Interactive comment on “Contribution of fungi to primary biogenic aerosols in the atmosphere: active discharge of spores, carbohydrates, and inorganic ions by Asco- and Basidiomycota” by W. Elbert et al.

Anonymous Referee #2

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This otherwise excellent paper could serve as an overview and open the door to study other specific primary biological aerosol particles. Even if the subject (fungi) seems to be a minor contribution (17 Tg/yr first estimate of global average emission), the literature survey is excellent. However, the way, the estimate is calculated (p. 11330, l. 19) needs a deeper and more supported discussion. Why is a CBL height of 1000 m assumed and not for instance 1800 m, as it is often the case? Can a CBL height of 1000 m be assumed for the global land area? Brett J. Green, Euan R. Tovey, Jason K. Sercombe, Francoise M. Blachere, Donald H. Beezhold, Detlef Schmechel (2006):
Airborne fungal fragments and allergenicity. Medical Mycology 44, 245 - 255 DOI: 10.1080/13693780600776308 have shown, that for each fungal spore one can expect a 300 - 500 fold increase (release) of fragments of such spores. Such material adds to the emission rate of those substances. As a technical recommendation: Add the SD in the graphs as error bars, as usual.

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 11317, 2006.