



## PATENT ABSTRACTS OF JAPAN

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**H01S 3/095**(21) Application number: **10020403**(22) Date of filing: **17.01.98**(71) Applicant: **KAWASAKI HEAVY IND LTD**(72) Inventor: **TSUJI HIROSHI**  
**WANI IKUO**(54) **GAS-LIQUID REACTION DEVICE**

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(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a gas-liquid reaction device by which moisture content in product gas is reduced as low as possible and to provide a gas-liquid reaction device capable of holding down moisture content in product gas in jet type gas-liquid reaction in which chlorine gas is allowed to react with an alkaline hydrogen peroxide solution in order to generate electron excitation state oxygen used for an iodine laser generator in particular.

**SOLUTION:** In the gas-liquid reaction device, a solution is spouted out from a plurality of nozzles 3 to form jets and these jets are allowed to react with crossing gas flow. A regulation factor represented by physical properties of the solution, diameter of the nozzle and jet flow speed is regulated on the basis of physical properties of the solution and the diameter of the nozzle. Thereby, the shape of jets in the part, in which at least gas flow is strong, is made to a smooth cylindrical shape and mist accompanied by gas flow is decreased.

