

Title (en)  
NON-INVASIVE DIFFUSE ACOUSTIC CONFOCAL THREE-DIMENSIONAL IMAGING

Title (de)  
NICHT-INVASIVE DIFFUSE AKUSTISCHE KONFOKALE DREIDIMENSIONALE BILDGEBUNG

Title (fr)  
IMAGERIE TRIDIMENSIONNELLE CONFOCALE, ACOUSTIQUE, DIFFUSE, NON INVASIVE

Publication  
**EP 3894892 A4 20220525 (EN)**

Application  
**EP 19897458 A 20191206**

Priority

- US 201816216938 A 20181211
- CA 2019000164 W 20191206

Abstract (en)  
[origin: WO2020118406A1] A method and a device for imaging an object in a first material having a different optical density to the object. The method comprises: focusing an acoustic coherent beam to a virtual acoustic source in a fluid or an amorphous second material outside of the first material; moving the virtual acoustic source in the fluid or amorphous material such that at least a plurality of scattered beams from the virtual acoustic source scan the first material and at least the scattered beam is reflected from the object to form a reflected beam and at least one scattered beam bypasses the object to form a bypass beam, and wherein the reflected beam and the bypass beam intercept one another to form a coherent interference zone; and defocusing the coherent interference zone to provide a Fresnel fringe, the Fresnel fringe forming an image of the object.

IPC 8 full level  
**G01S 7/52** (2006.01); **A61B 8/08** (2006.01); **G01N 29/06** (2006.01); **G01S 15/89** (2006.01)

CPC (source: EP)  
**G01N 29/0654** (2013.01); **G01S 7/52036** (2013.01); **G01S 7/52079** (2013.01); **G01S 15/8931** (2013.01); **G01S 15/8934** (2013.01); **G01S 15/897** (2013.01); **G01S 15/8993** (2013.01); **A61B 8/0808** (2013.01); **A61B 8/4227** (2013.01); **A61B 8/4472** (2013.01); **A61B 8/485** (2013.01); **G01N 2291/02475** (2013.01)

Citation (search report)  
[X1] US 2017311804 A1 20171102 - HERRING RODNEY [CA]

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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