

Variation of the effective recombination coefficient during auroral electron precipitation

Zhanna V. Dashkevich¹, Vladimir E. Ivanov¹

¹ Polar Geophysical Institute, Apatity, Russia

zhanna@pgia.ru

The effect of the precipitating auroral electrons on the effective recombination coefficient has been studied. It is shown that in the altitude region above 140 km the effective recombination coefficient demonstrates a dependence both on the energy flux and on average energy of auroral electrons. This allows us to explain the observed altitude profiles of the electron density obtained from incoherent scatter radar data.