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Atmospheric Chemistry and Physics Discussions



# *Interactive comment on* "Technical Note: The new comprehensive atmospheric chemistry module MECCA" *by* R. Sander et al.

**Anonymous Referee #2**

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This short technical note introduces the MECCA atmospheric chemistry module. The module combines quite a few virtues that are of great advantage in atmospheric chemistry modelling, and in addition is completely free to use. I downloaded the electronic supplement and had a look at the documentation. The package appears to be quite useful, although I stopped short of trying to get it to work for me. The virtues listed by the authors – flexibility, modularity, portability, and availablility – indeed come in handy. I think the text is appropriate to alert the community to the existence of the MECCA package, and perhaps other users will start to use it. As for the scientific merits of the package, a detailed investigation of the properties of the solver is beyond the scope of the paper but would certainly be needed in future publications. Two such papers are al-

ready announced by the authors. The two examples of MECCA in use are encouraging but more will be needed. Also perhaps some more explicit discussion of other solvers, some of which are also freely available and use similar approaches to turn chemistry into code, should be in order.

Detailed comment: I found one problem in the supplement listing the chemical mechanism. Reaction G3107, according to Sander et al. (2003), produces $N_2O$ + O not $N_2$ + $O_2$.

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Interactive comment on Atmos. Chem. Phys. Discuss., 4, 7167, 2004.