

Title (en)
IGCC POWER PLANT HAVING FLUE GAS RECIRCULATION AND FLUSHING GAS

Title (de)
IGCC-KRAFTWERK MIT RAUCHGASRÜCKFÜHRUNG UND SPÜLGAS

Title (fr)
CENTRALE IGCC (GAZÉIFICATION INTÉGRÉE À UN CYCLE COMBINÉ) AVEC RECYCLAGE DES GAZ DE FUMÉE ET GAZ DE BALAYAGE

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Application
EP 09776071 A 20090805

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Abstract (en)
[origin: WO2010031366A2] The invention relates to a method for operating an IGCC power plant, wherein at least one shift stage is supplied to the coal gas from the gasifier, comprising CO and hydrogen, wherein a conversion primarily into CO₂ and hydrogen takes place and the coal gas is subjected to at least one gas scrubbing step. The coal gas is conducted across a membrane, which at least partially selectively separates the hydrogen from the coal gas. In order to achieve driving potential in the membrane, a flushing gas is used on the side of the permeate. The retentate depleted with hydrogen is fed to a CO₂ conditioning process, while the separated hydrogen is fed together with the flushing gas to a gas turbine as fuel gas. According to the invention, the flushing gas used for the membrane is part of the waste gas produced in the gas turbine after said waste gas has left the waste heat boiler connected downstream of the gas turbine. In the power plant according to the invention, the gas turbine at the same time functions as a means for providing the flushing gas. The power plant comprises a line from the waste heat boiler connected downstream of the gas turbine to the permeate side of the membrane.

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Citation (search report)
See references of WO 2010031366A2

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