

Title (en)

METHOD AND SYSTEM FOR NON-INVASIVELY CHARACTERISING A HETEROGENEOUS MEDIUM USING ULTRASOUND

Title (de)

VERFAHREN UND SYSTEM ZUR NICHTINVASIVEN CHARAKTERISIERUNG EINES HETEROGENEN MEDIUMS MITTELS ULTRASCHALL

Title (fr)

PROCÉDÉ ET SYSTÈME DE CARACTÉRISATION ULTRASONORE NON INVASIVE D'UN MILIEU HÉTÉROGÈNE

Publication

**EP 4007914 A1 20220608 (FR)**

Application

**EP 20820244 A 20200731**

Priority

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- FR 2020051416 W 20200731

Abstract (en)

[origin: WO2021023933A1] Method for non-invasively characterising a heterogenous medium using ultrasound, comprising a step of generating a series of incident ultrasonic waves, a step of recording an experimental reflection matrix  $R_{ui}(t)$  defined between the input emission basis (i) and an output reception basis (u), a step of determining a response  $REP(r, \Delta r)$  of the medium between an input virtual transducer (TVin), which is computed from an input focus of the experimental reflection matrix that creates an input focal spot about a first point (P1), and an output virtual transducer (TVout), which is computed from an output focus of the experimental reflection matrix that creates an output focal spot about a second point (P2), said response being expressed as a function of a central point (PC) of spatial position (r) in the medium located in the middle of the first and second points (P1, P2).

IPC 8 full level

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