

Title (en)
SYSTEMS AND METHODS FOR SPECTROSCOPY OF BIOLOGICAL TISSUE

Title (de)
VORRICHTUNGEN UND VERFAHREN FÜR DIE SPEKTROSKOPIE VON BIOLOGISCHEM GEWEBE

Title (fr)
SYSTEMES ET PROCEDES DE SPECTROSCOPIE D UN TISSU BIOLOGIQUE

Publication
EP 1495309 A1 20050112 (EN)

Application
EP 03723896 A 20030404

Priority
• US 0310307 W 20030404
• US 37019702 P 20020405
• US 17806202 A 20020621

Abstract (en)
[origin: JP2010249835A] <P>PROBLEM TO BE SOLVED: To provide a probe of near-infrared Raman spectroscopy useful for both disease diagnosis and research of a disease progress. <P>SOLUTION: The system for measuring tissue includes a fiber optic probe having a diameter of 2 mm or less. Such a small diameter allows the system concerned to be used for the diagnosis of coronary artery disease or other small lumens or soft tissue with minimal trauma. A delivery optical fiber is included in the probe coupled at the proximal end to a light source. A filter for the delivery fibers is included at the distal end. The system concerned includes a collection optical fiber (or fibers) in the probe that collects Raman scattered radiation from tissue and the collection optical fiber concerned is coupled at the proximal end to a detector. A second fiber is disposed at the distal end of the collection fibers. An optical lens system is disposed at the distal end of the probe, including a delivery waveguide coupled to the delivery fiber, a collection waveguide coupled to the collection fiber and a lens. <P>COPYRIGHT: (C)2011,JPO&INPIT

IPC 1-7
G01N 21/65; A61B 5/00

IPC 8 full level
A61B 1/00 (2006.01); **A61B 5/00** (2006.01); **G01N 21/47** (2006.01); **G01N 21/65** (2006.01)

CPC (source: EP)
A61B 5/0075 (2013.01); **A61B 5/0084** (2013.01); **A61B 5/0086** (2013.01); **A61B 5/415** (2013.01); **G01N 21/474** (2013.01); **G01N 21/65** (2013.01); **A61B 5/0071** (2013.01); **A61B 5/0091** (2013.01); **A61B 5/4519** (2013.01); **G01N 2021/4745** (2013.01); **G01N 2021/4759** (2013.01); **G01N 2021/656** (2013.01)

Citation (search report)
See references of WO 03087793A1

Cited by
CN110235036A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
AU 2003230799 A1 20031027; EP 1495309 A1 20050112; JP 2005522293 A 20050728; JP 2010249835 A 20101104; JP 4588324 B2 20101201

DOCDB simple family (application)
AU 2003230799 A 20030404; EP 03723896 A 20030404; JP 2003584690 A 20030404; JP 2010136655 A 20100615