

Interactive comment on “SMOKE for Europe – adaptation, modification and evaluation of a comprehensive emission model for Europe” by J. Bieser et al.

Anonymous Referee #2

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This paper is about an adaptation of the SMOKE modeling system to Europe. It provides a comparison of different emission inventories including one inventory processed using a modified version of SMOKE. The modification to SMOKE that was emphasized in the paper could have been accomplished without modifying the original set of SMOKE programs (although the author's update is probably easier to use in practice) by creating a set of day specific emissions and applying surrogates on a per daily basis. I hope the authors would be willing to submit their updated code(s) to the Community Modeling and Analysis System (CMAS) for future SMOKE releases. Since the MOD-MAT module proposed in the SMOKE system is not substantially new and different, I did not perceive this paper to have a substantial contribution to the modeling science.

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On the other hand, the methods used to compare the emission inventories were quite useful and helpful so the scientific quality is good.

I concur with reviewer number 1 for the various typographical changes suggested.

Interactive comment on Geosci. Model Dev. Discuss., 3, 949, 2010.