Title (en)

PROCESS AND APPARATUS FOR DESULFURATION OF A GAS STREAM CONTAINING HYDROGEN SULFIDE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ENTSCHWEFELUNG EINES SCHWEFELWASSERSTOFF ENTHALTENDEN GASSTROMS

Title (fr)

PROCÉDÉ ET APPAREIL À DÉSULFURER UN COURANT DE GAZ CONTENANT DE L'HYDROGÈNE SULFURÉ

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Application

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Abstract (en)

[origin: WO2018206228A1] The invention relates to a method for the desulphurisation of a gas stream (3) containing hydrogen sulphide (9), in particular a combustion gas stream (3) which can be used for combustion in a gas turbine (31), wherein: the gas stream (3) is brought into contact with a scrubbing medium (7) containing a catalyst (13) to absorb the hydrogen sulphide (9), forming elementary sulphur (15); the catalyst (13) is reduced on formation of the elementary sulphur (15); the scrubbing medium (21) containing the reduced catalyst (17) is fed to a regeneration stage (49) in which the reduced catalyst (17) is regenerated by oxidation with an oxygen-containing gas (53) which is fed to the regeneration stage (49); the oxygen-containing gas (53) is fed to the regeneration stage (49) from a compression stage (59) of the gas turbine (31); and the gas (73) which is depleted of oxygen during regeneration of the catalyst (17) is fed to at least one turbine stage (77) fluidically connected downstream of the compression stage (59). The invention further relates to a method for the desulphurisation of a gas stream (3) containing hydrogen sulphide (9).

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