

Dependence of Appearance Frequency of Auroral Absorption on Its Intensity

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The appearance frequency of auroral absorption depending on the threshold intensity has been studied by riometer observation data at Tixie station from 1986 to 1997. Experimental data are approximated by a relation $\lg N = a - k A$. The annual average values of absorption appearance frequency are classified into two groups on the basis of a portion of intense absorptions. The portion of $A > 3$ dB intensity absorption in one group is 3.3 %, in other group it is 6.8 % from all $A > 0.25$ dB absorptions. The corresponding values of the parameter “k” are 0.527 and 0.419. The parameter “k” depends on the time of day: $k = 0.650$ in the evening hours (1600-2100 LT) and $k = 0.463$ in the night hours (0000-0004 LT). The dependence of “k” on the precipitation electron spectrum is discussed.