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Title: Nitrogen Molecular Spectra of Air-Fluorescence Emulator
using a LN2 Cooled CCD

Abstract (less than 10 lines):

In this work nitrogen molecular spectra in UV region of air-fluorescence emulator are presented. These spectra have taken using a LN2 cooled CCD sensor installed in a high resolution UV spectrograph designed to be used in electron beam accelerators. Operating at such a low temperatures the overall noise of the detector is minimized achieving the required sensitivity to determine the air-fluorescence yield in such type of experiment. In this work some preliminary dark noise study results of the CCD sensor are presented. Installing the detector in the spectrograph we mostly concentrated in the FNS 0-0 transition line of molecular nitrogen at 391.44 nm whose spectral structure was analyzed and the results are presented and are compared with that obtained with conventional CCD thermoelectrically cooled sensor.