

Title (en)

METHOD FOR RHEOLOGICAL CHARACTERIZATION OF A VISCOELASTIC MEDIUM

Title (de)

VERFAHREN ZUR RHEOLOGISCHEN CHARAKTERISIERUNG EINES VISKOELASTISCHEN MEDIUMS

Title (fr)

PROCEDE DE CARACTERISATION RHEOLOGIQUE D'UN MILIEU VISCOELASTIQUE

Publication

EP 2160597 A2 20100310 (FR)

Application

EP 08806061 A 20080623

Priority

- FR 2008051129 W 20080623
- FR 0704535 A 20070625

Abstract (en)

[origin: WO2009007582A2] Method for rheological characterization of a viscoelastic medium, comprising the following steps: (a) an excitation step during which a vibratory excitation is generated in the viscoelastic medium leading to a deformation of the medium, (b) a deformation measurement step during which the deformation of the medium caused by the excitation is observed, (c) and a characterization step during which at least one non-zero power parameter y is determined such that a rheological parameter of the medium x is equal to $x(f) = a + b \cdot f^y$, where f is the frequency, a is a real number and b a non-zero scale parameter. It is thus possible to obtain mapping of the power parameter y .

IPC 8 full level

G01N 29/024 (2006.01); **A61B 8/08** (2006.01); **G01N 29/032** (2006.01); **G01N 29/06** (2006.01); **G01N 29/07** (2006.01); **G01N 29/11** (2006.01); **G01S 7/52** (2006.01); **G01S 15/89** (2006.01)

CPC (source: EP KR US)

A61B 8/08 (2013.01 - EP KR US); **A61B 8/485** (2013.01 - EP KR US); **G01N 29/024** (2013.01 - EP KR US); **G01N 29/032** (2013.01 - EP KR US); **G01N 29/06** (2013.01 - EP KR US); **G01N 29/07** (2013.01 - EP KR US); **G01N 29/11** (2013.01 - EP KR US); **G01S 7/52038** (2013.01 - EP KR US); **G01S 15/8906** (2013.01 - KR); **G01N 2203/0094** (2013.01 - EP US); **G01N 2291/02475** (2013.01 - EP US); **G01N 2291/02483** (2013.01 - EP KR US); **G01N 2291/02491** (2013.01 - EP KR US); **G01N 2291/02827** (2013.01 - EP US); **G01S 15/8906** (2013.01 - EP US)

Citation (search report)

See references of WO 2009007582A2

Citation (examination)

- R SINKUS ET AL: "Breast Cancer exhibits liquid-like mechanical properties - A comparative study between MR-Mammography and MRElastography", PROC. INTL. SOC. MAG. RESON. MED., 25 May 2007 (2007-05-25), Berlin, pages 963, XP055051062, Retrieved from the Internet <URL:http://cds.ismrm.org/ismrm-2007/files/00963.pdf> [retrieved on 20130124]
- B LARRAT ET AL: "High Resolution MR-Elastography of In-Vivo Rat Brain - Understanding the Scaling Behaviour of the Structures", PROC. INTL. SOC. MAG. RESON. MED. 15, 25 May 2007 (2007-05-25), Berlin, pages 1255, XP055051068, Retrieved from the Internet <URL:http://cds.ismrm.org/ismrm-2007/files/01255.pdf> [retrieved on 20130124]

Citation (third parties)

Third party :

- SINKUS R. ET AL: "Breast Cancer exhibits liquid-like mechanical properties - A comparative study between MR-Mammography and MRElastography", PROC. INTL. SOC. MAG. RESON. MED., 25 May 2007 (2007-05-25), BERLIN, pages 963, XP055051062
- LARRAT B. ET AL: "High Resolution MR-Elastography of In-Vivo Rat Brain - Understanding the Scaling Behaviour of the Structures", PROC. INTL. SOC. MAG. RESON. MED. 15, 25 May 2007 (2007-05-25), BERLIN, pages 1255, XP055051068

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