Title (en)

Electro-pyrotechnic initiator having a thin layer ignition bridge and low energy requirement

Title (de)

Elektropyrotechnischer Zünder mit Dünnschichtzündbrücke und niedrigem Energiebedarf

Title (fr)

Initiateur électro-pyrotechnique à pont en couche mince et à très basse énergie de fonctionnement

Publication

EP 1160533 B1 20041020 (FR)

Application

EP 01401108 A 20010427

Priority

FR 0006926 A 20000530

Abstract (en)

[origin: EP1160533A1] The two electrodes of the initiator device are interconnected by two conductive metal layers in the surface of an insulator, with a resistor heating element between the two layers. An electropyrotechnic device comprises : (i) a container with a brittle wall and sealed by a body mass of height h which has an upper plane surface at the interior of the container and is electrically insulating ; (ii) two electrodes in the form of a fork which traverse the solid body ; and (iii) an electric circuit comprising thin layer deposits on a non-conductive support fixed to the upper face. The circuit is connected to the electrodes and comprises a thin layer resistive heating element, and is covered by a pyrotechnic initiator composition. The support has a thermal conductivity less than 20 mW/cm. degrees C. The resistive heating element has a thickness less than 1 x 10<-6> m. The pyrotechnic composition consists of a binder and a primary explosive with a particle size between 1 x 10<-6> and 30 x 10<-6>.

IPC 1-7

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IPC 8 full level

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CPC (source: EP KR US)

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Cited by

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