Interactive comment on “Influence of line mixing on the retrievals of atmospheric CO$_2$ from spectra in the 1.6 and 2.1 µm regions” by J.-M. Hartmann et al.

Anonymous Referee #3

Received and published: 8 September 2009

Review of ACPD-9-4873-2009; Influence of line mixing on the retrievals of atmospheric CO$_2$ from spectra in the 1.6 and 2.1 micron regions J.-M. Hartmann, H. Tran, and G. C. Toon.

This manuscript presents analysis on influence of line mixing of CO$_2$ lines on the remote sensing retrieval of atmospheric carbon dioxide. The work focuses on the bands near 1.6 and 2.1 microns, which are regions used by the Orbiting Carbon Observatory (OCO) and the Greenhouse Gases Observatory Satellite (GOSAT) instruments. Because of the required precision of these measurement platforms line mixing of CO$_2$ lines is now an important problem and given the results of this manuscript cannot be
neglected. This is an excellent piece of work. The manuscript is well written, timely, and important for the remote sensing community. I suggest publishing it without modification.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 4873, 2009.