REPLY TO REFEREE #3'S COMMENTS

We greatly appreciate the referee's comments on our manuscript entitled **"Tropospheric photooxidation of CF_3CH_2CHO and $CF_3(CH_2)_2CHO$ initiated by Cl atoms and OH radicals"**, by M. Antiñolo, E. Jiménez, A. Notario, E. Martínez, and J. Albaladejo.

1) Difference in FTIR and Flow measurements in the OH kinetics

The difference observed in the fluoroaldehyde concentration measured by FTIR spectroscopy and from flow rate measurements could be associated with a possible heterogeneous process of those species in the storage bulb or tubbing lines.

2) Reduction in reactivity for Cl and OH reactions

Referee #3 pointed out that the reduction in reactivity for Cl reactions is higher than for the corresponding OH reactions and can be associated with differences in the reaction mechanism. For the OH reactions, the formation of a hydrogen-bonded complex between OH and the carbonyl group lead to a lower activation energy than that for the Cl reactions, where a direct hydrogen abstraction occurs. This comment will be included in the discussion of the revised.

***3)** Impact of fluoroaldehyde chemistry on air quality*

We agree with Referee#3 that the atmospheric abundance of fluorinated alcohols and, therefore, fluorinated aldehydes is currently low. However, the possible widespread use of fluorinated alcohols as subsitutes of HFCs will inevitably lead to an increase in fluoroaldehyde concentrations, since they are the major oxidation products. Thus, further studies on the degradation products of their homogeneous oxidation and UV photodissociation will be needed in order to evaluate the environmental impact of these fluoroaldehydes, especially if they are a source of fluorinated acids in the troposphere. So, the statements on Page 24798-24799 will be changed, highlighting the impact of the chemistry of fluorinated aldehydes in terms of carboxylic acid formation.

4) Grammatical/ Typographical corrections

All grammatical and typographical errors found by the reviewer have been corrected and will be included in the revised manuscript.