

Title (en)

Heat treatment method and heat treatment furnace for plasma display panel substrate

Title (de)

Wärmebehandlungsverfahren und Wärmebehandlungsöfen für Plasma-Anzeigetafelsubstrat

Title (fr)

Procédé de traitement thermique et four de traitement thermique pour un substrat d'un panneau d'affichage à plasma

Publication

**EP 1439563 A3 20070711 (EN)**

Application

**EP 04000787 A 20040115**

Priority

JP 2003007793 A 20030116

Abstract (en)

[origin: EP1439563A2] A heat treatment method for performing a uniform heat treatment on the whole substrate (22), by carrying out temperature control in such a manner that the temperatures of each of the respective heating means (14) provided in the heating chamber (25,26,27) are set at different values in the transporting direction of the object (22) to be thermally treated, and maintaining temperatures in the chamber (25,26,27) larger in deviation in temperature distribution than a target temperature distribution within the substrate (22) by using a heat treatment furnace. The furnace comprises a plurality of sectioned heating chambers (25,26,27); transporting means (20) for transporting the substrate (22) to the next heating chamber (25,26,27); and separated heating means (14) provided in each heating chamber (25,26,27) in the transporting direction; each heating means (14) being capable of separately controlling a temperature by an independent control system; and a radiant heating means for selectively heating the portion lower in atmosphere temperature.

IPC 8 full level

**F27B 9/02** (2006.01); **H01J 9/48** (2006.01); **F27B 9/08** (2006.01); **F27B 9/40** (2006.01); **F27D 19/00** (2006.01); **H01J 9/24** (2006.01)

CPC (source: EP)

**H01J 9/242** (2013.01); **H01J 9/48** (2013.01)

Citation (search report)

- [X] JP H1137660 A 19990212 - CHUGAI RO KOGYO KAISHA LTD
- [A] US 5306322 A 19940426 - ISHIKAWA SHINJI [JP], et al
- [A] FR 2767813 A1 19990305 - CHUGAI RO KOGYO KAISHA LTD [JP]

Cited by

CN102721288A; CN104654819A; US11280547B2; US10502487B2

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Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

**EP 1439563 A2 20040721**; **EP 1439563 A3 20070711**; CN 1517962 A 20040804; JP 2004218956 A 20040805

DOCDB simple family (application)

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