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This paper examined how water infiltration, evaporation, and transpiration affected the isotope distribution in soil profile. They used water isotopes assisted by the water content measurements. They also used water sourcing approach to identify how much water come from different soil depths and precipitation. Stable isotope is very effective for this research. A lot of data is acquired, and the new knowledge is obtained. I suggest some modifications before publication.

The following are my suggestions.

1, To add description of soil and vegetation in the study area;

Response: Done. We have revised it.

The soil parent material is quaternary eolian loess, and the zonal soil mainly is yellow spongy soils, sierozem, which belongs to the typical semiarid loess hilly-gully region. It has soft soil, homogeneous structure, thicker soil layer, good water performance, and the widest distribution. The average thickness is 40~60 m. Clay soil is between 33.12% ~ 42.17%, organic matter content is between 0.37% ~ 1.34%, soil bulk density is 1.17 g/cm^3, wilting moisture content is 7.3%, and the saturated moisture content is 21.9% at the 0 ~ 20 cm. The soil bulk density is 1.09~1.36g cm^{-3}, and the porosity is 50% ~ 55% at the 2 m soil layer. The soil has vertical joint and strong collapsibility, so the soil erosion is easily happened, and the soil erosion modulus is 5000 t/km^2 · a.

The vegetation type belongs to arid grassland vegetation type, with less distribution of natural arbor. The grassland and shrubland ecosystems were the most extensive dominant ecosystems. Woodland area is less; with most being open forest land. The area of the crown density being greater than 0.2 are only Caragana intermedia and *Pinus tabulaeformis*, and species are single. The distribution of natural herbs mainly are Ben's s. grandis, thyme, cold pole, camel peng, with vegetation coverage 10 ~ 20%. Natural coverage is commonly 25% ~ 35% in the sunny slope, 50% ~ 60% in the shade slope. Natural vegetations are mainly compositae Asteraceae, Leguminosae, Gramineae, etc. The vegetation is sparse, and species are relatively poor because of long-term influence by human activities. The artificial forest vegetations mainly are Caragana intermedia, Hippophae rhamnoides, Pinus tabulaeformis, Platycladus orientalis, Stipa bungeana, etc.

2, To add a description of soil water sampling time;

Response: Done. We have revised it.

Soil samples in the unsaturated zone were collected from May 2013 to October 2015. Soil was sampled at 10 cm intervals for the first 40 cm, 20 cm intervals from 40 to 100 cm, 30 cm intervals from 100 to 130 cm. Maximum depths of sampling ranged up to 130 cm (Plant root is rarely found below 100 cm in the study area). At each sampling site, soil moisture (volumetric soil water content) was obtained with time domain reflectometry (TDR) in the field manually at 0-10, 10-20, 20-30, 30-40, 40-60, 60-80, 80-100and 100-130 cm. Soil moisture content was determined by oven drying method simultaneously.

3, Keywords should be hydrogen and oxygen stable isotope;

Response: Done. We have revised it.

4, How many precipitation samples were there to define LMWL? Please add sample number.

Response: Done. 34 precipitation samples were collected from May 2013 to October 2015.

5, To increase the new relevant references.

Response: Done. We have added new relevant references