

Title (en)
GASIFICATION REACTOR AND ITS USE

Title (de)
VERGASUNGSREAKTOR UND VERWENDUNG DAVON

Title (fr)
RÉACTEUR DE GAZÉIFICATION ET SON UTILISATION

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Abstract (en)
[origin: WO2007125047A1] The present invention relates to a Gasification reactor and its use, said reactor comprising: a pressure shell (31) for maintaining a pressure higher than atmospheric pressure; a slag bath located in a lower part of the pressure shell; a gasifier wall (32) arranged inside the pressure shell (31) defining a gasification chamber (33) wherein during operation the synthesis gas can be formed, a lower open part of the gasifier wall which is in fluid communication (7) with the slag bath and an open upper end (34) of the gasifier wall (32) which is in fluid communication with a quench zone (35); a quench zone (35) comprising a tubular formed part (36) positioned within the pressure shell (31), open at its lower and upper end and having a smaller diameter than the pressure shell (31) thereby defining an annular space (37) around the tubular part (36), wherein the lower open end of the tubular formed part (36) is fluidly connected to the upper end of the gasifier wall (32) and the upper open end of the tubular formed part is in fluid communication with the annular space (37); wherein at the lower end of the tubular part (36) injecting means (39) are present for injecting a liquid or gaseous cooling medium and wherein in the annular space (37) injecting means (40) are present to inject a liquid in the form of a mist and wherein an outlet (41) for synthesis gas is present in the wall of the pressure shell (31) fluidly connected to said annular space (37).

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