

Title (en)
A FLUIDIZED BED HEAT EXCHANGER AND A CORRESPONDING INCINERATION APPARATUS

Title (de)
FLIESSBETTWÄRMETAUSCHER UND ENTSPRECHENDE VERBRENNUNGSVORRICHTUNG

Title (fr)
ÉCHANGEUR DE CHALEUR À LIT FLUIDISÉ ET APPAREIL D'INCINÉRATION CORRESPONDANT

Publication
EP 3222911 B1 20180919 (EN)

Application
EP 16161403 A 20160321

Priority
EP 16161403 A 20160321

Abstract (en)
[origin: EP3222911A1] A fluidized bed heat exchanger, which comprises at least one inlet opening (18), a heat exchange zone (40) and at least one outlet opening (48), arranged to each other in a way to allow a stream of solids, deriving from an associated combustor (C), to enter the heat exchanger (10) via said opening (18), to pass through said heat exchange zone (40) and to leave the heat exchanger (10) via said outlet opening (48), wherein the inlet opening (18) is arranged at an upper part of a runner (20), the runner (20) extends downwardly from an upper section of the heat exchanger towards a bottom-section (16r) of the heat exchanger (10) and ends close to said bottom-section (16r), thereby allowing a downwardly oriented flow of the solids through said runner (20), the runner (20) is open at its end close to said bottom-section (16r), thereby providing at least one passage (TR) for the solids to leave the runner (20) and to flow into at least one heat exchange zone (40), which is arranged adjacent to said runner (20) and provided with a fluidized bottom (16c), the outlet opening (48) is arranged at an upper part of the heat exchanger (10) and extends from the at least one heat exchange zone (40).

IPC 8 full level
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CPC (source: EP KR)
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Citation (opposition)
Opponent : Sumitomo SHI FW Energia Oy
• US 5218931 A 19930615 - GORZEGNO WALTER P [US]
• US 4915061 A 19900410 - GARCIA-MALLOL JUAN A [US]
• US 7194983 B2 20070327 - KOKKO ARI [FI]
• US 5463968 A 19951107 - ABDULALLY IQBAL F [US]
• EP 2884169 A1 20150617 - DOOSAN LENTJES GMBH [DE]
• US 5325823 A 19940705 - GARCIA-MALLOL JUAN A [US]
• "Steam. its generation and use", BABCOCK & WILCOX, September 2005 (2005-09-01)

Cited by
CN111271699A

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