



## **Daily isotopic composition of atmospheric water vapor in Bolivia: new insights into climate controls on isotopic composition of Andean precipitation and ice cores**

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Daily atmospheric water vapor has been collected during the wet (October-November 2005) and the dry (March-May 2006) seasons at the base (945m) and at the top (4750m) of the Zongo Valley (Bolivia) as well as daily precipitation. The Zongo Valley, linking the Amazon basin to the Bolivian Altiplano, is located on the northeast side of the Bolivian Cordillera Real, 55 km northwesterly from the Nevado Illimani where a 20, 000-year long ice core was extracted in 1999. It thus offers a unique opportunity to investigate the isotopic composition of precipitation variability after the airmasses recycling over the Amazon basin and before the isotopic depletion of precipitation when airmasses lift up the Andes and precipitate. This will enable us to refine the interpretation of the Illimani isotopic record. We present here both isotopic composition (oxygen 18 and deuterium excess) of precipitation and vapor at the two locations and discussed daily variations relatively to local and remote meteorology, recycling and condensation and convection conditions.