

Title (en)

Process for catalytic oxidation of hydrogen chloride

Title (de)

Verfahren zur katalytischen Oxidation von Chlorwasserstoff

Title (fr)

Procede d'oxydation de chlorure d'hydrogène

Publication

EP 2384240 A1 20111109 (DE)

Application

EP 09799103 A 20091222

Priority

- EP 2009067720 W 20091222
- EP 08173107 A 20081230
- EP 09799103 A 20091222

Abstract (en)

[origin: WO2010076262A1] The invention relates to a catalyst for gas-phase reactions having high mechanical stability, containing one or more active metals on a substrate containing aluminum oxide as the substrate material, characterized in that the aluminum oxide portion of the substrate is composed substantially of alpha aluminum oxide. Particularly preferred catalysts according to the invention contain a) 0.001 to 10 wt% ruthenium, copper, and/or gold, b) 0.1 to 10 wt% nickel, c) 0 to 5 wt% of one or more alkaline-earth metals, d) 0 to 5 wt% of one or more alkali metals, e) 0 to 5 wt% of one or more rare-earth elements, f) 0 to 5 wt% of one or more other metals, selected from the group comprising palladium, platinum, iridium, and rhenium, in each case relative to the total weight of the catalyst, on the substrate made of alpha-Al₂O₃. The catalysts are preferably used in hydrogen chloride oxidation (Deacon reaction).

IPC 8 full level

B01J 23/89 (2006.01); **B01J 23/96** (2006.01); **B01J 38/42** (2006.01); **B01J 38/44** (2006.01); **B01J 38/68** (2006.01)

CPC (source: EP KR US)

B01J 21/04 (2013.01 - KR); **B01J 23/892** (2013.01 - EP KR US); **B01J 23/8933** (2013.01 - EP US); **B01J 23/96** (2013.01 - EP KR US);
B01J 35/40 (2024.01 - KR); **B01J 37/0201** (2013.01 - KR); **B01J 38/42** (2013.01 - KR); **C01B 7/04** (2013.01 - EP KR US);
B01J 21/04 (2013.01 - EP US); **B01J 35/40** (2024.01 - EP US); **B01J 37/0201** (2013.01 - EP US); **B01J 38/12** (2013.01 - EP US);
Y02P 20/584 (2015.11 - EP KR US)

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2010076262 A1 20100708; CN 102271809 A 20111207; EP 2384240 A1 20111109; JP 2012513892 A 20120621; JP 5642706 B2 20141217;
KR 20110107350 A 20110930; US 2011268649 A1 20111103

DOCDB simple family (application)

EP 2009067720 W 20091222; CN 200980153329 A 20091222; EP 09799103 A 20091222; JP 2011544021 A 20091222;
KR 20117017371 A 20091222; US 200913142462 A 20091222