

***Interactive comment on* “Technical note:
Determination of binary gas phase diffusion
coefficients of unstable and adsorbing
atmospheric trace gases at low temperature –
Arrested Flow and Twin Tube method” by Stefan
Langenberg et al.**

Stefan Langenberg et al.

langenberg@uni-bonn.de

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We thank Mingjin Tang for commenting our discussion paper. His remarks are marked like *this*. All references, cited herein refer to the discussion paper. To the questions we answer as follows:

1) As diffusion coefficients depend on temperature, it took me a while to know the

corresponding temperature for D_0 presented in Tables 2-3. Although it is clear in the text, it may be helpful to explain D_0 in the table captions.

This will be done in the revised manuscript.

2) It will be useful to provide an outlook to tell the readers which trace gases will be (are being) investigated using the two nice techniques?

The experiments were performed 1992-1997. Encouraged by the reviews of Tang et al. (2014a, 2015), we decided to publish our data. Today, the experimental setups do not exist anymore. Besides of the diffusion coefficients reported in our paper, diffusion coefficients of O_2 , CCl_4 and CCl_2F_2 in N_2 were investigated using the AF method. With CH_4 as internal standard, ethene; ethane; propene in air and propane; *n*-butane; isoprene in N_2 were measured simultaneously using the TT method.

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Discussion paper

