

Title (en)

ATR REFLECTION ELEMENT AND ATR SPECTROSCOPY METHOD

Title (de)

ATR-REFLEXIONSELEMENT UND ATR-SPEKTROSKOPIEVERFAHREN

Title (fr)

ÉLÉMENT DE RÉFLEXION ATR ET PROCÉDÉ DE SPECTROSCOPIE ATR

Publication

EP 3350575 A1 20180725 (DE)

Application

EP 16762824 A 20160908

Priority

- DE 102015011687 A 20150914
- EP 2016071211 W 20160908

Abstract (en)

[origin: WO2017045998A1] The invention relates to an ATR reflection element comprising a main body with a first effective refractive index n1, a transmission layer which comprises a first layer boundary and an opposite second layer boundary, wherein the transmission layer is designed and configured to take up a fluid by way of the second layer boundary, wherein the transmission layer adjoins the main body, wherein the boundary between the transmission layer and the main body is formed by the first layer boundary, wherein the transmission layer at the second layer boundary has a second effective refractive index n2, wherein the first effective refractive index n1 is greater than the second effective refractive index n2 and the second effective refractive index n2 is greater than 1, wherein the first effective refractive index n1 and the second effective refractive index n2 are to be determined in each case in a vacuum at 25°C at the IR wavelength λ_{ATR} , wherein λ_{ATR} is selected from the wavelength range between 2 μm and 20 μm . Furthermore, the invention relates to an ATR spectrometer comprising said ATR reflection element, and an ATR spectroscopy method.

IPC 8 full level

G01N 21/552 (2014.01)

CPC (source: EP US)

A61B 5/1455 (2013.01 - US); **G01J 3/14** (2013.01 - US); **G01N 21/3577** (2013.01 - US); **G01N 21/552** (2013.01 - EP US);
G01N 2021/3595 (2013.01 - US)

Citation (search report)

See references of WO 2017045998A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102015011687 A1 20170316; **DE 102015011687 B4 20230511**; CN 108351298 A 20180731; EP 3350575 A1 20180725;
US 10585040 B2 20200310; US 2019011364 A1 20190110; WO 2017045998 A1 20170323

DOCDB simple family (application)

DE 102015011687 A 20150914; CN 201680063657 A 20160908; EP 16762824 A 20160908; EP 2016071211 W 20160908;
US 201615760005 A 20160908