

Title (en)

METHOD FOR PRODUCING A GASEOUS ATMOSPHERE FOR TREATING METALS

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER GASATMOSPHERE ZUR BEHANDLUNG VON METALLEN

Title (fr)

PROCEDE DE PRODUCTION D'UNE ATMOSPHERE GAZEUSE POUR LE TRAITEMENT DES METAUX

Publication

**EP 2376663 B1 20190102 (FR)**

Application

**EP 09797083 A 20091125**

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Abstract (en)

[origin: WO2010066979A1] The invention relates to a method for generating an atmosphere for heat treating metal parts in a furnace, which includes inserting, in at least one phase of the treatment cycle or at least one area of the heat treatment furnace, a mixture comprising gaseous CO<sub>2</sub> and ethanol in the form of fine droplets or vapour, so as to carry out the reaction between the CO<sub>2</sub> and the ethanol inside the furnace to form a mixture of hydrogen and CO according to the reaction: CO<sub>2</sub> + C<sub>2</sub>H<sub>5</sub>OH --> 3 CO + 3 H<sub>2</sub>, characterised in that the injection is performed in a phase of the treatment cycle or in an area of the heat treatment furnace in which the temperature is higher than 750 °C, while CO<sub>2</sub> alone or optionally mixed with nitrogen is injected in the phase or phases of the treatment cycle or in the area or areas of the furnace in which the temperature is lower than 750 °C.

IPC 8 full level

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