

## ***Interactive comment on “Impact of the eruption of Mt. Pinatubo on the chemical composition of the stratosphere” by Markus Kilian et al.***

**Markus Kilian et al.**

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Dear Valentina,

Thank you very much for your remarks.

We apologize for the wrong citation, which we will remove from this place in the revised manuscript. Moreover, our sentence "For the first time, the effects of volcanic heating and heterogeneous chemistry on the chemical composition, caused by the volcanic aerosol, are separated" is in this form indeed incorrect as you mention correctly. The formulation we have chosen is misleading and needs to be precised. Nevertheless, we performed nudged simulations with which the chemical effect is separated from the heating effect for the first time. Our simulations are different from those of Telford et

C1

al. (2009), who indeed also performed nudged simulations, but their chemical effect includes the volcanic heating and thus corresponds to our simulation with the combined effect of volcanic heating and heterogeneous chemistry. We will clarify this in the revised manuscript.

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C2