

Title (en)

METHOD AND DEVICE FOR ENERGY RECOVERY AFTER COMBUSTION OF SOLID COMBUSTIBLE MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ENERGIERÜCKGEWINNUNG NACH VERBRENNUNG EINES FESTEN BRENNBAREN MATERIALS

Title (fr)

PROCÉDÉ ET DISPOSITIF DE RÉCUPÉRATION D'ÉNERGIE APRÈS LA COMBUSTION DE MATÉRIAU COMBUSTIBLE SOLIDE

Publication

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Application

**EP 21216208 A 20211221**

Priority

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Abstract (en)

The invention relates to a method for energy recovery after combustion of solid combustible material, for example solid waste material. In the method, the cooling of flue gas, which flue gas is obtained by combustion of solid combustible material, is carried out in two steps, wherein in a first step the flue gas is cooled to a temperature of 620 to 680 °C via radiant heat transfer and in a second step the flue gas is further cooled by convection heat transfer with water to a temperature of at most 250 °C, through which convection heat transfer a heating of water to saturated steam and subsequently to superheated steam is also carried out, which superheated steam is used as such for energy-demanding processes and/or is used for converting the superheated steam into electricity. The invention also relates to a device for energy recovery after combustion of solid combustible material.

IPC 8 full level

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Citation (search report)

- [A] US 5950574 A 19990914 - MATSUDA JUNICHIRO [JP], et al
- [A] US 4479355 A 19841030 - GUIDE JOHN J [US], et al
- [A] US 2010077943 A1 20100401 - FOGASH KEVIN BOYLE [US], et al

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