Title (en)
Process for thermal regeneration of returned foundry sand and for treating dust formed during its circulation.

Title (de)
Verfahren zum thermischen Regenerieren von in Giessereien anfallenden Altsanden, sowie zur Behandlung der im Sandkreislauf anfallenden Stäube.

Title (fr)
Procédé pour la régénération thermique de sable de fonderie décodé et pour le traitement des poussières formées pendant sa circulation.

Publication
EP 0456027 B1 19940126 (DE)

Application
EP 91106468 A 19910422

Priority
DE 4015031 A 19900510

Abstract (en)
[origin: US5289920A] A process for thermally recovering old sand obtained in casting plants and for treating dust containing combustible organic components and incombustible inorganic components is disclosed. Dust obtained by mechanical preparation of the old sand is separated from the sand. The sand is used to form a fluid bed in a fluid-bed kiln having a post-combustion space and an outlet for releasing combustion gases. Dust containing combustible organic components and incombustible inorganic components is introduced into the fluid bed, the combustion of the organic components being used to maintain reaction temperature in the fluid bed. The heat of the fluid bed and the post-combustion space deactivates inorganic components of the dust, which are transported by released combustion gases to effectively separate the inorganic components of the dust from the thermally recovered old sand. These deactivated inorganic components of the dust can be separated from the released combustion gases for easy disposal.

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B22C 5/08

IPC 8 full level
B22C 5/08 (2006.01)

CPC (source: EP US)
B22C 5/08 (2013.01 - EP US); Y10S 241/10 (2013.01 - EP US)

Cited by
FR2700972A1; CN105170901A; CN117564215A; US10124399B2; WO2016150835A1

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI LU NL

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EP 0456027 A1 19911113; **EP 0456027 B1 19940126**; AT E100742 T1 19940215; DE 4015031 A1 19911114; DE 4015031 C2 19930617; DE 59100931 D1 19940310; US 5289920 A 19940301

DOCDB simple family (application)
EP 91106468 A 19910422; AT 91106468 T 19910422; DE 4015031 A 19900510; DE 59100931 T 19910422; US 69840291 A 19910510