

***Interactive comment on “High precision dual-inlet IRMS measurements of the stable isotopes of CO<sub>2</sub> and the N<sub>2</sub>O/CO<sub>2</sub> ratio from polar ice core samples” by T. K. Bauska et al.***

**Anonymous Referee #1**

Received and published: 18 July 2014

The manuscript describes high precision measurements of d13C-CO<sub>2</sub>, d18O-CO<sub>2</sub> and N<sub>2</sub>O/CO<sub>2</sub> ratio of gases extracted from ice cores. High precision measurements of isotopic ratios of CO<sub>2</sub> in ice core have been proven to be difficult to attain. Bauska et al. show a reproducibility of less than 0.02 per mil and a total uncertainty of 0.04 per mil. The study is an interesting piece of experimental work. The results are well described and significant.

I suggest a number of minor changes reported as comments in the attached pdf file.

Please also note the supplement to this comment:

C1783

---

<http://www.atmos-meas-tech-discuss.net/7/C1783/2014/amtd-7-C1783-2014-supplement.pdf>

---

Interactive comment on Atmos. Meas. Tech. Discuss., 7, 6529, 2014.