

Title (en)

NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY USING LIGHT WITH ORBITAL ANGULAR MOMENTUM

Title (de)

KERNMAGNETISCHE RESONANZSPEKTROSKOPIE MITTELS LICHT MIT ORBITALEM DREHIMPULS

Title (fr)

ANALYSE D'ÉCHANTILLON À BASE DE MICRO-SPECTROSCOPIE RMN

Publication

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Application

**EP 09702507 A 20090115**

Priority

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- US 2208408 P 20080118

Abstract (en)

[origin: WO2009090610A1] The present invention relates to a device capable of producing a high resolution chemical analysis of a sample, such as fluid, based upon nuclear magnetic resonance (NMR) spectroscopy, where the nuclear magnetic polarizations of the sample are generated by sequentially illuminating the sample with a focused beam of light carrying angular orbital angular momentum (OAM) and possibly momentum (spin). Unlike in usual NMR used for (10) magnetic nuclear resonance imaging (MRI) or spectroscopy, the invention does not make use of a strong magnet.

IPC 8 full level

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