

# Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

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PEM006-10

Room:101

Time:May 25 14:50-15:05

## CCM simulation of the effect of solar proton events on middle atmospheric ozone: A case study of July 14-16, 2000 event

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Influence of large solar proton events (SPEs) is investigated with the chemistry-climate model of Meteorological Research Institute by imposing ion pair production rate profile in polar caps. An ion pair is assumed to produce 1.25 N atoms, which in turn create 0.55 N(4S) and 0.75 NO. In the case of July 14-16, 2000 SPE, it is found that ozone destruction occurs substantially in the upper stratosphere and lower mesosphere with a maximum of about 10 % at the stratopause in the northern polar cap.

Keywords: solar proton events, middle atmospheric ozone, chemistry-climate model, simulation