

ABSTRACT
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Variations of Soil PCO₂ in Karst Depressions and Spring Water of the Swabian ALB, Southern Germany

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The aim of this work was to obtain data of soil air CO₂ concentrations at different depths as well as the change of concentration with time in order to understand dissolution of calcium carbonate near the surface as well as residual CO₂ partial pressures in spring water from a karst catchment. Sampling sites were located in karst depressions, in order to obtain larger sampling profiles of several meters in an otherwise thin soil cover. Sampling locations for soil air CO₂ measurements were chosen under agriculturally used fields, grassland and forested areas to allow for the identification of the effects of different types of vegetation on soil CO₂. Measured values at the spring and a balance approach are used to determine a CO₂ balance of the whole catchment area.