

Title (en)

METHOD AND ARRANGEMENT FOR THE HOMOGENEOUS HEATING WITH TRANSVERSE FLUX ELECTROMAGNETIC INDUCTION OF FLAT, CONDUCTIVE AND AMAGNETIC PRODUCTS

Publication

EP 0070232 B1 19860910 (FR)

Application

EP 82401267 A 19820706

Priority

FR 8113689 A 19810710

Abstract (en)

[origin: US4484048A] A process and apparatus for inductive heating of flat, thin, conductive, nonmagnetic products of variable dimensions. A plurality of currents are inductively generated in the product in such a way that elementary current arrays are formed in the product in both the longitudinal and lateral directions. Current arrays of local heating heterogeneity, each comprising at least one of the elementary current arrays, are defined, and the intensities of the inductively generated current in the arrays of local heating heterogeneity are controlled as a function of the volume of the array of local heating heterogeneity with which they are associated, so that the average value of power dissipated per unit volume in each array of local heating heterogeneity is approximately the same as for all other arrays. The apparatus specifically includes an inductor with individually controllable coils (poles) arranged to extend longitudinally and laterally over the area of the product to be heated. The positions of the boundaries of the product, together with other product data and desired heating data, are used to control the individual coils of the inductor so as to control the currents induced in the product as a function of the relative positions of the product boundaries and the individual coils.

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CPC (source: EP US)

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Citation (examination)

US 4054770 A 19771018 - JACKSON WILLIAM BARRY, et al

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FR2573947A1; FR2527587A1; EP0451075A1; FR2660743A1

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DOCDB simple family (publication)

EP 0070232 A1 19830119; **EP 0070232 B1 19860910**; DE 3273178 D1 19861016; FR 2509562 A1 19830114; FR 2509562 B1 19840629; JP S5851493 A 19830326; JP S6256632 B2 19871126; US 4484048 A 19841120

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EP 82401267 A 19820706; DE 3273178 T 19820706; FR 8113689 A 19810710; JP 11919982 A 19820710; US 39605082 A 19820707