

Title (en)  
GASIFICATION REACTOR

Title (de)  
VERGASUNGSREAKTOR

Title (fr)  
RÉACTEUR DE GAZÉIFICATION

Publication  
**EP 2784145 A1 20141001 (EN)**

Application  
**EP 12851812 A 20121116**

Priority  
• RU 2011146926 A 20111121  
• RU 2012000949 W 20121116

Abstract (en)  
The gasification reactor relates to the field of power engineering, more specifically to methods and devices for producing energy carriers in the form of hot water, steam and hot synthesis gas, producing electrical energy, heat and cold, and synthesizing liquid hydrocarbons. The technical result is that of increasing the calorific value of the synthesis gas produced without increasing the size of the apparatus, which is achieved by additionally equipping the reactor with: a lower agitating system having an upper vaned agitator situated in a heated truncated cone that is hermetically secured inside a housing; heat removing water rods, situated in a gas duct; an unsaturated hydrocarbon synthesis zone, situated below the housing of the heated truncated cone; and a methane synthesis zone, situated at the inlet to the gas duct of a water boiler; and also by virtue of positioning the nozzle of a burner inside the hermetic cavity between the walls of the heated cone and the housing thereof, as well as covering the gasification reactor on the outside with a heat-insulating material, and lining the inside surface of the primary gasification zone with heat-protective materials.

IPC 8 full level  
**C10J 3/20** (2006.01)

CPC (source: EP)  
**C10J 3/20** (2013.01); **C10J 3/32** (2013.01); **C10J 3/42** (2013.01); **C10L 3/08** (2013.01); **F22B 1/18** (2013.01); **F22B 13/02** (2013.01); **C10J 2200/156** (2013.01); **C10J 2300/0956** (2013.01); **C10J 2300/0976** (2013.01); **C10J 2300/1246** (2013.01); **C10J 2300/1662** (2013.01); **C10J 2300/1687** (2013.01); **C10J 2300/1884** (2013.01); **C10J 2300/1892** (2013.01); **C10L 2290/02** (2013.01)

Citation (search report)  
See references of WO 2013077772A1

Cited by  
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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
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