Time-resolved FTIR absorption and emission spectroscopy of plasmas produced in low-frequency-modulated N2O hollow cathode discharges

Low frequency modulated N_2O hollow cathode discharges have been studied using time-resolved FTIR absorption and emission spectroscopy. Some experimental absorption data corresponding to slow transients of the discharge, as well as the temporal behavior of the different bands observed in the emission spectra, are presented here. A general exposition of the chemical reactions included in the kinetic model that explain with a satisfactory agreement that experimental stationary and time-resolved data is also given.