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Effect of solar protons on the middle atmosphere composition during GLE 13 December, 2006

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Abstract content

The effect of energetic solar protons on the middle atmosphere (20-80 km) chemical composition during SPE 13 December, 2006 has been studied. The solar proton spectra were obtained from the neutron monitors, balloons and spacecraft data. One-dimensional time-dependent model (Fadel et al., 2006, ASR, 38, p.1881-1886) has been used to calculate the production and loss of minor atmospheric components during the GLE. Derived depletions of ozone content is in good agreement with experimental data obtained by the Microwave Limb Sounder (MLS) instrument on the AURA spacecraft.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 1 (SH), pages 773-776

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