

Abstract

This work deals with the study of dissociation of iodine molecule for Chemical and Discharge Oxygen-Iodine Laser. Chemical way of HI dissociation and discharge way of dissociation of CH₃I and CF₃I molecules is examined. Main diagnostics method is absorption spectroscopy. Part of the work is also the modeling of system of chemical reactions. Last part of this work is dealing with the study of plasma generated by the radiofrequency generator in the hollow cathode plasma jet system using argon or mixture of argon with iodine. Diagnostic method used is Langmuir probe.