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STUDY ON GLOBAL DIMMING GENERATED BY ATMOSPHERIC AEROSOLS

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Abstract

The global dimming means a gradual reduction on the earth's surface of global direct irradiance. The global dimming blocks the sunlight that would otherwise cause evaporation, thereby interacting with the global warming. In order to determine some characteristics confirming the global dimming were conducted a series of measurements of temperature and luminosity in Iasi. The purpose of the study was to link the urban pollution to the decrease in the solar luminosity during the time of a month. The results confirm, based on deductions, the effect of atmospheric particles on the amount of solar radiation that reaches the Earth's surface. As so, a conclusion was made, based on the observation that during a month time, the luminosity at ground level follows a specific pattern that repeat itself every week.

Key words: atmospheric particles, climatic changes, global dimming, monitoring, luminosity

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