

Title (en)

ENHANCED SLAG FORMATION FOR COPPER-CONTAINING GAS GENERANTS

Title (de)

VERBESSERTE SCHLACKEFORMIERUNG FÜR KUPFERHALTIGE GASGENERATOREN

Title (fr)

AUGMENTATION DE LA FORMATION DE MÂCHEFER POUR GÉNÉRATEURS DE GAZ CONTENANT DU CUIVRE

Publication

EP 2970036 B1 20180926 (EN)

Application

EP 14774422 A 20140305

Priority

- US 201313799559 A 20130313
- US 2014020750 W 20140305

Abstract (en)

[origin: US2014261927A1] Gas generants comprising copper are provided that have improved slagging ability. In certain aspects, the gas generants include a fuel, an oxidizer comprising basic copper nitrate, and a large particle size endothermic slag-forming component, such as aluminum hydroxide (Al(OH)₃). The gas generants may be cool burning, e.g., having a maximum flame temperature at combustion (T_c) about 1,900K (1,627° C.). The disclosure also provides methods of enhancing slag formation for a gas generant composition that comprises copper. Such methods enhance slag formation during combustion of the gas generant composition by at least 50%.

IPC 8 full level

C06B 23/04 (2006.01); **C06B 29/02** (2006.01); **C06B 31/00** (2006.01); **C06D 5/06** (2006.01)

CPC (source: EP US)

C06B 23/00 (2013.01 - US); **C06B 23/001** (2013.01 - EP US); **C06B 23/04** (2013.01 - EP US); **C06D 5/06** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 2014261927 A1 20140918; CN 105008310 A 20151028; CN 105008310 B 20170825; EP 2970036 A1 20160120; EP 2970036 A4 20161116; EP 2970036 B1 20180926; JP 2016514084 A 20160519; JP 6261713 B2 20180117; US 2020207681 A1 20200702; WO 2014158891 A1 20141002

DOCDB simple family (application)

US 201313799559 A 20130313; CN 201480012821 A 20140305; EP 14774422 A 20140305; JP 2016500663 A 20140305; US 2014020750 W 20140305; US 201916725744 A 20191223