

Comparison of Picarro and Los Gatos analysers for CO and N₂O at Hohenpeissenberg

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Since 2015 greenhouse gas measurements have been performed at the global GAW and ICOS station Hohenpeissenberg in rural Southern Germany. At present, a four channel Picarro (CO₂/CO/CH₄/H₂O - G2401) is used for the standard ICOS observations whilst two Los Gatos Analysers (LGR N₂O/CO/H₂O - 913-0015 (EP)) have been run in parallel for several months providing independent measurements of CO as well as adding the new component N₂O to the measurement program. At Hohenpeissenberg the sample line at three different heights (50m, 93m, 131m) is operated under low pressure (0.5 bar) in order to prevent condensation as no external drying of the sample air is implemented. The data from ambient air as well as from the target and calibration measurements are analysed and intercompared demonstrating the performance of the three instruments under those conditions.