

THIS SHEET HAS BEEN
REPLACED

ABSTRACT

APPARATUS FOR INCINERATING WASTE MATERIAL

A waste material (A) such as waste tires is incinerated by way of dry distillation and gasification. In a gasification furnace (1), a portion of the waste material (A) is burned and the remainder is thermally decomposed by dry distillation with the heat of combustion, producing a combustible gas. A combustion furnace (2) combusts the combustible gas introduced from the gasification furnace (1). The gasification furnace (1) is supplied with an amount of oxygen required to burn the portion of the waste material (A) and to thermally decompose the remainder, while at the same time the amount of oxygen supplied to the gasification furnace (1) is controlled to maintain, at a substantially constant value, the temperature of the combustible gas during the dry distillation of the waste material (A). The gasification furnace (1) is also supplied with an amount of oxygen to accelerate the combustion and ashing of the waste material (A) when the dry distillation is finished. When the dry distillation is finished, the amount of oxygen supplied to the gasification furnace (1) is increased to accelerate the combustion and ashing of the waste material (A) if the temperature in the gasification furnace (1) increases up to a predetermined temperature or higher as the combustion of the waste material (A) progresses and also if the temperature of the combustible gas drops from the substantially constant value to a predetermined temperature or lower.

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