

Title (en)  
PURIFICATION OF A MIXTURE OF H SB 2 /SB /CO BY CATALYSIS OF THE NO SB X /SB

Title (de)  
REINIGUNG EINES H SB 2 /SB /CO-GEMISCHS DURCH KATALYSE DER NO SB X /SB

Title (fr)  
PURIFICATION D'UN MELANGE H SB 2 /SB /CO PAR CATALYSE DES NO SB X /SB

Publication  
**EP 1636134 A1 20060322 (FR)**

Application  
**EP 04767312 A 20040610**

Priority  
• FR 2004001447 W 20040610  
• FR 0307006 A 20030611

Abstract (en)  
[origin: FR2856048A1] The gas flow is placed in contact with at least one catalyst bed containing copper and/or palladium at a temperature of between 100 and 200 deg. C to eliminate at least part of the nitrogen oxides : The temperature is preferably between 120 and 180 deg. C and the pressure between 10 and 80 bars, preferably between 20 and 50 bars. The hourly volume flow rate is between 1000 and 10000 Nm<sup>3</sup>/h of gas/m<sup>3</sup> of catalyst, preferably between 2000 and 6000 Nm<sup>3</sup>/h of gas/m<sup>3</sup> of catalyst. The catalyst contains copper. The gas flow contains hydrogen, carbon monoxide and methane. The nitrogen oxides are converted to water, O<sub>2</sub>, NH<sub>3</sub> and/or N<sub>2</sub>. The water and NH<sub>3</sub> from the catalysis are eliminated in one or more adsorption stages. At least one adsorption stage uses one or more adsorbents which are zeolites, exchanged or not, activated aluminas, silica gels or their mixtures or combinations. The gas flow to be separated contains 10 to 90% by volume H<sub>2</sub> and 10 to 90% by volume CO and some methane. The catalyst is protected by at least one guard bed upstream of the catalyst.

IPC 1-7  
**C01B 3/58**; B01D 53/56; B01D 53/86

IPC 8 full level  
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