

The characteristic and environmental significance of water isotopes along a traverse route from Zhongshan station to Dome A, East Antarctica

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Water isotope is proved to be a good indicator of climate and environment evolution in Polar Regions, but may have different patterns in different places. Here we present most recent $\delta^{18}\text{O}$ and δD data of surface snow and ice core which is collected from coast Zhongshan Station to inland Dome A, East Antarctica. Effects of different environmental factors on water stable isotope ratios are discussed. Based on multivariate linear regression analysis and correlation analysis, we find that altitude is the major controlling factor of stable isotope ratios in surface snow.