

Title (en)
NITROUS OXIDE FUEL BLEND MONOPROPELLANTS

Title (de)
MONOPROPELLANTEN AUS EINER DISTICKSTOFFMONOXID-BRENNSTOFFMISCHUNG

Title (fr)
MONERGOLS À OXYDE D'AZOTE MÉLANGÉ À UN COMBUSTIBLE

Publication
EP 2209876 A4 20140108 (EN)

Application
EP 08848086 A 20081110

Priority
• US 2008083039 W 20081110
• US 98699107 P 20071109

Abstract (en)
[origin: WO2009062183A1] Compositions and methods herein provide monopropellants comprising nitrous oxide mixed with organic fuels in particular proportions creating stable, storable, monopropellants which demonstrate high ISP performance. Due to physical properties of the nitrous molecule, fuel/nitrous blends demonstrate high degrees of miscibility as well as excellent chemical stability. While the monopropellants are particularly well suited for use as propulsion propellants, they also lend themselves well to power generation in demanding situations where some specific cycle creates useable work and for providing gas pressure and/or heat for inflating deployable materials.

IPC 8 full level
C10L 1/23 (2006.01)

CPC (source: EP US)
C06B 47/04 (2013.01 - EP US); **C06D 5/08** (2013.01 - EP US); **C10L 3/02** (2013.01 - EP US)

Citation (search report)
• [XY] WO 0151433 A1 20010719 - KELLY SPACE & TECHNOLOGY INC [US], et al
• [XY] US 5466313 A 19951114 - BREDE UWE [DE], et al
• [XY] WO 03035436 A1 20030501 - AUTOLIV ASP INC [US]
• [Y] US 5931495 A 19990803 - RINK KARL K [US], et al
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• [A] EP 0313176 A2 19890426 - UNION CARBIDE CORP [US]
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• See references of WO 2009062183A1

Designated contracting state (EPC)
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DOCDB simple family (application)
US 2008083039 W 20081110; AU 2008323666 A 20081110; CN 200880115398 A 20081110; EP 08848086 A 20081110; JP 2010533326 A 20081110; US 26826608 A 20081110