

## ***Interactive comment on “Processes controlling the seasonal variations of $^{210}\text{Pb}$ and $^7\text{Be}$ at the Mt. Cimone WMO-GAW global station, Italy: A model analysis” by Erika Brattich et al.***

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The authors may consider giving a brief description of what the physical and chemical processes are included in their model for the simulation of radionuclides Pb-210 and Be-7 in both the stratosphere and the troposphere, instead of just referring to the literatures (Page 10, Line 9-14).

Pb-210 and Be-7 were analyzed from the PM10 samples according to a description of the radionuclide measurement (Page 9, Line 5-8). I wonder if the treatment of aerosol processes in the model could affect the simulation of radionuclides. How does the model treat the uptake of radionuclides on particulate matters? Does the uncertainties in the simulation of PM10 affect the simulation results of Pb-210 and, in particular,

Be-7?

The treatment of Be-7 source in the model is also suggested to be described more specifically, e.g., by providing the prescribed concentrations or by giving the production rates at certain altitudes.

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