

Title (en)

Electrode for plasma arc torch, and torch using such an electrode.

Title (de)

Elektrode für Plasmalichtbogenbrenner und entsprechender Brenner.

Title (fr)

Electrode pour torche de travail à l'arc plasma, et torche correspondante.

Publication

EP 0410875 A1 19910130 (FR)

Application

EP 90402132 A 19900725

Priority

FR 8910224 A 19890728

Abstract (en)

[origin: JPH03151169A] PURPOSE: To improve reliability of ignition by providing so that the support end arranged around an insert has at least a portion made of an electroconductive material axially projecting with respect to the insert. CONSTITUTION: At the end of using an oxidizing plasma-forming gas such as air or oxygen for a period, the center part of an insert 14 is formed into a crater 15 the periphery of which is covered with an annular projection 16 made of zirconium oxide or hafnium oxide. The existence of a hole 11 prevents the annular projection 16 from protruding beyond the end face 9 of the support 10, so that ignition by short-circuit can be continued in a sure way.

Abstract (fr)

Le support (10) de l'électrode (2) présente à son extrémité un lamage (11) dans le fond duquel est monté l'insert émissif (16) en zirconium ou en hafnium. Application aux torches de coupage plasma à allumage par court-circuit.

IPC 1-7

H05H 1/34

IPC 8 full level

B23K 10/00 (2006.01); **H05H 1/34** (2006.01)

CPC (source: EP KR US)

H05H 1/34 (2013.01 - EP US); **H05H 1/3442** (2021.05 - EP KR); **H05H 1/3489** (2021.05 - EP KR); **H05H 1/3442** (2021.05 - US); **H05H 1/3489** (2021.05 - US)

Citation (search report)

- [YD] EP 0144267 A2 19850612 - SOUDURE AUTOGENE FRANCAISE [FR], et al
- [A] US 4059743 A 19771122 - ESIBIAN EDUARD MIGRANOVICH, et al
- [Y] WELDING INTERNATIONAL. vol. 2, no. 10, 1988, ABINGTON GB pages 870 - 873; D A DUDKO: "effect of methods of producing thermochemical electrodes on their service life in welding plasma torches"
- [Y] WELDING INTERNATIONAL. vol. 1, no. 9, 1987, ABINGTON GB pages 816 - 820; S I POLOSKOV: "EVALUATING THE LIFE OF NON-CONSUMABLE ELECTRODES IN THE ARC WELDING OF ALUMINIUM ALLOYS"
- [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 300 (M-848)(3648) 11 juillet 1989, & JP-A-01 91972 (MATSUSHITA) 11 avril 1989,

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