BEHAVIOR OF ENVIRONMENTAL POLLUTANTS IN THE FIELD OF ELECTROMAGNETIC RADIATION: NUMERICAL CALCULATIONS

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Abstract

One of the familiar pollutants is the black cloud. The black cloud is a term written to describe the arrival of an enormous cloud of gas that enters the solar system and threatens to destroy most of the life on earth by blocking the sun's radiation, [B. Neta, Partial Differential Equations, Lecture Notes, Department of Mathematics, Navol Post Graduate School Monterey, California 93943, 2003]. Close to the burning area, black clouds appear indicating strong absorption. While, further down wind they may look white, indicating weaker or no absorption. In previous study, it can be pointed out that the electromagnetic waves are effective factors in the existence of the black cloud, [Z. Elsady, F. Hassan and A. Hathout, On the black cloud and the electromagnetic waves propagation, Far East J. Appl. Math. 30(2) (2008), 221-233]. The detection of the cloud was described using mathematical equations. In this paper, the effect of the ionosphere on the concentration of pollutants is investigated. Also, the behavior of the environmental pollutants in the occurrence of electric and magnetic fields is calculated and discussed.