

Title (en)

CATHETER FOR LASER TREATMENT OF ATHEROSCLEROTIC PLAQUE AND OTHER TISSUE ABNORMALITIES

Publication

EP 0576607 A4 19940713 (EN)

Application

EP 92910395 A 19920318

Priority

US 67282291 A 19910321

Abstract (en)

[origin: WO9216140A1] A medical catheter (10) for treating atherosclerotic plaque (16) and other abnormalities includes optical fibers (30) for applying laser energy to the plaque (16) and an ultrasonic transducer system (32, 34) for sensing the location and configuration of the plaque (16). The optical fibers (30) and electrical wiring (40) for the transducers (32, 34) extend through a probe (28) which is rotatable inside of the catheter tube (12) to provide universal directional control of the fibers (30) and transducers (32, 34). A reflective system includes a curved reflector (38) in the probe (28) which can be axially adjusted to vary the directions of the ultrasonic signals. Alternative forms of the invention include different reflector schemes, an angled ultrasonic transducer (32, 34) having a conical signal output that varies with frequency, and various different systems for rotating the transducers (32, 34) and fibers (30).

IPC 1-7

A61B 17/36

IPC 8 full level

A61B 8/12 (2006.01); **A61B 18/20** (2006.01); **A61B 18/24** (2006.01); **A61B 17/00** (2006.01); **A61B 17/22** (2006.01); **A61B 18/00** (2006.01)

CPC (source: EP)

A61B 8/12 (2013.01); **A61B 8/445** (2013.01); **A61B 8/4461** (2013.01); **A61B 18/245** (2013.01); **A61B 2017/00106** (2013.01); **A61B 2017/22051** (2013.01); **A61B 2018/1861** (2013.01)

Citation (search report)

- [A] US 4950267 A 19900821 - ISHIHARA KOICHIRO [JP], et al
- [A] EP 0329492 A2 19890823 - ANGELSEN BJORN A J [NO], et al
- [A] EP 0325836 A2 19890802 - BARD INC C R [US]
- See references of WO 9216140A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 9216140 A1 19921001; AU 1924192 A 19921021; CA 2106569 A1 19920922; EP 0576607 A1 19940105; EP 0576607 A4 19940713; JP H06510439 A 19941124

DOCDB simple family (application)

US 9202156 W 19920318; AU 1924192 A 19920318; CA 2106569 A 19920318; EP 92910395 A 19920318; JP 51060192 A 19920318