



Atmospheric carbon dioxide measurements between 650 to 800 ky BP from the EPICA Dome Concordia ice core

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The period between 650 ky and 800 ky before present (BP) looks similar to the time interval between 420 ky and 650 ky BP in terms of less pronounced but longer lasting interglacials in comparison to the last four glacial-interglacial cycles. The drilling of the EPICA Dome Concordia ice core down to 3260 m allows us to measure the atmospheric carbon dioxide concentration back to about 800 ky. The new measurements will show if the close correlation between deuterium, a proxy for Antarctic temperature, and CO₂ persists also in this time period and therefore fluctuates between about 190 ppmv and 260 ppmv for glacial and interglacial periods, respectively. A first, coarse resolution data set will be shown. Of particular interest is the reliability of CO₂ values in very old and deep ice from Antarctica.