

***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.***

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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*

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*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<sub>2</sub>, CCl<sub>4</sub> and CCl<sub>2</sub>F<sub>2</sub> in N<sub>2</sub> were investigated using the AF method. With CH<sub>4</sub> as internal standard, ethene; ethane; propene in air and propane; *n*-butane; isoprene in N<sub>2</sub> were measured simultaneously using the TT method.

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