

Title (en)

Direct current arc plasma torch, specially conceived for the obtention of a chemical body by decomposition of a plasma gas

Title (de)

Gleichspannungslichtbogenplasmabrenner, insbesondere bestimmt zur Erzeugung eines chemischen Stoffes durch Zersetzung eines Plasmagases

Title (fr)

Torche à plasma d'arc à courant continu, particulièrement destinée à l'obtention d'un corps chimique par décomposition d'un gaz plasmagène

Publication

EP 0743811 A1 19961120 (FR)

Application

EP 96400770 A 19960410

Priority

FR 9505972 A 19950519

Abstract (en)

The DC arc plasma torch has first and second electrodes (1,2) formed as coaxial tubes on either side of a chamber (3) into which the gas to be decomposed is injected. The electrodes are open at the ends facing the injection chamber. Electrical connections allow application of direct current to the electrodes to establish an arc discharge between them. One of the electrodes is open at its outer end (6) to allow flow of the plasma (13) generated by the arc beyond the end of the electrode. Provision is made to inject air through holes (7,8) round the periphery of the outer end of the electrode to form a fluid layer separating the plasma from the wall of the electrode.

Abstract (fr)

Torche à plasma d'arc à courant continu, notamment destinée à l'obtention d'un corps chimique à partir d'un gaz plasmagène (P) comportant ledit corps. Selon l'invention : l'électrode (2A) est en communication avec la chambre d'injection (3) du gaz plasmagène par l'intermédiaire d'une pièce tubulaire (2B) traversée par l'arc (10) et constituant la chambre de réaction dans laquelle ledit gaz plasmagène (P) donne naissance au plasma (13) sous l'action de l'arc électrique (10) ; et il est prévu des moyens (7, 8) permettant de former une barrière fluide (14) entre l'électrode (2A) et le plasma (13). <IMAGE>

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H05H 1/34

IPC 8 full level

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CPC (source: EP US)

H05H 1/34 (2013.01 - EP US); **H05H 1/341** (2013.01 - EP US); **H05H 1/3431** (2021.05 - EP); **H05H 1/3468** (2021.05 - EP); **H05H 1/32** (2013.01 - EP US); **H05H 1/3431** (2021.05 - US); **H05H 1/3468** (2021.05 - US); **H05H 1/40** (2013.01 - EP US)

Citation (search report)

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EP 0743811 A1 19961120; **EP 0743811 B1 19981104**; CA 2174571 A1 19961120; DE 69600904 D1 19981210; DE 69600904 T2 19990401; FR 2734445 A1 19961122; FR 2734445 B1 19970718; JP H08339893 A 19961224; US 5688417 A 19971118; ZA 962967 B 19961022

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