Interactive comment on “Atmospheric concentrations of carbon dioxide and its isotopic composition in southern Poland: comparison of high-altitude mountain site and a near-by urban environment” by L. Chmura et al.

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Reply to the comments of Referee #2 on Atmospheric concentration of carbon dioxide and its isotopic composition in southern Poland: comparison of high-altitude mountain site and a near-by urban environment; by L. Chmura, K. Rozanski, J.N. Necki, M. Zimnoch, T. Kuc and A. Korus.

We are grateful to Referee #2 for comprehensive and detailed review. In fact, his comments prompted us to redesign the overall structure of the manuscript. We decided to focus only on the issues related to concentration patterns of carbon dioxide in two contrasting environments and leave out entirely the discussion related to isotopic composition of CO2. The reason for that is two-fold: (i) in-depth, quantitative discussion of
both concentration and isotope records would considerably enlarge the overall size of the manuscript, (ii) the work is already in progress on a separate publication where the isotope data available for the two discussed sites will be presented and discussed in a comprehensive way.

Referee #2 is certainly right stating that the present version of the manuscript is largely descriptive, without visible efforts to quantify the observed patterns in both the mixing ratios and the isotopic composition of carbon dioxide. We agree with that statement. However, this descriptive character of the of the manuscript was largely intentional. Our primary goal was to present all data we have at present, which in our view could be interesting for broader audience, and leave aside comprehensive, in-depth interpretation and discussion which would require extension of the manuscript beyond reasonable and financially affordable to us limit. We admit that this strategy was perhaps not the best one. We will consider all specific comments of Referee #2 when preparing new, revised version of the manuscript.

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