

Interactive comment on “The AOTF-based NO₂ camera” by Emmanuel Dekemper et al.

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Dear Dr Kern,

Thank you for drawing our attention to the paper by Cheng and Chan (2004). We were aware of a later paper by the same authors:

Cheng and Chan (2005). Acousto-optic measurements of tropospheric nitrogen dioxide column density by solar spectroscopy. *Applied Optics*, 44(26), 5536–5543.

The same concept is exploited in both papers (2004 and 2005): use of an AOTF to measure a broadband solar spectrum through the atmosphere, then apply the standard DOAS retrieval method. According to us, this is not a very clever use of an AOTF in remote sensing: a considerable amount of time is spent scanning the spectrum wavelength by wavelength to obtain what can be achieved within a second with a grating-based solution. Moreover, the imaging capability of the AOTF is not exploited whereas it is the key advantage compared to scanning systems.

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We would prefer not to mention these papers because we would have to spend several sentences explaining why it is not such a good example of using AOTF technology in atmospheric remote sensing.

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