





# **Detector for PET apparatus**

#### DESCRIPTION OF THE TECHNOLOGY

detector cell that can be used in devices based on scanned . The new detector developed by our positron emission tomography (PET). The cell research team has a configuration which makes it configuration provides high detection better than conventional systems.

The positron emission tomography (PET) devices consist basically of a functional scanner that allows 3D modeling inside the body of a patient for the diagnosis of tumors. The techology under these

devices is based on photonic detection using a 511 keV photon detectors ring surrounding, forming

A research group from CSIC has developed a photon a ring detection section of the patient's body particularly suitable for medical applications because of their high efficiency photon detection thanks to the combination of a sealed cell filled with liquid Xenon and Silicon photomultipliers coated with tetraphenylbutadiene (TPB).

## MARKET APPLICATION SECTORS

Medical device companies.

### TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- Excellent resolution in the measurement of the photon energy of 511 keV capable of being used in a PET apparatus
- Excellent temporal resolution in the measurement of time of arrival of these photons, allowing improved apparatus PET technique called PET- TOF (time of flight)
- Good spatial resolution in the three coordinates defining the interaction of photons in the detection cell.
- In addition, this cell can be used as a constituent element of PET apparatus compatible with magnetic resonance imaging systems because none of its components is affected by the strong magnetic fields associated with this technique.

### CURRENT STATE OF DEVELOPMENT

The technology is ready to be marketed by companies in the medical device sector.







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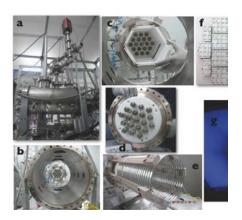
# INTELLECTUAL PROPERTY RIGHTS

Spanish priority application filed

# **COLABORATION SOUGHT**

An instrumentation company interested in licensing is sought for its development and commercialization.

## RELATED IMAGES



Detector of particles

## **CONTACT**

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