

Title (en)  
METHOD AND DEVICE FOR THE TREATMENT OF FLUE GASES OF FOSSIL-FIRED STEAM POWER PLANTS USING AN ADSORPTION MEDIUM

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR RAUCHGASBEHANDLUNG VON RAUCHGASEN FOSSIL BEFEUERTER DAMPFKRAFTWERKE MITTELS EINES ADSORPTIONSMITTELS

Title (fr)  
PROCÉDÉ ET DISPOSITIF DE TRAITEMENT DE GAZ DE FUMÉE DE CENTRALES THERMIQUES À VAPEUR À COMBUSTIBLES FOSSILES AU MOYEN D'UN ADSORBANT

Publication  
**EP 3551317 A1 20191016 (DE)**

Application  
**EP 17816591 A 20171201**

Priority  
• DE 102016124042 A 20161212  
• EP 2017081096 W 20171201

Abstract (en)  
[origin: WO2018108561A1] In the context of a flue gas treatment method in which, downstream, in the flue gas flow direction (R), of a fossil-fired boiler of a steam power plant a carbon-containing adsorption medium in the form of fine particles, in particular activated charcoal or activated coke, is introduced and/or sprayed into a flue gas flow flowing in a flue gas duct (5) of the boiler in order to separate out heavy metals, in particular mercury, the purpose of the invention is to identify a solution by means of which the distribution of the carbon-containing adsorbent in the flue gas is improved and the separation capacity thereof for heavy-metals, in particular mercury, contained in the flue gas is increased. This is achieved by generating, in the flue gas duct (5) and by means of at least one first swirling means (10, 10'), in particular a first static mixer, arranged in the flue gas duct (5), at least a first flue gas swirling zone, in particular on a downstream side, with respect to the flue gas flow direction (R), of the at least one first swirling means (10, 10'), and by introducing and/or spraying the adsorption medium into the swirled flue gas flow at least in this first flue gas swirling zone.

IPC 8 full level  
**B01D 53/64** (2006.01); **B01F 5/06** (2006.01); **F23J 15/00** (2006.01)

CPC (source: EP US)  
**B01D 53/64** (2013.01 - EP); **B01F 23/32** (2022.01 - EP); **B01F 25/3141** (2022.01 - EP); **B01F 25/4316** (2022.01 - EP); **B01F 25/43161** (2022.01 - EP US); **F23J 15/003** (2013.01 - EP); **B01D 2253/102** (2013.01 - EP); **B01D 2257/60** (2013.01 - EP); **B01D 2257/602** (2013.01 - EP); **B01D 2258/0283** (2013.01 - EP); **B01D 2259/128** (2013.01 - EP); **F23J 2215/60** (2013.01 - EP); **F23J 2219/30** (2013.01 - EP)

Citation (search report)  
See references of WO 2018108561A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102016124042 A1 20180614**; EP 3551317 A1 20191016; WO 2018108561 A1 20180621

DOCDB simple family (application)  
**DE 102016124042 A 20161212**; EP 17816591 A 20171201; EP 2017081096 W 20171201