

Title (en)

METHOD FOR THE PRODUCTION OF ELECTRODE ELEMENT FOR A PLASMA TORCH

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES ELEKTRODENELEMENTES FÜR PLASMABRENNER

Title (fr)

PROCEDE DE FABRICATION D'UN ELEMENT ELECTRODE POUR CHALUMEAU A PLASMA

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Application

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Abstract (en)

[origin: WO03075621A2] The invention relates to an electrode element for plasma torches and a method for producing such electrode elements. The aim of the invention is to reduce production costs while increasing the life span, wherefore the inventive electrode element for plasma torches is provided with at least one core which forms the actual electrode that is connected as a cathode, and which is made of a metal or metal alloy having a smaller work function. Said core is surrounded by a shell part that is made of a metal or metal alloy having a greater work function and thermal conductivity. A graded border layer which is formed by mixed crystals of the two metals or metal alloys, or an intermediate layer between the core surface and the shell part, which is made of another metal or metal alloy having a greater work function than the core material, is provided between the core surface and the shell part. Said border layers of the intermediate layer form a graded transition.

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