

# **180 Years of atmospheric CO<sub>2</sub> Gas Analysis by Chemical Methods, E&E Vol 18/2, 2007**

geschrieben von Ernst-Georg Beck | 2. Februar 2007

ABSTRACT More than 90,000 accurate chemical analyses of CO<sub>2</sub> in air since 1812 are summarised. The historic chemical data reveal that changes in CO<sub>2</sub> track changes in temperature, and therefore climate in contrast to the simple, monotonically increasing CO<sub>2</sub> trend depicted in the post-1990 literature on climate-change. Since 1812, the CO<sub>2</sub> concentration in northern hemispheric air has fluctuated exhibiting three high level maxima around 1825, 1857 and 1942 the latter showing more than 400 ppm. Between 1857 and 1958, the Pettenkofer process was the standard analytical method for determining atmospheric carbon dioxide levels, and usually achieved an accuracy better than 3%. These determinations were made by several scientists of Nobel Prize level distinction. Following Callendar (1938), modern climatologists have generally ignored the historic determinations of CO<sub>2</sub>

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## **Comment on: Keppler et al., Methan emissions from terrestrial plants under aerobic conditions, Nature 439, 187-191 (12 January 2006)**

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In the above cited letter to Nature the authors concluded out of their experiments: "Here we demonstrate using stable carbon isotopes that methane is readily formed in situ in terrestrial plants under oxic conditions by a hitherto unrecognized process." Reading their paper it is easily seen that their conclusion is not convincing because their experimental strategy lacks and fails some simple tests to exclude or include known biogenic sources of methane. At that time common biologic knowledge is: Biogene methanogenesis is performed by archaea, (perhaps some cyanobacteria, fungi and microalgae ) which can be divided into two groups: – acetate-consumers....