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## Stable carbon isotope labelled carbon dioxide as tracer gas for air change rate measurement in a ventilated single zone

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*Keywords:* air change rate; ventilation efficiency; tracer technique; cavity ring-down spectroscopy;  $^{13}\text{C}$ -CO<sub>2</sub>; isotope labelled carbon dioxide

### *Highlights:*

- Simultaneous measurement of  $^{13}\text{CO}_2$  tracer gas and indoor air CO<sub>2</sub> using CRDS
- The  $^{13}\text{CO}_2$  tracer measurement includes correction for background  $^{13}\text{CO}_2$
- Accurate measurement of air change rate in a single zone using 4 ppm  $^{13}\text{CO}_2$  tracer

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