

Title (en)

DEVICE AND METHOD FOR GENERATING A PLASMA BY MEANS OF A TRAVELING WAVE RESONATOR

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ERZEUGUNG EINES PLASMAS MITTELS EINES WANDERWELLENRESONATORS

Title (fr)

DISPOSITIF ET PROCÉDÉ POUR GÉNÉRER UN PLASMA AU MOYEN D'UN RÉSONATEUR À ONDES PROGRESSIVES

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Application

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Abstract (en)

[origin: WO2011061283A1] The invention relates to a device for generating a plasma, comprising an alternating voltage source (10), a traveling wave resonator (18), and coupling means (16), which are designed to couple the alternating voltage generated by the alternating voltage source (10) into the traveling wave resonator (18) such that electromagnetic traveling waves are created, wherein the traveling wave resonator (18) is designed to excessively increase the electric field strength of the electromagnetic traveling waves such that a plasma is ignited in a gas. The invention further relates to a method for generating a plasma, comprising the following steps: generating an alternating voltage; generating electromagnetic traveling waves in a traveling wave resonator (18) by coupling the alternating voltage into the traveling wave resonator (18); and excessively increasing the electric field strength of the electromagnetic traveling waves in the traveling wave resonator (18) so as to ignite a plasma in a gas. The invention further relates to the use of said device and/or of said method for plasma treatment.

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