

Title (en)

METHOD AND DEVICE FOR IGNITING AN ARC

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ZÜNDEN EINES LICHTBOGENS

Title (fr)

PROCÉDÉ ET DISPOSITIF D'AMORÇAGE D'UN ARC ÉLECTRIQUE

Publication

EP 2263428 A2 20101222 (DE)

Application

EP 09731134 A 20090407

Priority

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Abstract (en)

[origin: WO2009124542A2] The invention relates to a method and a device for igniting an arc between an anode and a cathode of a plasma source at ambient atmosphere conditions, said cathode being arranged at a distance to the anode and the plasma source being suitable to produce a substrate surface modification. The aim of the invention is to reduce the effort required for igniting an arc and to make the ignition process safer. The invention is characterized in that a barrier discharge is ignited by means of a supplied gas by means of two electrodes that are arranged in parallel to the longitudinal axis between the anode and the cathode, the electrodes being connected to a high voltage generator and being supplied with high-frequency alternating current voltage during ignition. When a direct current voltage is applied to the anode and the cathode, the charge carriers present due to the barrier discharge between the anode and the cathode allow ignition of an arc.

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