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# *Interactive comment on* "Influence of spectral solar irradiance on the formation of new particles in the continental boundary layer" *by* M. Boy and M. Kulmala

## M. Boy and M. Kulmala

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First we want to thank the referee for his appropriate and detailed comment on chapter 4. We agree complete with his opinion and as also mentioned in the Author comment of the second referee we will change the title of this chapter in a more accurate way: (A potential mechanism explaining the indirect influence of short wavelength irradiance on the formation of SOA). Further in the introduction of this chapter and in the abstract of the paper the explained mechanism should be explained as hypothesis in which way the short wavelength irradiance, the O(1D) production rate and further this OH radical source can contribute to the concentration of temporary products, which after other chemical reactions could lead to the formation of SOA. This is only one out of possible many different mechanisms participating in the formation of new particles in the BL and the reason for presenting it in the paper was to show one way besides any other photochemical reactions or the onset of vertical heat flux how solar irradiance can influence the formation of SOA.

The aim of this chapter was in the presented way misunderstood and will be corrected it in the final version for ACP.

Interactive comment on Atmos. Chem. Phys. Discuss., 2, 1317, 2002.

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