

Title (en)
OPTICAL DETECTOR OF PARTICLES

Title (de)
OPTISCHER DETEKTOR VON PARTIKELN

Title (fr)
DÉTECTEUR OPTIQUE DE PARTICULES

Publication
EP 3574301 A1 20191204 (FR)

Application
EP 18700929 A 20180125

Priority
• FR 1750588 A 20170125
• EP 2018051890 W 20180125

Abstract (en)
[origin: WO2018138223A1] The present invention relates to a particle detector (60) comprising at least: o An optical device (15) configured to emit a luminous radiation; o A substrate (100) extending in a plane (x,y) and defining a channel (50) intended to receive particles (60), the channel (50) extending principally in a direction (z) perpendicular to the principal plane (x,y); characterized in that the detector comprises a matrix (20) of photo detectors (21) and a reflecting surface (41); the matrix (20) of photo detectors (21) and the reflecting surface (41) being disposed on mutually parallel planes and situated on either side of said portion of the substrate (100) so that a part of the luminous radiation passes through the channel (50) on being diffracted by a particle (60), and then reflects off the reflecting surface (41), and then reaches the matrix (20) of photo detectors (21).

IPC 8 full level
G01N 15/02 (2006.01); **G01N 15/14** (2006.01); **G01N 21/53** (2006.01)

CPC (source: EP KR US)
G01N 15/0211 (2013.01 - EP KR US); **G01N 15/14** (2013.01 - US); **G01N 15/1436** (2013.01 - EP KR); **G01N 15/1459** (2013.01 - EP KR); **G01N 21/4788** (2013.01 - EP KR US); **G01N 21/53** (2013.01 - EP KR); **G01N 15/06** (2013.01 - US); **G01N 2015/0046** (2013.01 - EP KR); **G01N 2015/1486** (2013.01 - EP KR); **G01N 2015/1493** (2013.01 - US)

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)
FR 3062209 A1 20180727; FR 3062209 B1 20210827; EP 3574301 A1 20191204; JP 2020507086 A 20200305; JP 7446111 B2 20240308; KR 102492137 B1 20230127; KR 20190112049 A 20191002; US 11204308 B2 20211221; US 2020033244 A1 20200130; WO 2018138223 A1 20180802

DOCDB simple family (application)
FR 1750588 A 20170125; EP 18700929 A 20180125; EP 2018051890 W 20180125; JP 2019560485 A 20180125; KR 20197024897 A 20180125; US 201816480136 A 20180125