Geophysical Research Abstracts Vol. 16, EGU2014-16210, 2014 EGU General Assembly 2014 © Author(s) 2014. CC Attribution 3.0 License.



Development of CO primary standards

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Carbonmonoxide is is well known as a very important indicator or compounds in atmospheric source appointment. In northhemisphere it exists about 300 nmol/mol and in southernhemisphere ~ 150 nmol/mol. Since CO observation, CO standards have been in difficulty in providing a scale for the measurement because of its unstability. In the work we would like to show brief comparison results between scales with different balance, such as air and nitrogen. Each CO in air as well as in nitrogen was prepared gravimetrically by a way of multiple step of dilution and then analyzed with a method of Gas Chromatography. Their analysis conditions for each different balance wes introduced in detail and discussed. They have shown no significant difference between CO in nitrogen for 2 years, however CO in air a positive variation depending on cylinders contained. Here 1 year stability result of CO/air will be shown and discussed.