

Title (en)  
METHOD AND APPARATUS UTILISING HYDROGEN PEROXYDE TO REDUCE SO<sub>x</sub>, NO<sub>x</sub> AND HEAVY METAL EMISSIONS

Title (de)  
VERFAHREN UND VORRICHTUNG UNTER VERWENDUNG VON WASSERSTOFFPEROXID ZUR VERRINGERUNG VON SO<sub>x</sub>-, NO<sub>x</sub>- UND SCHWERMETALLEMISSIONEN

Title (fr)  
PROCÉDÉ ET APPAREIL UTILISANT DU PEROXYDE D'HYDROGÈNE POUR RÉDUIRE LES ÉMISSIONS DE SO<sub>x</sub>, NO<sub>x</sub> ET DE MÉTAUX LOURDS

Publication  
**EP 1761325 A1 20070314 (EN)**

Application  
**EP 05734840 A 20050408**

Priority

- US 2005011864 W 20050408
- US 84541804 A 20040511
- US 2004027778 W 20040826
- US 4029405 A 20050114

Abstract (en)  
[origin: WO2005113116A1] Methods and apparatus utilizing hydrogen peroxide are useful to reduce SO<sub>x</sub> and mercury (or other heavy metal) emissions from combustion flue gas streams. The methods and apparatus may further be modified to reduce NO<sub>x</sub> emissions. Continuous concentration of hydrogen peroxide to levels approaching or exceeding propellant-grade hydrogen peroxide facilitates increased system efficiency. In this manner, combustion flue gas streams can be treated for the removal of SO<sub>x</sub> and heavy metals, while isolating useful by-products streams of sulfuric acid as well as solids for the recovery of the heavy metals. Where removal of NO<sub>x</sub> emissions is included, nitric acid may also be isolated for use in fertilizer or other industrial applications.

IPC 8 full level  
**B01D 53/60** (2006.01); **B01D 53/50** (2006.01); **B01D 53/56** (2006.01); **B01D 53/64** (2006.01); **B01D 53/75** (2006.01); **C01B 17/05** (2006.01); **C01B 17/50** (2006.01); **C01B 21/40** (2006.01)

CPC (source: EP)  
**B01D 53/507** (2013.01); **B01D 53/56** (2013.01); **B01D 53/64** (2013.01); **B01D 53/75** (2013.01); **B01D 2251/106** (2013.01)

Citation (search report)  
See references of WO 2005113116A1

Citation (examination)  
US 5397549 A 19950314 - NEWMAN DAVE B [CA]

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005113116 A1 20051201**; AU 2005245336 A1 20051201; CA 2565750 A1 20051201; EP 1761325 A1 20070314; MX PA06012988 A 20061220

DOCDB simple family (application)  
**US 2005011864 W 20050408**; AU 2005245336 A 20050408; CA 2565750 A 20050408; EP 05734840 A 20050408; MX PA06012988 A 20050408