

Title (en)
MICROWAVE HEATING DEVICE

Title (de)
MIKROWELLENHEIZVORRICHTUNG

Title (fr)
DISPOSITIF DE CHAUFFAGE AUX MICRO-ONDES

Publication
EP 3240364 B1 20190612 (EN)

Application
EP 15872163 A 20151204

Priority
• JP 2014259169 A 20141222
• JP 2015006018 W 20151204

Abstract (en)
[origin: EP3240364A1] Waveguide structure antenna (5) has ceiling surface (9) and side wall surfaces (10a, 10b, 10c) defining waveguide structure section (8), as well as has front opening (13) to emit microwaves from front opening (13) toward a heating-target object. Waveguide structure section (8) includes a coupling part joined to ceiling surface (9) to couple microwaves into an internal space of waveguide structure section (8). Waveguide structure section (8) emits circularly polarized waves from at least one microwave extraction opening (14) formed on ceiling surface (9) into a heating chamber. Microwave extraction opening (14) has a cross slot shape where two slits (20a, 20b) intersect, and is provided at a position shifted from pipe axis (V), where, among lengths from center point (P1) in an intersection area of the cross slot to tips of slits (20a, 20b), the length to the tip closest to the coupling part is shortest. According to this configuration, a heating-target object loaded on a central area of a loading surface can uniformly be heated.

IPC 8 full level
H05B 6/72 (2006.01); **F24C 7/02** (2006.01); **H05B 6/74** (2006.01)

CPC (source: EP)
H05B 6/725 (2013.01)

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

DOCDB simple family (publication)
EP 3240364 A1 20171101; EP 3240364 A4 20171227; EP 3240364 B1 20190612; CN 107006083 A 20170801; CN 107006083 B 20200609;
JP 2016119251 A 20160630; JP 6414683 B2 20181031; TW 201635857 A 20161001; TW I686104 B 20200221; WO 2016103586 A1 20160630

DOCDB simple family (application)
EP 15872163 A 20151204; CN 201580064896 A 20151204; JP 2014259169 A 20141222; JP 2015006018 W 20151204;
TW 104141504 A 20151210