

Title (en)

Spark plug for use in an internal-combustion engine

Title (de)

Zündkerze für einen Verbrennungsmotor

Title (fr)

Bougie d'allumage à utiliser dans un moteur à combustion interne

Publication

**EP 1837964 B1 20140212 (EN)**

Application

**EP 07251139 A 20070319**

Priority

JP 2006075806 A 20060320

Abstract (en)

[origin: EP1837964A2] A spark plug 100 is comprised of a metal shell 1, an insulator 2, a center electrode 3 and a ground electrode 4. A rear-end face of the ground electrode 4 is welded to a front-end face of the metal shell 1, and a bent portion 5 located at the intermediated position in the longitudinal direction is bent toward the center of the spark plug 100. The ground electrode 4 assumes a circular-shape with a diameter of 2mm or less whereby an inflow of an air-fuel mixture is not disturbed even when the air-fuel mixture directly flows into a back face of the ground electrode 4. The ground electrode 4 is comprised of an outer layer 4A made of a nickel alloy and an inner layer 4B made of pure copper with an excellent thermal conductivity, in which a ratio of a cross-sectional area of the inner layer 4B to the entire cross-sectional area of the ground electrode 4 is 10% or more to 35% or less. Thus, the spark plug 100 which is excellent in heat sinking ability and can prevent a spring back phenomenon due to a difference in a coefficient of thermal expansion.

IPC 8 full level

**H01T 13/32** (2006.01); **H01T 13/39** (2006.01)

CPC (source: EP)

**H01T 13/32** (2013.01); **H01T 13/39** (2013.01)

Cited by

DE102018125456A1; US2010206256A1; US9016253B2

Designated contracting state (EPC)

DE FR

DOCDB simple family (publication)

**EP 1837964 A2 20070926; EP 1837964 A3 20130116; EP 1837964 B1 20140212; CN 101043125 A 20070926; CN 101043125 B 20120523**

DOCDB simple family (application)

**EP 07251139 A 20070319; CN 200710088227 A 20070320**