

Title (en)

Injection valve for an internal combustion engine and method for producing an injection valve

Title (de)

Einspritzventil für eine Brennkraftmaschine sowie Verfahren zur Herstellung eines Einspritzventils

Title (fr)

Soupape d'injection pour un moteur à combustion interne ainsi que procédé de fabrication d'une soupape d'injection

Publication

**EP 2826985 B1 20170426 (DE)**

Application

**EP 14174075 A 20140626**

Priority

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Abstract (en)

[origin: CN104295424A] The invention relates to a fuel injector (1) for an internal combustion engine. The fuel injector (1) is comprised of an injector body (5) with an injector tip (6). The injector tip (6) is used for the injection of fuel into the combustion chamber (4) of the internal combustion engine. For this reason, the injector tip (6) is designed so as to be at least partially extended into the combustion chamber (4). If the injector tip (6) is designed to be flush with the surface of the combustion chamber (4), the injector tip (6) is arranged so that it directly faces toward the combustion chamber (4). Furthermore, the injector tip (6) is at least partially coated with a first oxide layer (9). According to the invention, a catalytic second oxide coating (10) composed of cerium oxide (CeO<sub>2</sub>), praseodymium oxide (PrO<sub>2</sub>), zirconium oxide (ZrO<sub>2</sub>), or any bi-component combination thereof is applied on top of the first oxide coating (9). The present invention also discloses a method of producing a fuel injector (1) which is at least partially coated with a first oxide coating (9) and a second oxide coating (10) applied over the first oxide coating (9), where the second oxide coating (10) is composed of at least one or more compounds from the group comprising cerium oxide (CeO<sub>2</sub>), praseodymium oxide (PrO<sub>2</sub>), or zirconium oxide (ZrO<sub>2</sub>) and is applied as a washcoat.

IPC 8 full level

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