

***Interactive comment on* “Evaluation of nitrogen dioxide chemiluminescence monitors in a polluted urban environment” by E. J. Dunlea et al.**

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This paper provides a needed quantification of a known interference with CL-based NO₂ sensors. In the conclusion section, the authors state “It seems unlikely that a simple hardware insertion could be developed to retrofit the currently used CL NO_x monitors to avoid this measurement interference”, and proceed to recommend that “instrument manufacturers should pursue low-cost spectroscopic techniques for measuring NO₂”. While such direct spectroscopic measurements are ideal, it is worth remembering that the cause of the interference is not the chemiluminescence technique itself but rather the non-specific catalytic conversion of most nitrogen oxides (NO₂, alkyl nitrates, etc) to NO in the hot molybdenum converter. Photolysis, on the other hand, is a much more specific method of converting NO₂ to NO. Development of low-

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cost photolytic converters designed to replace the standard molybdenum converter is another option for addressing this wide-spread problem.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 569, 2007.

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