

Title (en)
MICROWAVE HEATING DEVICE

Title (de)
MIKROWELLENHEIZVORRICHTUNG

Title (fr)
DISPOSITIF DE CHAUFFAGE PAR MICRO-ONDES

Publication
EP 3784003 A4 20210602 (EN)

Application
EP 19788617 A 20190415

Priority
• JP 2018081042 A 20180420
• JP 2019016076 W 20190415

Abstract (en)
[origin: EP3784003A1] Microwave heating device (50) includes: heating chamber (2) to accommodate heating target object (1); magnetron (3) to generate a microwave; waveguide (10) to transmit the microwave generated by the microwave generating unit to heating chamber 2; and directional coupler (6) including a reflected-wave detection unit to detect a part of a reflected wave. Directional coupler (6) is disposed at the position of antinode (302) of standing wave (301) that occurs inside waveguide (10). The present configuration makes possible an increase in detection accuracy of the reflected wave, resulting in more accurate detection of the state of object (1) being heated.

IPC 8 full level
H05B 6/70 (2006.01)

CPC (source: EP)
H05B 6/705 (2013.01)

Citation (search report)
• [A] US 2015244055 A1 20150827 - YOSHINO KOJI [JP], et al
• [A] JP 2014072117 A 20140421 - PANASONIC CORP
• [A] JP 2014049178 A 20140317 - PANASONIC CORP
• [A] US 4851630 A 19890725 - SMITH DONALD K [US]
• [A] GB 1034683 A 19660629 - MICROTHERM LTD
• See references of WO 2019203172A1

Cited by
CN113243988A

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)
EP 3784003 A1 20210224; EP 3784003 A4 20210602; EP 3784003 B1 20220518; CN 111052863 A 20200421; CN 111052863 B 20220715; JP 7316496 B2 20230728; JP WO2019203172 A1 20210422; WO 2019203172 A1 20191024

DOCDB simple family (application)
EP 19788617 A 20190415; CN 201980003793 A 20190415; JP 2019016076 W 20190415; JP 2020514363 A 20190415