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## Effects of the January 2005 GLE/SEP Events on Minor Atmospheric Components\*

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### Abstract content

It is known from long ago that solar energetic charged particles, driven by the geomagnetic field, are able to produce ionization at different altitudes of the terrestrial atmosphere. Moreover, they can initiate catalytic cycles for the ozone depletion, involving NO<sub>x</sub> (N+NO+NO<sub>2</sub>) and HO<sub>x</sub> (H, OH, HO<sub>2</sub>) components. Nevertheless, only in recent years it was possible to compare chemical models involving atmospheric minor components with satellite data. In this work we looked for effects of the GLE/SEP events occurred during January 2005 on the OH and HNO<sub>3</sub> species of the atmosphere. Results show that there is a response on the minor atmospheric components, which is different in the winter and summer terrestrial hemispheres.

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**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 277-280

**Primary author(s) :** Dr. STORINI, MARISA (INAF/IFSI-Roma)

**Co-author(s) :** Dr. DAMIANI, Alessandro (INAF/IFSI)

**Presenter(s) :** Dr. STORINI, MARISA (INAF/IFSI-Roma)

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