

Title (en)  
GAS COOLER FOR A SYNTHESIS GAS GENERATOR

Publication  
**EP 0077852 B1 19860625 (DE)**

Application  
**EP 81109674 A 19811113**

Priority  
CH 678581 A 19811023

Abstract (en)  
[origin: US4487611A] The gas cooler has a downcomer bounded by radiant cooling walls and a waterbath at the end of the downcomer. The depth of the waterbath is several times its horizontal extent and the waterbath is flowed through downwardly by water. The bath is connected by way of a pump, heat exchanger and a feed line to a water circuit. Means are provided to control the water temperature at its entry into the waterbath so that the entry temperature is maintained at a value somewhere between the dew point of the synthesis gas and the evaporation point of water at the working pressure of the synthesis gas. The result is substantial obviation of evaporation of water from the waterbath and the associated heat losses.

IPC 1-7  
**C10J 3/86**; **F22B 1/18**

IPC 8 full level  
**C10J 3/46** (2006.01); **C10J 3/48** (2006.01); **C10J 3/86** (2006.01); **F22B 1/18** (2006.01)

CPC (source: EP US)  
**C10J 3/485** (2013.01 - EP US); **C10J 3/526** (2013.01 - EP US); **C10J 3/723** (2013.01 - EP US); **C10J 3/845** (2013.01 - EP US);  
**C10J 3/86** (2013.01 - EP US); **C10K 1/101** (2013.01 - EP US); **F22B 1/1846** (2013.01 - EP US); **C10J 2300/093** (2013.01 - EP US);  
**C10J 2300/0956** (2013.01 - EP US); **Y10S 48/02** (2013.01 - EP US)

Cited by  
US4781500A; ITM120102158A1; KR100728517B1; EP0318071A1; CN114395422A; EP0452653A1; DE102006040077C5

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