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Interactive Comment

Interactive comment on "Chemistry of sprite discharges through ion-neutral reactions" *by* Y. Hiraki et al.

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First of all I think that a qualitative description of sprites with states how frequent they occur, how were they discovered, where there occurs, how long they last, etc, will be very useful.

Secondly, this paper should probably include a reference to Arnone et al (GRL 2008) (Goggle MIPAS sprite)

The phrase "Because of no strong gas heating ..." at p. 2313 line:11 it is not understandable.

One suggestion is that the reactions would be clearer if they were separated from the text (for instance in p2314 line 6, etc)



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Interactive Discussion

On p.2314 line:10 it is said that, the purposes are to find the way to realx of minor species, an explanation that [NO] is low at night making easy to see the perturbations will be useful.

The statement on p.2324 line:20 about the nighttime impact because the daytime of NO is around the same order as that produced by the streamer. should be more at the beginning of the paper.

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Interactive Comment

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Interactive Discussion

Discussion Paper



Interactive comment on Atmos. Chem. Phys. Discuss., 8, 2311, 2008.