

Title (en)

OZONE DECOMPOSITION CATALYST FOR USE IN A STERILISATION AND/OR DECONTAMINATION PROCESS

Title (de)

KATALYSATOR ZUR OZONZERSETZUNG FÜR DIE VERWENDUNG IN EINEM STERILISATIONS- UND/ODER DEKONTAMINIERUNGSVERFAHREN

Title (fr)

CATALYSEUR DE DÉCOMPOSITION D'OZONE DESTINÉ À ÊTRE UTILISÉ DANS UN PROCÉDÉ DE STÉRILISATION ET/OU DE DÉCONTAMINATION

Publication

**EP 2640510 A1 20130925 (EN)**

Application

**EP 11808243 A 20111117**

Priority

- GB 201019389 A 20101117
- GB 2011001623 W 20111117

Abstract (en)

[origin: GB2485546A] A catalyst comprising at least one active metal or metal oxide supported on a mixed titanium oxide/silicon oxide support is used in the conversion of ozone to oxygen at a temperature of less than 40°C in a humid atmosphere. In a further aspect, the catalyst is employed in a method of sterilisation, decontamination and/or sanitation of an enclosed environment, the method comprising producing a humidified enclosed environment; discharging ozone into the humidified environment; maintaining the ozone and water vapour pressure levels at a concentration that will achieve the required degree of decontamination; and passing the substantially decontaminated, sterilised and/or sanitised environment through the ozone depletion catalyst to reduce the concentration of ozone to a predetermined level. Preferably, the catalytically active metal is selected from iron, cobalt, nickel, silver, copper, manganese, zinc and any platinum group metal, or any oxide thereof, and most preferably is palladium. Optionally, a hydrocarbon containing a carbon-carbon double bond may be introduced into the environment to aid removal of the ozone.

IPC 8 full level

**B01J 21/08** (2006.01); **A61L 2/20** (2006.01); **A61L 9/015** (2006.01); **B01D 53/86** (2006.01); **B01J 23/06** (2006.01); **B01J 23/34** (2006.01); **B01J 23/40** (2006.01); **B01J 23/44** (2006.01); **B01J 23/50** (2006.01); **B01J 23/72** (2006.01); **B01J 23/74** (2006.01)

CPC (source: EP GB)

**A61L 2/202** (2013.01 - GB); **A61L 9/015** (2013.01 - GB); **B01D 53/76** (2013.01 - EP); **B01D 53/8675** (2013.01 - EP); **B01J 21/08** (2013.01 - EP); **B01J 23/44** (2013.01 - EP); **A61L 2/202** (2013.01 - EP); **A61L 2202/13** (2013.01 - EP); **A61L 2202/25** (2013.01 - GB); **A61L 2209/212** (2013.01 - GB); **B01D 2251/104** (2013.01 - EP); **B01D 2251/208** (2013.01 - EP); **B01D 2255/1023** (2013.01 - EP); **B01D 2255/20707** (2013.01 - EP); **B01D 2255/30** (2013.01 - EP); **B01D 2257/80** (2013.01 - EP); **B01D 2257/91** (2013.01 - EP); **B01J 21/063** (2013.01 - EP); **B01J 23/06** (2013.01 - EP); **B01J 23/34** (2013.01 - EP); **B01J 23/40** (2013.01 - EP); **B01J 23/50** (2013.01 - EP); **B01J 23/72** (2013.01 - EP); **B01J 23/74** (2013.01 - EP)

Citation (search report)

See references of WO 2012066295A1

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)

**GB 201019389 D0 20101229**; **GB 2485546 A 20120523**; EP 2640510 A1 20130925; WO 2012066295 A1 20120524

DOCDB simple family (application)

**GB 201019389 A 20101117**; EP 11808243 A 20111117; GB 2011001623 W 20111117