

COMBINED PET/MRI SCANNER

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License Status

Available for Licensing

- Non-Exclusive
- Exclusive

Patent Status

US Patent

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Brookhaven
National Laboratory

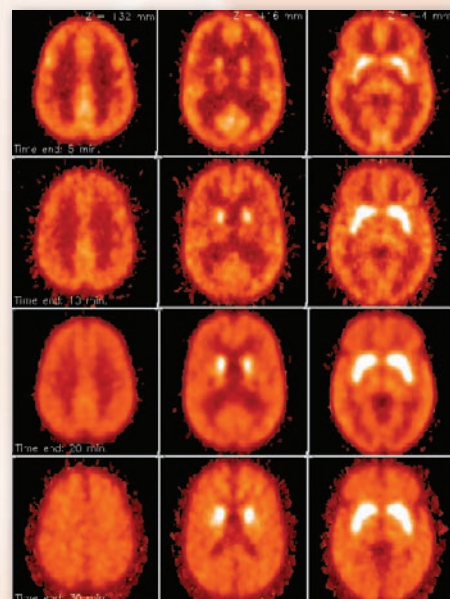
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PRODUCT

Describes a simultaneous dual modality PET/MRI scanner which includes a magnet for producing a magnetic field suitable for magnetic resonance imaging, a radiofrequency coil and a ring tomograph disposed within the magnetic field produced by the magnet. The ring tomograph contains a scintillator layer which is coupled to a detection array, which in turn is coupled to a front-end electronic array, which has a preamplifier and a shaper network for conditioning the detection signal.

COMPETITIVE ADVANTAGE

The technology provides a MRI scanner combined with a PET scanner whose output is not detrimentally affected by the magnetic fields produced by the MRI scanner. The technology allows one to simultaneously realize the diagnostic benefits of using PET the MRI imaging techniques.

APPLICATIONS

A dual modality PET/MRI scanner will be extremely useful in studies such as *in vivo* analysis of complex metabolic systems, validation of functional MRI techniques for brain mapping and in development of new pharmaceuticals such as psycho-active drugs.

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