

Title (en)

THIN LAYER IGNITER ELEMENT FOR ACTIVE PYROTECHNIC MATERIALS AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

DÜNNSCHICHTANZÜNDELEMENT FÜR PYROTECHNISCHE WIRKMASSEN UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

ELEMENT D'ALLUMAGE A COUCHE MINCE POUR MATIERES ACTIVES PYROTECHNIQUES ET SON PROCEDE DE FABRICATION

Publication

**EP 0914587 B1 20021016 (DE)**

Application

**EP 98929356 A 19980522**

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Abstract (en)

[origin: WO9854535A1] The thin layer igniter elements used to ignite active pyrotechnic materials generally have high ignition voltages or involve very high amounts of initialization energy. Said elements are mainly based on a purely thermal coupling of a hot material and a volatile material forming a bridging material for ignition. By using hafnium hydride and/or titanium hydride as a bridging material for ignition (2) and by employing a method of production which is compatible with semi-conductors, large quantities of ignition elements requiring low-range initialization voltages can be produced in an extremely simple manner. A hafnium hydride and/or titanium hydride decomposition process is activated at a low heating temperature, resulting in the release of reactive hydrogen and the formation of plasma. The inventive igniter elements provide simplified control circuits for passenger protection devices such as airbags in motor vehicles.

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