

Title (en)

HYPERGOLIC DUAL FUEL SYSTEM FOR ROCKET ENGINES

Title (de)

HYPERGOLES ZWEISTOFFSYSTEM FÜR RAKETENTRIEBWERKE

Title (fr)

SYSTÈME HYPERGOLIQUE À DEUX SUBSTANCES POUR MOTEURS-FUSÉES

Publication

**EP 3766859 B1 20210929 (DE)**

Application

**EP 20183064 A 20200630**

Priority

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Abstract (en)

[origin: US2021017097A1] The present invention relates to a hypergolic two-component system for rocket engines, including a fuel and an oxidising agent provided in a manner separated from one another and can be reacted in a rocket engine by bringing them into contact with one another. The fuel is an ionic liquid comprising a thiocyanate anion and one or more cations. The cation or cations are selected from one or more imidazolium ions of the general formula I, triazolium ions of the general formula II or III, and/or tetrazolium ions of the general formula IV, where R1 is a C1- to C6-alkyl radical or a C2- to C6-alkenyl radical, where R2 is hydrogen or a C1- to C6-alkyl radical or a C2- to C6-alkenyl radical, and where X1, X2 and X3 are each independently hydrogen, a C1- to C6-alkyl radical or a C2- to C6-alkenyl radical, and the oxidising agent comprises hydrogen peroxide.

IPC 8 full level

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CPC (source: EP US)

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