. This technique is fast and only slightly invasive, and there are often fewer side effects than with alternative techniques (surgery, radiotherapy, curie therapy, chemotherapy, etc).

The development of these techniques requires high-performance sources of high-power focused ultrasound. Imasonic, based in Besançon in Franche-Comté, has developed a unique expertise in this field.

Objectives

The aim of the ULTRASUR project is to develop sources of high-intensity focused ultrasound. In the medical field, these sources are intended to be used in tumor treatment systems with high energy and spatial performances, and a high level of operational safety. The project's particular focus is on studying the effects of the aging of materials and structures in conditions of high acoustic levels. Innovative concepts and solutions will also be developed, and industrial applications will be experimented.

Partners

The partners are the companies IMASONIC (Besançon) and ITT Industries (Dole), and the laboratories FEMTO-ST / CREST (Belfort), FEMTO-ST / LMARC (Besançon) and LCMI (Besançon).

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