

**Process for purifying a gas and apparatus for the
implementation of such a process.**

ABSTRACT

This process for purifying a gas includes the steps consisting in:

- making the said gas flow through a hollow dielectric tube (16);

- creating an electric field in the said gas by means of a travelling electromagnetic wave which travels in the said dielectric tube (16) and is suitable for creating, in the gas, an atmospheric-pressure plasma (18) which is not in local thermodynamic equilibrium for the purpose of dissociating the impurities in the gas in order to form reactive compounds; and

- making the said reactive compounds formed react with a corresponding reactive element (22, 24) for the purpose of eliminating them from the gas to be purified.

Fig. 1