Title (en)

METHOD AND DEVICE FOR AIR-CONDITIONING A ROOM WITH AN AIR MIXTURE HAVING A LOWERED OXYGEN PARTIAL PRESSURE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KLIMATISIERUNG EINES RAUMES MIT EINEM LUFTGEMISCH MIT ABGESENKTEM SAUERSTOFFPARTIALDRUCK

Title (fr)

PROCEDE ET DISPOSITIF DE CLIMATISATION D'UNE SALLE AU MOYEN D'UN MELANGE D'AIR A PRESSION PARTIELLE D'OXYGENE REDUITE

Publication

EP 1654051 A1 20060510 (DE)

Application

EP 04740877 A 20040709

Priority

- EP 2004007598 W 20040709
- DE 10332565 A 20030711
- DE 10343342 A 20030912

Abstract (en)

[origin: WO2005007273A1] The invention relates to a method and a device (10) for air-conditioning at least one room (38) with an air mixture having a lowered oxygen partial pressure in comparison with ambient air in an overall pressure substantially corresponding to an ambient air pressure. According to the inventive method, at least part of the oxygen (O2) contained in the ambient air is chemically reduced to a reaction product, preferably the reaction product is separated and the thus treated low-oxygen air mixture is fed as inlet air to the room to be air-conditioned. A core element of the inventive device is an O2 reductor (16) for reducing at least part of the oxygen contained in the ambient air into a reaction product. The O2 reductor (16) can preferably be a fuel cell, a combustion engine, a turbine or a combustion chamber.

IPC 1-7

B01D 53/46; B01D 53/86

IPC 8 full level

B01D 53/46 (2006.01); **B01D 53/86** (2006.01)

CPC (source: EP)

B01D 53/46 (2013.01); **B01D 53/86** (2013.01); A63B 2213/006 (2013.01); Y02C 20/20 (2013.01)

Citation (search report)

See references of WO 2005007273A1

Citation (examination)

RU 2129903 C1 19990510 - SEREBRJAKOV VLADIMIR NIKOLAEVI

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

HR LT LV

DOCDB simple family (publication)

WO 2005007273 A1 20050127; EP 1654051 A1 20060510; RU 2006104981 A 20070910; RU 2325942 C2 20080610

DOCDB simple family (application)

EP 2004007598 W 20040709; EP 04740877 A 20040709; RU 2006104981 A 20040709