

Title (en)

GAS TURBINE SYSTEM FOR WORKING FLUID IN THE FORM OF A CARBON DIOXIDE/WATER MIXTURE

Title (de)

GASTURBINENANLAGE FÜR EIN ARBEITSMEDIUM IN FORM EINES KOHLENDIOXID/WASSER-GEMISCHES

Title (fr)

SYSTEME DE TURBINE A GAZ DESTINE A UN FLUIDE DE TRAVAIL SE PRESENTANT SOUS LA FORME D'UN MELANGE DIOXYDE DE CARBONE/EAU

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Application

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Abstract (en)

[origin: WO03027461A1] The invention concerns a gas turbine system (16) consisting of a compressor (1), a combustion chamber (2), a turbine (3) and at least a cold source (4), said turbine system being driven by a carbon dioxide/water mixture. In the combustion chamber (2), a hydrocarbon reacts as fuel (7) with oxygen (8), and the excess carbon dioxide thus produced and water (14) are tapped in the circuit. The compressor (1) and the turbine (3) respectively comprise a rotor with vanes, and a housing with flow channels and guide grids. The invention is characterized in that the compressor (1) and/or the turbine (3) are adapted to the working fluid expansion properties, different from those of air, by modification of the flow channels, the vanes and/or guide grids.

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