

The Study of Ultraviolet Radiation from High Efficiency Fluorescence Lamps

Bamrung Somswasdi and Narong Piskumthong

Department of Physics, Faculty of Science, Khon Kaen University, Khon Kaen 40002
THAILAND.

A study of ultraviolet radiations (UVR) from high-efficiency fluorescence lamps has been done imcomparison to ordinary fluorecence lamps. It was found that, all of the spectra have shown clearly the structure of line spectrum from Mercury vapour gas. The relative quantity of UVR emitted from high-efficiency lamps was found to be significantly differed from those of the ordinary fluorecence lamps. In general, the quantity of UVR from high-efficiency lamps has shown to have a lower value of the index of effective irradiance harmful effect over the whole range of UVR. However, for the UV-A region which has more effects on eyes, the high-efficiency fluorecence lamps emit more UV-A with higher index of effective irradiance harmful effect. There is one exception for a type of compact fluorecence lamps from one particular manufacturer that shown all lower values of the index of effective irradiance harmful effects, in all case.