

## ***Interactive comment on “Brown carbon absorption in the red and near infrared spectral region” by András Hoffer et al.***

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This manuscript presents interesting findings on light absorption by tar balls. The authors present evidence for absorption at long visible and IR wavelengths, however, their claim that this finding is “contrary to the conventional belief” (P.1, L.12) is not accurate. There are at least two studies that have shown this before, Alexander et al. (2008) and Saleh et al. (2014), both cited in the manuscript. The authors cite Saleh et al. (2014) among studies that explicitly assumed that non-BC carbonaceous aerosols do not absorb at wavelengths  $> 700$  nm (P.1, L. 30). This is not true. In fact, Saleh et al. (2014) presented evidence for extremely low volatility organic compounds (ELVOCs) in biomass-burning emissions being highly absorptive in the visible spectrum and near IR. The imaginary parts of the refractive indices reported in Figure 2 of Saleh et al. (2014) are in good agreement with those reported in this study for tar balls. There is a

strong argument to be made that tar balls constitute a fraction of Saleh et al.'s ELVOCs. I believe that a comparison of the findings of this study with those of Saleh et al. and Alexander et al. should be discussed in this paper.

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Discussion paper

