

Thunderstorm-induced energetic radiation observed at the summit of Mt. Fuji during July - August of 2013

TAKAHASHI, Shusaku^{1*} ; KAMOGAWA, Masashi¹ ; TORII, Tatsuo² ; SAITO, Shogen¹ ; SHOJI, Tomomi¹ ; SUZUKI, Yuko¹ ; SUZUKI, Tomoyuki¹

¹Dpt. of Phys., Tokyo Gakugei Univ., ²Japan Atomic Energy Agency

We investigate the condition of the energetic radiation caused by the thunderstorm electric field. From the events of the energetic radiation observed at the summit of Mt. Fuji during the summer, the following features were found: Negatively charged region located in -10°C altitude (approximately 7 km) inside the thunderstorm attributed to the radiation. The observed radiation was enhanced about 10 %. Our Monte Carlo simulation showed that the energetic radiation was observed when the negatively charged region with the -4 nC/m^3 and 1 km radius appeared at approximately 7 km altitude.

Keywords: Energetic radiation, Thunderstorm, Mt. Fuji