

Title (en)  
ELECTROCHEMICAL SENSOR PROBE WITH AN ELECTRICALLY NEUTRAL SENSOR ELEMENT

Title (de)  
ELEKTROCHEMISCHER MESSFÜHLER MIT EINEM POTENTIALFREI ANGEORDNETEN SENSORELEMENT

Title (fr)  
SONDE ELECTROCHIMIQUE DE MESURE A ELEMENT CAPTEUR SANS POTENTIEL

Publication  
**EP 0748441 A1 19961218 (DE)**

Application  
**EP 95938351 A 19951128**

Priority  
• DE 9501684 W 19951128  
• DE 4447306 A 19941231

Abstract (en)  
[origin: US5690800A] PCT No. PCT/DE95/01684 Sec. 371 Date Aug. 1, 1996 Sec. 102(e) Date Aug. 1, 1996 PCT Filed Nov. 28, 1995 PCT Pub. No. WO96/21147 PCT Pub. Date Jul. 11, 1996 Proposed is an electrochemical measuring instrument (10) for determining the oxygen content in gas mixtures, in particular exhaust gases from combustion engines, with a sensor element (14) that is installed potential-free in a metal casing (11). The sensor element (14) has an oxygen ion conducting solid electrolyte body (23) in the shape of a tube closed on one side, with electrodes (25, 26) and connections (27, 28), and is fitted inside the casing (11) with a metal sealing ring (20). The connection (27) which runs along the outer surface of solid electrolyte body (23) is covered with an electrically insulating layer (21), at least in the area surrounding sealing ring (20). In addition, a ductile cover layer (31) that spans solid electrolyte body (23) is applied over insulating layer (21) in the area surrounding sealing ring (20), with which the sensor element (14) rests on sealing ring (20).

IPC 1-7  
**G01N 27/407**

IPC 8 full level  
**G01N 27/409** (2006.01); **G01N 27/407** (2006.01)

CPC (source: EP US)  
**G01N 27/407** (2013.01 - EP US); **G01N 27/4078** (2013.01 - EP US)

Citation (search report)  
See references of WO 9621147A1

Cited by  
EP1195602A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**US 5690800 A 19971125**; DE 4447306 A1 19960704; EP 0748441 A1 19961218; JP H09510298 A 19971014; WO 9621147 A1 19960711

DOCDB simple family (application)  
**US 68733996 A 19960801**; DE 4447306 A 19941231; DE 9501684 W 19951128; EP 95938351 A 19951128; JP 52066996 A 19951128