

MONITORING OF IONIZING RADIATION USING GEIGER AND NaI (TL) CRYSTAL SCINTILLATOR FOR ENVIRONMENTAL STUDY

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ABSTRACT

In August and September 2019, the intensity of environmental ionizing radiation was monitored every minute at ITA campus in São José dos Campos, Brazil. A Russian and Chinese tube Geiger and a Talio-activated sodium iodide scintillating crystal was used in this monitoring. The month of August was very dry and cold while in early September, the rains appeared in the region. These measurements show the interference of the presence of rainfall on the variation of intensity in the local ionizing radiation. This fact observed experimentally using proportional counters and scintillators of low cost and easy operation facilitates research in ITA and other high school institutions in Brazil regarding studies of environmental ionizing radiation.

KEYWORDS: *Geiger Proportional Counters, Crystal Scintillators, Monitoring Environmental Ionizing Radiation*