

Interactive comment on “Evolution of stratospheric ozone during winter 2002/2003 as observed by a ground-based millimetre wave radiometer at Kiruna, Sweden” by U. Raffalski et al.

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This manuscript represents an interesting study of the behaviour of ozone during the winter 2002/2003, measured by remote sounding of the atmospheric emission in the microwave spectral region. Measurements were made in the 195 to 225 GHz region.

This manuscript provides some interesting data on the variability of O₃ as a function of altitude during the winter and spring months. The measurements were performed

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throughout the winter with only a minor small gap. This data yields a detailed picture of the development of ozone. Mini holes, ozone depletion and warming events were all identified. The O₃ loss was analyzed with the help of the N₂O from ODIN and Temperature fields from ECWMF data.

In addition these data will also be useful for the validation of the satellite instruments measuring O₃ in the stratosphere and mesosphere on board ENVISAT: SCIAMACHY, MIPAS and GOMOS.

The minor comments of the referees should be taken into account in the final version of the manuscript.

I recommend the manuscript for publication in ACP.

John P. Burrows 21st of March 2005.

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