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Interactive comment on "Impacts of air pollution and climate on materials in Athens, Greece" *by* J. Christodoulakis et al.

Anonymous Referee #3

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The manuscript presents corrosion and soiling results of materials exposed under real environmental conditions as well as corrosion and soling estimations obtained using dose response functions. Among the materials studied are copper, carbon steel, weathering steel, zinc, modern glass and limestone. The experimental campaign covers the period from 2003 to 2012. An important contribution of this work is the development of new dose response functions for the particular case of Athens, Greece based on the current pollutant situation. Such kind of information is not available in the literature.

I believe that the paper is consistent with the fields of Atmospheric Chemistry and Physics journal. The paper is well structured and follows journal instructions. I recommend the publication of the paper after the proposed minor changes have been made.

Comments

1. The parameter "H" of the equations 6 and 10 are not defined. Add its definition in the given list.

2. In the title of Eq. 4 are given the chemical characteristics of the weathering steel. This information should be erased from this point and added in text where weathering steel is referred. Same info for the rest metal/alloys should be added.

3. Different figures concerning the same material, like for examples 2 and 3 but also others, could be presented as one figure defined (a) and (b).

4. In fig. 16, I would suggest the authors to change the order of the materials in axis x. It would be more useful for the reader the results of each material to be placed side by side in chronological order.

5. In the legends of figures 11-15 add the equations numbers of DRFs.

6. Page 22, caption: "by ICP DRF" instead of "by DRFs".

7. Page 25, caption: "surface recession" instead of "recession"

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2016-196, 2016.