Device for exciting a gas by a surface wave plasma and gas treatment apparatus incorporating such a device.

ABSTRACT

This device for exciting a gas, of the surfaguide type, comprises a hollow structure (24) forming a waveguide, this hollow structure being intended to be connected to a microwave generator and provided with a passage (38) through which a hollow dielectric tube (40) passes, through which tube the gas to be excited flows, and with a region (30) for concentrating the waves produced by the generator onto the dielectric tube. It furthermore includes at least one electromagnetic screening sleeve (42, 44) made of a conductive material, fastened to the said structure (24) and extending along the extension of the said passage (38) so as to surround the said hollow tube.

Fig. 4