

Title (en)

Non-self-deflagrating fuel compositions for high regression rate hybrid rocket motor application.

Title (de)

Nicht Auto-deflagrierende Treibstoffzusammensetzungen zur Anwendung in hoch Rückgangverhältnis hybrid Raketenmotor.

Title (fr)

Compositions de propergol non auto-déflaquant pour utilisation dans un moteur de fusée hybride à tour de régression élevée.

Publication

EP 0520104 A1 19921230 (EN)

Application

EP 91305823 A 19910627

Priority

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Abstract (en)

Hybrid rocket motor fuel grain compositions with high regression rates (0.05 to 0.15 ips) are obtained in which conventional oxidizers are used at relatively low oxidizer mass fluxes. The compositions include an energetic polymer, preferably a polymer of glycidyl azide in a matrix of inert polymer such as polybutadiene. A preferred composition comprises glycidyl azide polymer (24%), hydroxy terminated polybutadiene (56%) and metallic Al (20%). The composition is cured with an isocyanate.

IPC 1-7

C06B 45/10

IPC 8 full level

C06B 45/10 (2006.01)

CPC (source: EP)

C06B 45/105 (2013.01)

Citation (search report)

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- [A] US 4263071 A 19810421 - BAIN LELAND S, et al
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- [A] CHEMICAL ABSTRACTS, vol. 112, no. 20, 14 May 1990, Columbus, Ohio, US; abstract no. 182445K, MISHRA, I.B.; KIEFT, L.V.: 'polyethylene glycol-poly(2-methyl-4-vinyl tetrazole) polymer blend' page 187 ;

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