

MODELING OF GAS DISCHARGE IN WATER VAPOR

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S u m m a r y

The results of our study of a gas-discharge plasma in water vapor are reported. The generation rate of excited OH* ($A^2\Sigma^+$) radicals in the water vapor discharge turns out significantly higher than the formation rate of emitting states of hydrogen and oxygen atoms. According to our estimations, the optimum value of E/N -ratio between the electric field strength E and the concentration of gas particles N for the excitation of radical OH* bands equals $(300 \div 400) \times 10^{-21} \text{ V} \cdot \text{m}^2$.