

Title (en)

METHODS FOR REDUCING HARMFUL EMISSIONS FROM A DIESEL ENGINE

Title (de)

METHODEN ZUR VERRINGERUNG DES SCHADSTOFFAUSSTOSSES EINES DIESELMOTORS

Title (fr)

PROCEDES PERMETTANT DE DIMINUER LES EMISSIONS TOXIQUES D'UN MOTEUR DIESEL

Publication

EP 0854903 A4 19990421 (EN)

Application

EP 96925366 A 19960718

Priority

- US 9611908 W 19960718
- US 50390995 A 19950718
- US 51497895 A 19950814

Abstract (en)

[origin: WO9704045A1] Emissions of pollutants from diesel engines are reduced by a combination of mechanical devices and fuel additives. In one series of embodiments, diesel emissions of NO_x and particulates are reduced, simultaneously with gaseous hydrocarbons and carbon monoxide, by the combined use of exhaust gas recirculation or engine timing modification, with a particulate trap and a platinum group metal catalyst composition. In another embodiment, a multi-metal catalyst composition, comprising a combination of a platinum metal catalyst composition and at least one auxiliary catalyst metal composition, especially cerium or copper, is employed to provide catalyst metal to the exhaust system including a diesel trap to lower the balance point of the particulate trap (the temperature at which the rate of trap loading equals the rate of regeneration) while also lowering the emissions of carbon monoxide and unburned hydrocarbons. Data for platinum, copper and cerium catalysts establishes effective amounts. Tests also show selective maintenance of low oxidation of SO₂ to SO₃.

IPC 1-7

C10L 1/30

IPC 8 full level

C10L 1/10 (2006.01); **C10L 1/14** (2006.01); **C10L 10/00** (2006.01); **C10L 10/02** (2006.01); **C10L 10/06** (2006.01); **F01N 3/029** (2006.01); **F02D 41/00** (2006.01); **C10L 1/12** (2006.01); **C10L 1/16** (2006.01); **C10L 1/18** (2006.01); **C10L 1/22** (2006.01); **C10L 1/24** (2006.01); **C10L 1/26** (2006.01); **C10L 1/30** (2006.01); **F01N 3/035** (2006.01)

CPC (source: EP)

C10L 1/10 (2013.01); **C10L 1/14** (2013.01); **C10L 10/02** (2013.01); **C10L 10/06** (2013.01); **F01N 3/029** (2013.01); **C10L 1/1208** (2013.01); **C10L 1/1225** (2013.01); **C10L 1/1233** (2013.01); **C10L 1/1241** (2013.01); **C10L 1/125** (2013.01); **C10L 1/1266** (2013.01); **C10L 1/1275** (2013.01); **C10L 1/1608** (2013.01); **C10L 1/1616** (2013.01); **C10L 1/1691** (2013.01); **C10L 1/1814** (2013.01); **C10L 1/1824** (2013.01); **C10L 1/1828** (2013.01); **C10L 1/1852** (2013.01); **C10L 1/1855** (2013.01); **C10L 1/1857** (2013.01); **C10L 1/188** (2013.01); **C10L 1/1881** (2013.01); **C10L 1/1883** (2013.01); **C10L 1/1886** (2013.01); **C10L 1/1888** (2013.01); **C10L 1/191** (2013.01); **C10L 1/198** (2013.01); **C10L 1/1985** (2013.01); **C10L 1/2222** (2013.01); **C10L 1/2225** (2013.01); **C10L 1/224** (2013.01); **C10L 1/23** (2013.01); **C10L 1/231** (2013.01); **C10L 1/232** (2013.01); **C10L 1/238** (2013.01); **C10L 1/2437** (2013.01); **C10L 1/26** (2013.01); **C10L 1/2608** (2013.01); **C10L 1/301** (2013.01); **C10L 1/305** (2013.01); **F01N 3/023** (2013.01); **F01N 3/035** (2013.01); **F01N 2430/04** (2013.01); **F02D 41/0065** (2013.01); **F05C 2201/0427** (2013.01)

Citation (search report)

- [X] WO 9502655 A1 19950126 - PLATINUM PLUS INC [US]
- [X] WO 9411467 A1 19940526 - PLATINUM PLUS INC [US]
- [X] WO 9312207 A1 19930624 - PLATINUM PLUS INC [US]
- [X] WO 9312206 A1 19930624 - PLATINUM PLUS INC [US]
- See references of WO 9704045A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9704045 A1 19970206; AU 6548996 A 19970218; CA 2227141 A1 19970206; EP 0854903 A1 19980729; EP 0854903 A4 19990421; MX 9800511 A 19980531

DOCDB simple family (application)

US 9611908 W 19960718; AU 6548996 A 19960718; CA 2227141 A 19960718; EP 96925366 A 19960718; MX 9800511 A 19960718