

Title (en)

COOKWARE PLACEMENT BY HEATING CONTROL LOOP IN AN INDUCTION COOKING SYSTEM

Title (de)

KOCHGESCHIRRPLATZIERUNG DURCH HEIZUNGSREGELKREIS IN EINEM INDUKTIONSKOCHSYSTEM

Title (fr)

MISE EN PLACE D'UN RÉCIPIENT DE CUISSON PAR CHAUFFAGE DE BOUCLE DE RÉGULATION DANS UN SYSTÈME DE CUISSON PAR INDUCTION

Publication

EP 3836752 C0 20230607 (EN)

Application

EP 19215917 A 20191213

Priority

EP 19215917 A 20191213

Abstract (en)

[origin: EP3836752A1] This invention discloses a method for cookware placement (3) on an induction cooktop surface (10) using the temperature control loop (15). The method uses readings from the thermal sensor (11), and another sensors, e. g., 1-, 2- or 3-axis-accelerometer (12), microphone and/or wire loop (13), with modulating the heating power to induction coils and measuring respective signals in the cookware (3) for its placement identification. The alternating magnetic field vibrates the magnetic base of cookware (3) thus providing a signal to the accelerometer. The wire loop (13) senses and measures strength of alternating magnetic field having a priori known frequency, states relevant to the heating power On or Off states and also the modulation states of the heating power signal. Therefore, said vibrations, the measured magnetic and/or electric field strength and their modulations assist at least for identification of cookware placement, i.e., which cookware item is on which heating area and if placed correctly.

IPC 8 full level

H05B 6/06 (2006.01)

CPC (source: EP)

H05B 6/062 (2013.01); **H05B 2213/06** (2013.01)

Cited by

CN115988692A; EP4324362A1; WO2023036612A1; WO2024094267A1; WO2024094265A1; WO2024046640A1

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

Participating member state (EPC – UP)

AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT SE SI

DOCDB simple family (publication)

EP 3836752 A1 20210616; EP 3836752 B1 20230607; EP 3836752 C0 20230607

DOCDB simple family (application)

EP 19215917 A 20191213