Title (en)

AN INTEGRATED LOW FIELD MRI/RF EPRI FOR CO-REGISTERING IMAGING OF IN VIVO PHYSIOLOGY AND ANATOMY IN LIVING OBJECTS

Title (de)

KOMBINATION VON MAGNETISCHER RF- UND ELEKTRON-PARAMAGNETISCHER RESONANZ-BILDGEBUNG IN KLEINEN MAGNETFELDERN ZUR GLEICHZEITIGEN IN VIVO BILDGEBUNG PHYSIOLOGISCHER UND ANATOMISCHER MERKMALE LEBENDER OBJEKTE

Title (fr)

IRM/RF RPE A BAS CHAMP INTEGREE POUR COENREGISTREMENT D'IMAGES PHYSIOLOGIQUES ET ANATOMIQUES IN VIVO DANS DES OBJETS VIVANTS

Publication

EP 1226449 A1 20020731 (EN)

Application

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Priority

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Abstract (en)

[origin: WO0133244A1] A method and apparatus of co-registering images of paramagnetic spin probe distribution, obtained from Electron Paramagnetic resonance imaging (EPRI) with morphological images obtained from Magnetic Resonance Imaging (MRI) in an integrated EPRI/MRI scanner includes a combination of low-field MRI and an Electron Paramagnetic Resonance Imager (EPRI) which utilize the same magnet/gradient coil assembly. Since low-field MRI and EPRI share the same magnetic field for resonance conditions, the operating frequency of EPR will be approximately 650 times higher than the frequency where MRI is performed, which is the ratio of the magnetic moments of the electron vs. proton.

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