

Title (en)
Detonative cleaning apparatus and method

Title (de)
Vorrichtung und Verfahren zur Reinigung durch Detonation

Title (fr)
Appareil et procédé de nettoyage à détonation

Publication
EP 1533050 A1 20050525 (EN)

Application
EP 04257185 A 20041119

Priority

- US 71873003 A 20031120
- US 71885503 A 20031120

Abstract (en)
Methods and apparatus are provided for cleaning a surface within a vessel (20). A fuel/oxidizer charge is provided within a combustion conduit (26). An initial deflagration commenced in a first portion of the charge produces a final detonation at least in another portion of the charge to expel a shockwave from the conduit (26) which impinges upon the surface. The deflagration-to-detonation transition may be encouraged by mechanical enhancements and/or by making the first charge portion more detonable than the second. An initiator (106) is positioned to initiate a reaction of the fuel and oxidizer to produce the shock wave within the conduit for generating the shock wave. A source of purge gas (98) is positioned to introduce the purge gas to the conduit (26) to drive reaction products of the fuel and oxidizer downstream. <IMAGE>

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IPC 8 full level
B08B 7/00 (2006.01); B08B 9/08 (2006.01); F27D 25/00 (2010.01); F28G 7/00 (2006.01); F28G 13/00 (2006.01); F28G 15/00 (2006.01); F28G 15/02 (2006.01)

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B08B 7/0007 (2013.01); B08B 9/08 (2013.01); F27D 25/006 (2013.01); F28G 7/00 (2013.01); F28G 7/005 (2013.01); F28G 15/00 (2013.01); F28G 15/02 (2013.01)

Citation (search report)

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