

Title (en)
IMPROVED POWER PLANT

Title (de)
VERBESSERTES KRAFTWERK

Title (fr)
CENTRALE AMÉLIORÉE

Publication
EP 2193258 A2 20100609 (EN)

Application
EP 07804235 A 20070911

Priority
GB 2007003440 W 20070911

Abstract (en)
[origin: WO2009034285A2] An integrated gasifier combined cycle power plant comprises a gasifier (10) and at least one gas turbine (20) downstream in the syngas stream from the gasifier (12) and driven by the syngas stream therefrom. A burner (30) superheats steam produced by the cooling of the fuel gas stream between the gasifier outlet and the gas turbine (20), by combusting hydrogen and oxygen in the steam to heat it. At least one secondary turbine (32) downstream of the burner (30) is driven by the superheated steam therefrom. This allows energy to be recovered very efficiently, improving the overall thermal efficiency of the plant whilst requiring much simplified steam pipework in comparison to conventional systems.

IPC 8 full level
F01K 23/06 (2006.01); **F01K 3/18** (2006.01); **F22B 1/00** (2006.01); **F22G 1/12** (2006.01)

CPC (source: EP)
F01K 3/188 (2013.01); **F01K 23/068** (2013.01); **F02C 3/28** (2013.01); **F22B 1/003** (2013.01); **F22G 1/12** (2013.01); **F05D 2220/722** (2013.01); **F05D 2220/75** (2013.01); **Y02E 20/16** (2013.01); **Y02E 20/18** (2013.01); **Y02E 50/10** (2013.01)

Citation (search report)
See references of WO 2009034285A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2009034285 A2 20090319; **WO 2009034285 A3 20091203**; EP 2193258 A2 20100609

DOCDB simple family (application)
GB 2007003440 W 20070911; EP 07804235 A 20070911