

Title (en)

MICROWAVE OVEN AND METHOD OF DETERMINING FOOD.

Publication

EP 0615400 A3 19941005 (EN)

Application

EP 94300552 A 19940126

Priority

JP 5051993 A 19930311

Abstract (en)

[origin: EP0615400A2] Gaseous alcohol and steam emanating from food being heated are detected by an alcohol sensor (11) and a steam sensor (12) respectively. A control circuit (16) obtains maximum values V_{Amax} and V_{Gmax} serving as reference values from detection voltages generated by the alcohol and steam sensors (11, 12). Change rates DELTA A (V_A/V_{Amax}) and DELTA G (V_G/V_{Gmax}) are obtained on the basis of detection voltages V_A and V_G detected a predetermined time (40 seconds, for example) after initiation of the heating and a ratio r of the change rates is obtained from the expression, $r = (1 - \text{DELTA A}) / (1 - \text{DELTA G})$. The control circuit (16) compares a value of the ratio r with a threshold set for each kind of food to discriminate the kind of the food, thereby setting a subsequent heating time to execute the heating. Since the ratios r vary largely depending upon presence of an alcoholic component contained in the food, the kind of the food can be reliably discriminated. <IMAGE>

IPC 1-7

H05B 6/68; **H05B 6/80**

IPC 8 full level

H05B 6/68 (2006.01); **H05B 6/80** (2006.01)

CPC (source: EP KR)

H05B 6/6458 (2013.01 - EP); **H05B 6/68** (2013.01 - KR)

Citation (search report)

- [Y] EP 0074764 A1 19830323 - SHARP KK [JP]
- [A] EP 0000957 A1 19790307 - LITTON SYSTEMS INC [US]
- [A] EP 0238022 A2 19870923 - MATSUSHITA ELECTRIC IND CO LTD [JP]
- [A] DE 3205124 A1 19830818 - LICENTIA GMBH [DE]
- [A] FR 2509108 A1 19830107 - SHARP KK [JP]
- [Y] PATENT ABSTRACTS OF JAPAN vol. 11, no. 344 (M - 640) 11 November 1987 (1987-11-11)
- [A] PATENT ABSTRACTS OF JAPAN vol. 5, no. 18 (M - 053) 3 February 1981 (1981-02-03)
- [A] PATENT ABSTRACTS OF JAPAN vol. 15, no. 411 (M - 1170) 21 October 1991 (1991-10-21)

Cited by

EP1489361A3; EP3237805A4; GB2293027A; US5681496A; US10009965B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0615400 A2 19940914; **EP 0615400 A3 19941005**; **EP 0615400 B1 20000712**; DE 69425168 D1 20000817; KR 940022002 A 19941019

DOCDB simple family (application)

EP 94300552 A 19940126; DE 69425168 T 19940126; KR 19940004728 A 19940311