

Title (en)  
REDUCED-EMISSIONS COMBUSTION UTILIZING MULTIPLE-COMPONENT METALLIC COMBUSTION CATALYST

Title (de)  
VERBRENNUNG MIT REDUZIERTEN EMISSIONEN UNTER VERWENDUNG EINES AUS MEHREREN BAUTEILEN BESTEHENDEN  
VERBRENNUNGSKATALYSATORS AUS METALL

Title (fr)  
COMBUSTION A EMISSIONS REDUITES OBTENUE AU MOYEN D'UN CATALYSEUR DE COMBUSTION METALLIQUE A COMPOSANTS  
MULTIPLES

Publication  
**EP 1846540 A2 20071024 (EN)**

Application  
**EP 06718828 A 20060119**

Priority  
• US 2006001815 W 20060119  
• US 3837105 A 20050119

Abstract (en)  
[origin: US2005188605A1] Diesel fuels containing low concentrations of specific bimetallic or trimetallic fuel-borne catalysts reduce particulates and other emissions without the use of after treatment devices, such as filters or catalysts, e.g., diesel particulate filters (DPF's) or diesel oxidation catalysts (DOC's) in the case of diesel engines. By utilizing a fuel containing a fuel-soluble catalyst comprised of platinum and at least one additional metal comprising cerium and/or iron, production of pollutants of the type generated by incomplete combustion is reduced. Preferred fuel borne catalyst levels will be low, e.g., from 0.05 to 0.5 ppm for platinum and 3 to 8 ppm for cerium and/or iron, thereby providing effective engine out emissions reductions without any aftertreatment device. Performance of lightly catalyzed aftertreatment devices will be improved with the subject invention.

IPC 8 full level  
**C10L 1/30** (2006.01)

CPC (source: EP KR US)  
**C10L 1/10** (2013.01 - EP KR US); **C10L 1/30** (2013.01 - KR); **C10L 10/02** (2013.01 - EP US); **C10L 10/06** (2013.01 - EP US); **F01N 3/106** (2013.01 - EP US); **F02D 19/0652** (2013.01 - EP US); **F02M 25/14** (2013.01 - EP US); **F02M 27/02** (2013.01 - EP US); **C10L 1/1241** (2013.01 - EP US); **C10L 1/125** (2013.01 - EP US); **C10L 1/1814** (2013.01 - EP US); **C10L 1/1881** (2013.01 - EP US); **C10L 1/1886** (2013.01 - EP US); **C10L 1/1888** (2013.01 - EP US); **C10L 1/189** (2013.01 - EP US); **C10L 1/301** (2013.01 - EP US); **C10L 1/305** (2013.01 - EP US); **F01N 3/023** (2013.01 - EP US); **F01N 3/035** (2013.01 - EP US); **F01N 2430/04** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US); **Y02T 10/30** (2013.01 - EP US)

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 LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**US 2005188605 A1 20050901**; AU 2006206468 A1 20060727; BR PI0606586 A2 20090707; CA 2595315 A1 20060727; CN 101160379 A 20080409; CN 101160379 B 20120502; EP 1846540 A2 20071024; EP 1846540 A4 20091230; HK 1114875 A1 20081114; JP 2008526510 A 20080724; JP 5020830 B2 20120905; KR 101077015 B1 20111026; KR 20070094861 A 20070921; MX 2007008818 A 20070927; NO 20074181 L 20071012; RU 2007129120 A 20090227; SG 143272 A1 20080627; WO 2006078764 A2 20060727; WO 2006078764 A3 20071004; ZA 200706580 B 20080625

DOCDB simple family (application)  
**US 3837105 A 20050119**; AU 2006206468 A 20060119; BR PI0606586 A 20060119; CA 2595315 A 20060119; CN 200680008684 A 20060119; EP 06718828 A 20060119; HK 08110458 A 20080922; JP 2007552249 A 20060119; KR 20077018828 A 20060119; MX 2007008818 A 20060119; NO 20074181 A 20070814; RU 2007129120 A 20060119; SG 2008039026 A 20060119; US 2006001815 W 20060119; ZA 200706580 A 20070807