

Interactive comment on “Characterisation of the photolytic HONO-source in the atmosphere simulation chamber SAPHIR” by F. Rohrer et al.

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In the absence of any comments to date I would like to point to the following, perhaps to stimulate comments: 1) the paper presents new data relating to HONO production in chambers, which is a long unsolved problem and which may be relevant to Atmospheric HONO. 2) the measurements are carefully done and prove the photochemical HONO source, as well a weaker thermal source. 3) the mechanism remains elusive despite a closely argued discussion of the various possibilities. There are some weaknesses in the paper which I believe need to be addressed. It is stated that the empirical expression can describe HONO formation in SAPHIRE with good precision. However this is not consistent with the observation that the rate of HONO production exhibited a

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sudden change during the series of measurements from an unknown cause. It is hinted (p 15-16) that the empirical equation derived may have some general application. The discussion does not convince since the process is fairly clearly a heterogeneous one and no surface/volume parameter is included. There is also the nagging problem that the production rate contains no dependence on oxidised nitrogen [NO_x] - where does the Nitrogen come from?

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 7881, 2004.

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