

## ***Interactive comment on “A novel approach to emission modelling of biogenic volatile organic compounds in Europe: improved seasonality and land-cover” by D. C. Oderbolz et al.***

**Anonymous Referee #2**

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General comments:

This paper addresses the emission modeling of BVOC in Europe taking into account 3 different vegetation inventories as well as 2 aspects of seasonality linked to foliar biomass and enzyme activity. The authors describe in details the procedure used discussing the advantages and limitation of the different vegetation inventories and basic uncertainties on BVOC emission inventories. To model BVOC emission is an important task for air quality investigation because of the well-known high reactivity once they are released into the atmosphere, affecting O<sub>3</sub> and SOA formation. Many efforts have been putted to improve the emission inventories to be used in air quality models since

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it has been already recognized the importance of having as much as reliable data as possible. My major concern is that the approach presented here does not really bring new ideas since the importance of seasonality and land-cover in emission modeling are already recognized, but it can provide further information for emission modeling. Anyway, I think that it could be consider for publication

Technical corrections:

P19940, L23: add also S2 in the sentence “. . .where S3 has higher emissions”

P19940, L25: check the emission values with those reported in the table

P19950, L12: . . .(see Figs S17. . . .

P19952, L7: “ in general the observed concentrations aroun noon are higher than simulated ones.” Cite figure number

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