

02/09/03
2003047974

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



162162

(43) International Publication Date
12 September 2002 (12.09.2002)

PCT

(10) International Publication Number
WO 02/070632 A3

(51) International Patent Classification⁷: B01J 23/00,
23/40, 23/42, 23/58, 23/60, 23/72, 23/56, 23/44, 23/70,
23/74, 23/02, 23/06, 23/04, 23/48, 23/50, 23/16, 23/18,
23/20, 8/02, 8/00, 8/08, 23/90, 35/02, C01B 21/00, 23/00,
25/00, 31/00, 33/00, 35/00, C01G 28/00, 30/00

(21) International Application Number: PCT/US02/06578

(22) International Filing Date: 2 March 2002 (02.03.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/273,283 2 March 2001 (02.03.2001) US
60/355,773 9 February 2002 (09.02.2002) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN,
YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
18 December 2003

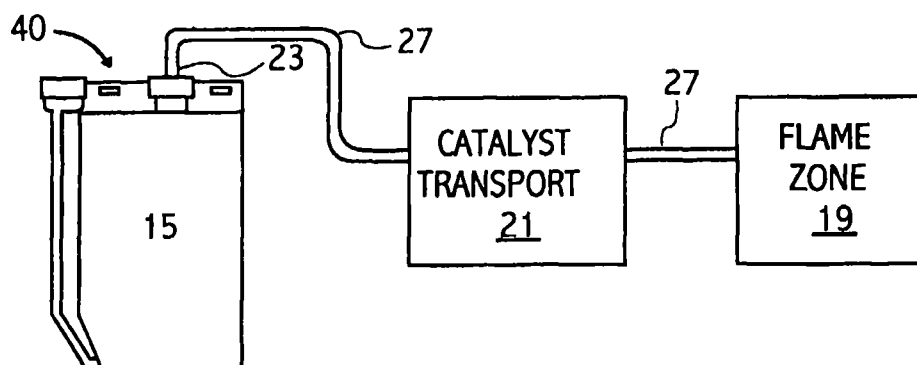
(15) Information about Correction:

Previous Correction:

see PCT Gazette No. 46/2002 of 14 November 2002, Sec-
tion II

[Continued on next page]

(54) Title: CATALYST COMPOSITION AND METHOD FOR OXIDIZING MIXTURES



(57) Abstract: A catalyst composition and method for oxidizing fuels is disclosed. The catalyst composition comprises at least one compound having one of a group (III), group (IIA) or Lanthanide element such as, for example, Aluminum, Magnesium or Cesium, and at least one compound having at least one element selected from group (IA), group (IVA), group (VI), group (VII), group (VIII), group (IB), group (IIB), and combinations thereof, such as, for example platinum, rhodium and rhenium and rhenium. A method for oxidizing an fuel, the method comprising providing a fuel and a catalyst mixture; transporting the fuel and the catalyst to the flame zone separately; mixing the fuel and the catalyst; and oxidizing the fuel. The method and catalyst mixture may be used for oxidation of any hydrocarbon based fuel. Improved results from the use of the group (III), group (IIA) or Lanthanide group element include increased power, reduced harmful emissions, and smoother oxidation process.

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ACTION

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