

Title (en)

DEVICE FOR MEASURING AN AMOUNT OF SUPERPARAMAGNETIC MATERIAL AND USE OF SUCH A DEVICE

Title (de)

VORRICHTUNG ZUR MESSUNG EINER MENGE EINES SUPERPARAMAGNETISCHEN MATERIALS UND VERWENDUNG EINER SOLCHEN VORRICHTUNG

Title (fr)

DISPOSITIF DE MESURE D'UNE QUANTITE DE MATERIAU SUPERPARAMAGNETIQUE ET UTILISATION D'UN TEL DISPOSITIF

Publication

**EP 4052057 A1 20220907 (FR)**

Application

**EP 20780249 A 20200909**

Priority

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Abstract (en)

[origin: WO2021084169A1] The invention relates to a device (10) for measuring an amount of superparamagnetic material, the device comprising a pair of measuring coils (P1) and a pair of compensating coils (P2), the coils of a pair (P1, P2) being identical to each other. The device also includes at least one direct current generator (GDC), a low-frequency generator (GBF), and a high-frequency generator (GHF), the generators (GDC, GBF, GHF) being coupled to the first and second pairs (P1, P2) to inject into each of the coils (P1A, P1B, P2A, P2B) a current having a DC component, a high-frequency component and a low-frequency component, such that the magnetic fields generated by the coils of the same pair are identical. The device also comprises a detector of a component of an electric voltage set at a mixing frequency which is a linear combination of the first and the second frequency.

IPC 8 full level

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