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(71) Applicant: **EDWARDS LIMITED** [GB/GB]; Innovation Drive, Burgess Hill, Sussex RH15 9TW (GB).

(72) Inventors: **MAGNI, Simone**; Edwards Limited, Kenn Business Park, Kenn Road, Clevedon Somerset BS21 6TH (GB). **CHOI, Yun Soo**; Edwards Korea Limited, 96, 3 gongdan 1-ro, Seobuk-Gu, Cheonan-si, Cheonan-si, Chungcheongnam-do 331-200 (KR). **KO, Chan Kyoo**; Edwards Korea Limited, 96, 3 gongdan 1-ro, Seobuk-Gu, Cheonan-si, Cheonan-si, Chungcheongnam-do 331-200 (KR).

(74) Agent: **NORTON, Ian**; Edwards Limited, Innovation Drive, Burgess Hill Sussex RH15 9TW (GB).

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(54) Title: A NOZZLE FOR CONVEYING A PLASMA STREAM FOR PLASMA ABATEMENT AND RELATED METHOD

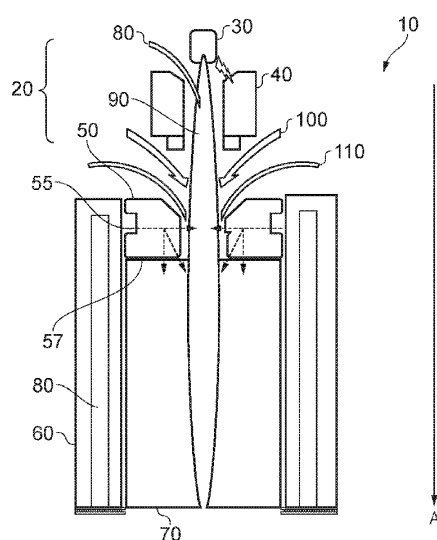


FIG. 1

(57) Abstract: A nozzle for conveying a plasma stream and a method are disclosed. The nozzle is for conveying a plasma stream from a plasma generator to a reaction chamber, the nozzle comprises: a conduit extending between an inlet arranged to receive the plasma stream and an outlet arranged to fluidly couple with the reaction chamber, the plasma stream being conveyed by the conduit between the inlet and the outlet in an axial direction, wherein the nozzle is thermally-conductive and is arranged to receive water for heating by the nozzle, the nozzle having at least one aperture therein, the aperture being arranged to deliver the heated water in the axial direction for mixing with the plasma stream. In this way, water is introduced into the plasma stream within the nozzle, which generates hydrogen and oxygen radicals that help improve the destruction rate efficiency of the abatement apparatus. This provides for a particularly safe and convenient way to improve the destruction rate efficiency since no combustible materials are required to be supplied to the nozzle to generate those radicals.

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