

Fig.1. Location of the Jiaolai Plain and sites for sampling precipitation

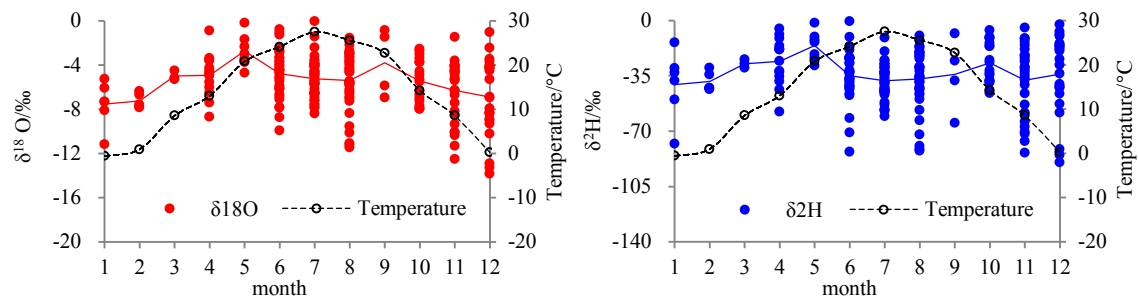


Fig. 2. Contents of $\delta^2\text{H}$ and $\delta^{18}\text{O}$ in precipitation and temperature of the Jiaolai Plain

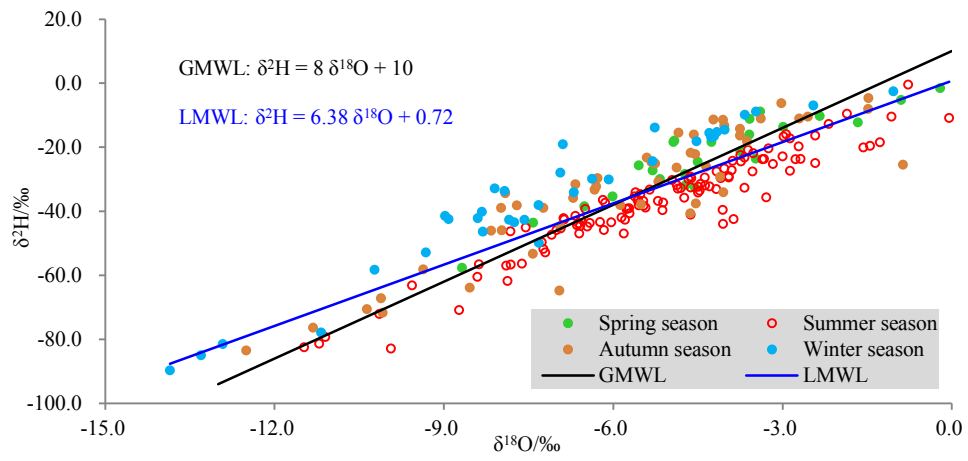


Fig. 3. The relationship between $\delta^2\text{H}$ and $\delta^{18}\text{O}$ of precipitation on the Jiaolai Plain

LMWL, Local Meteoric Water Line; GMWL, Global Meteoric Water Line

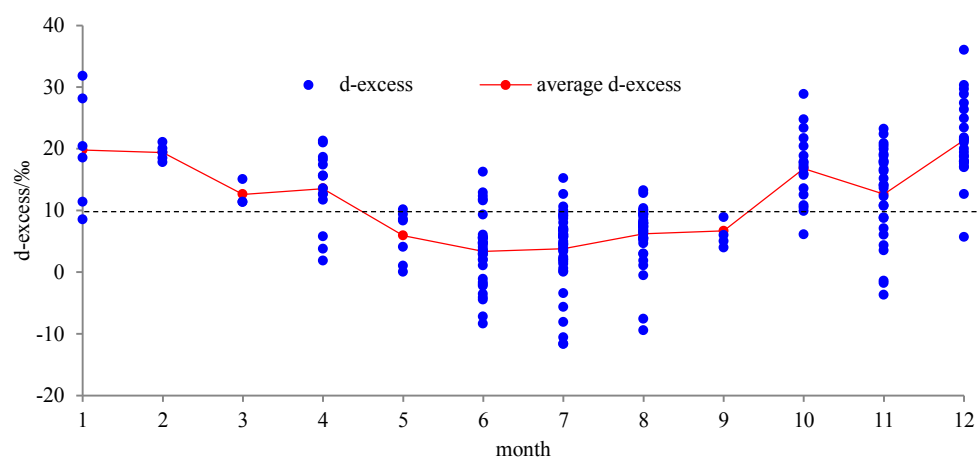


Fig. 4. Values of d-excess in precipitation of the Jiaolai Plain

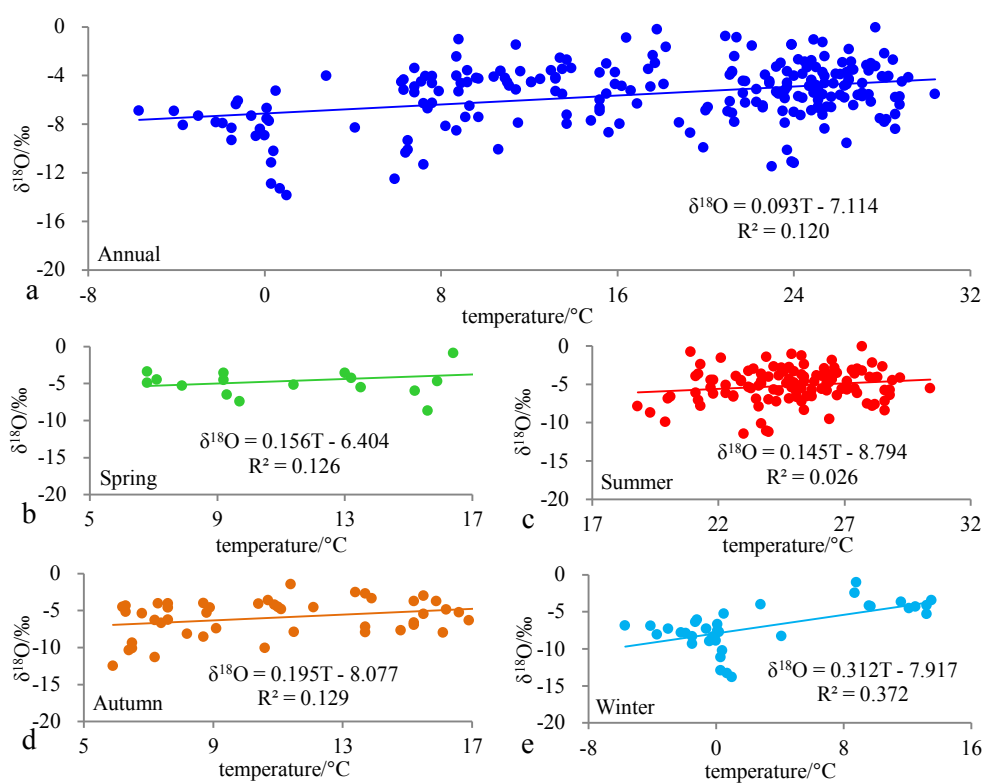


Fig.5. Temperature effect of $\delta^{18}\text{O}$ in precipitation on the Jiaolai Plain

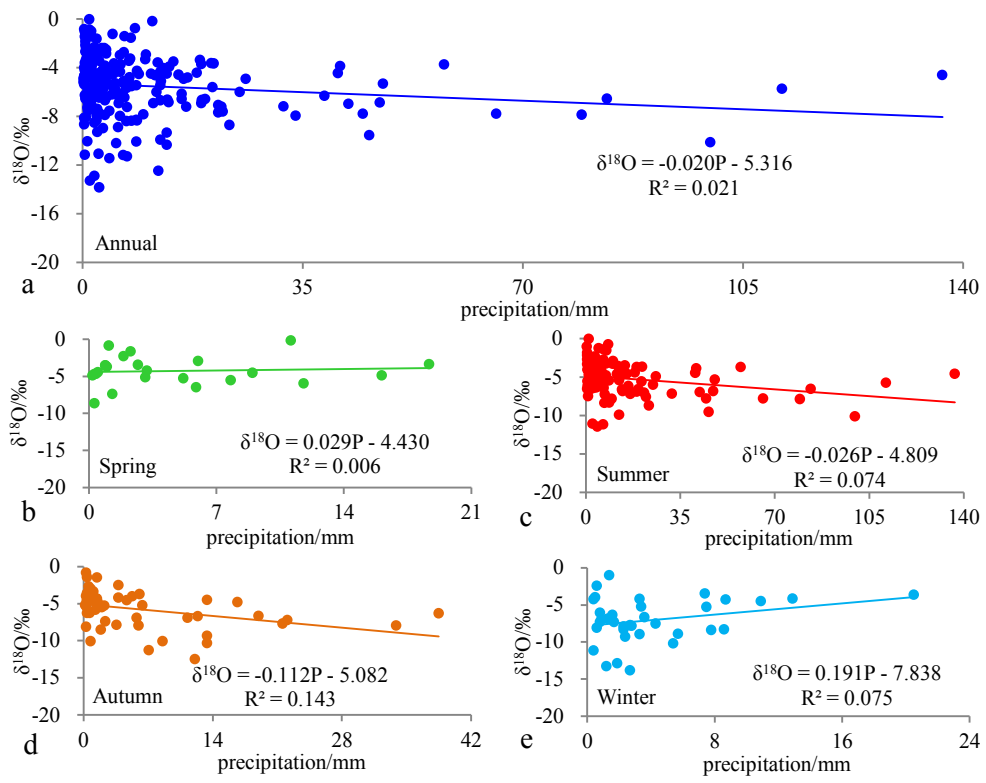


Fig.6. Amount effect of $\delta^{18}\text{O}$ in precipitation on the Jiaolai Plain

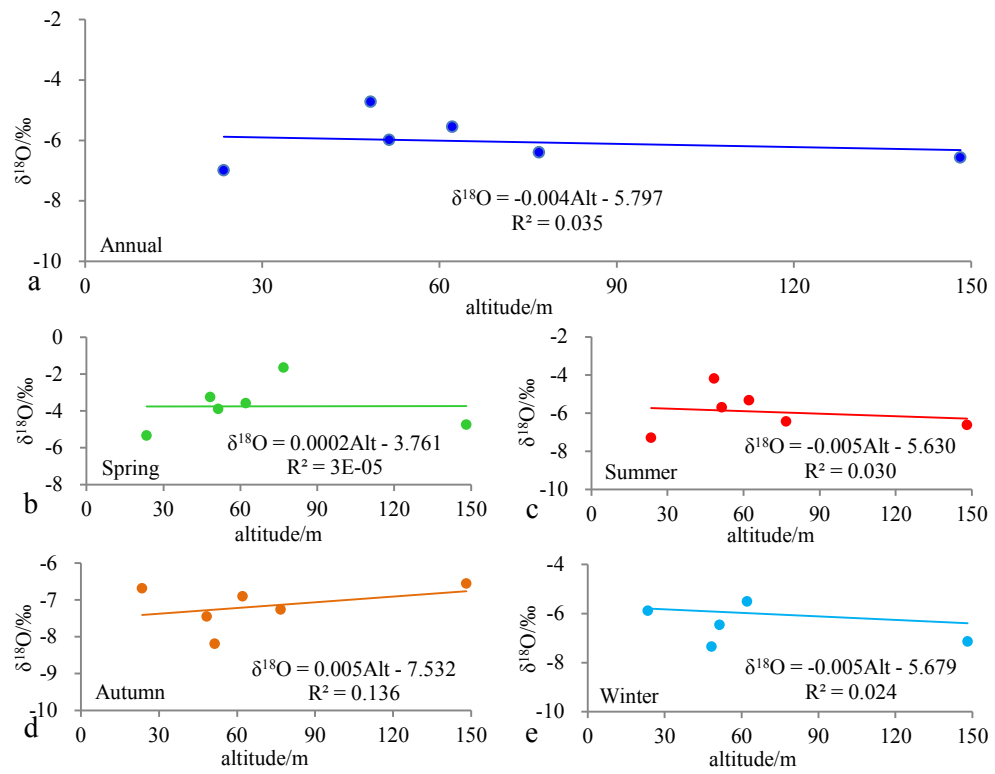
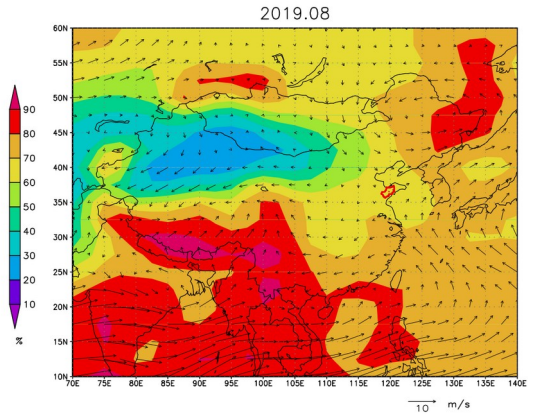
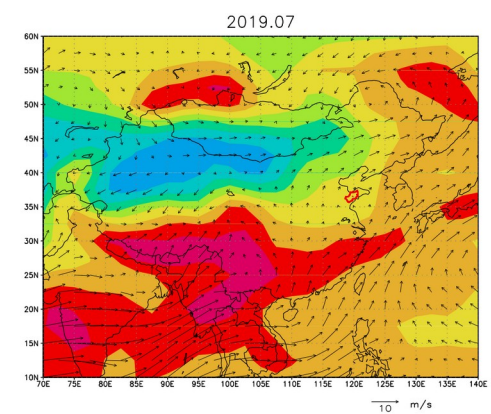
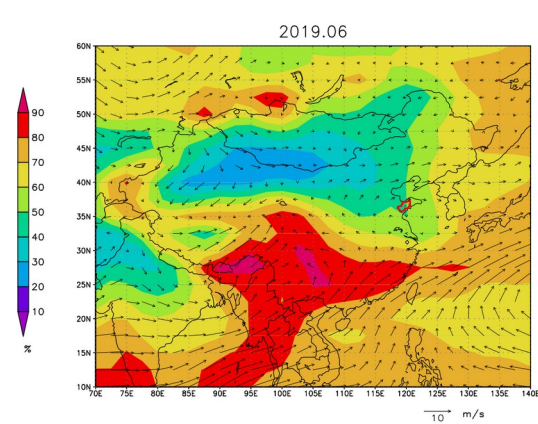
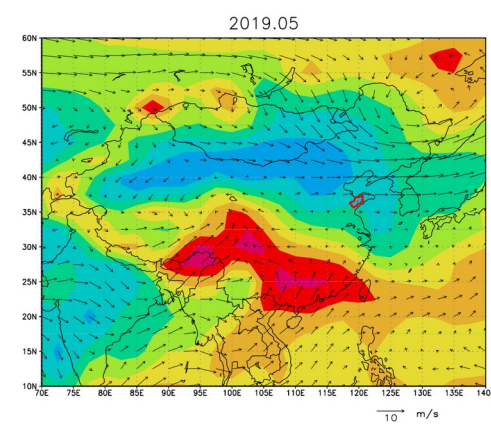
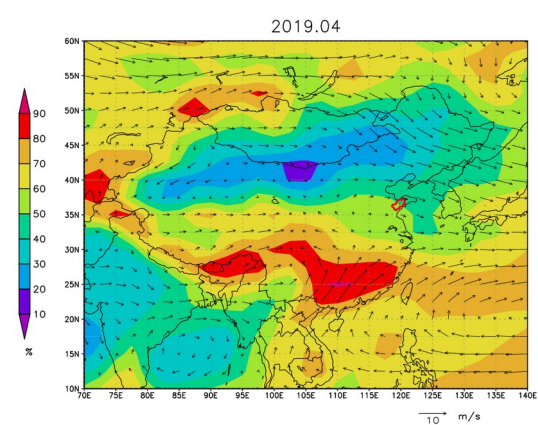
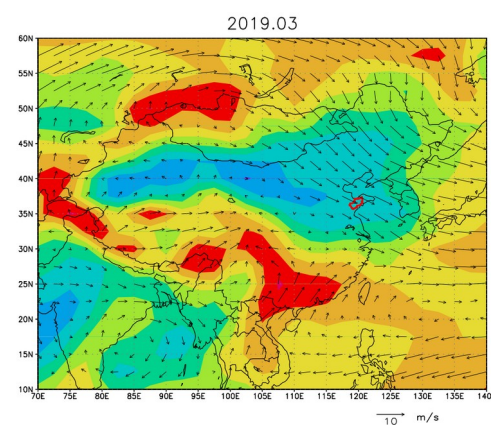
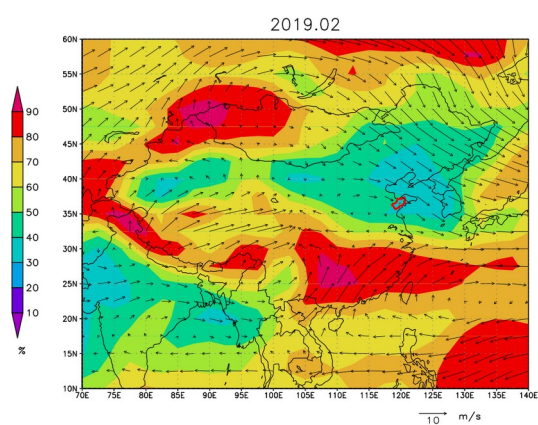
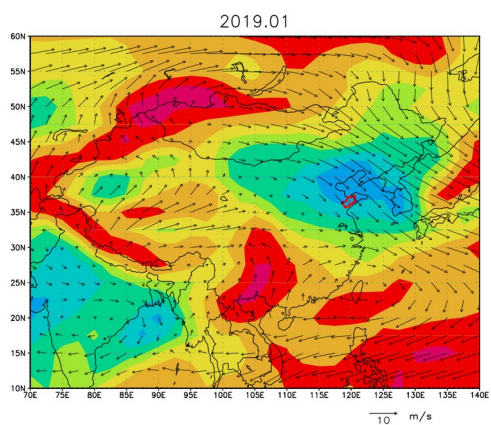


Fig.7. Altitude effect of $\delta^{18}\text{O}$ in precipitation on the Jiaolai Plain



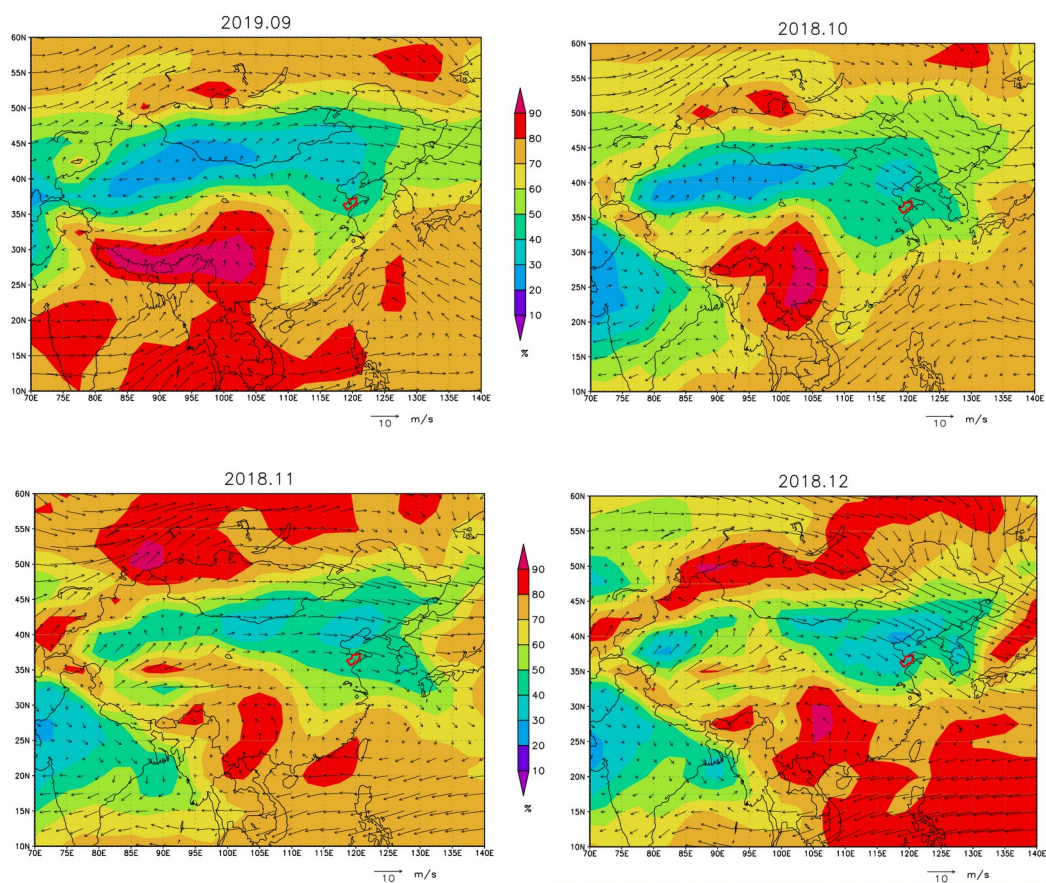
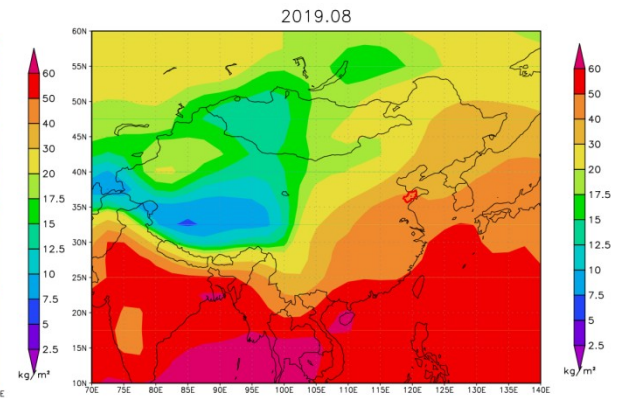
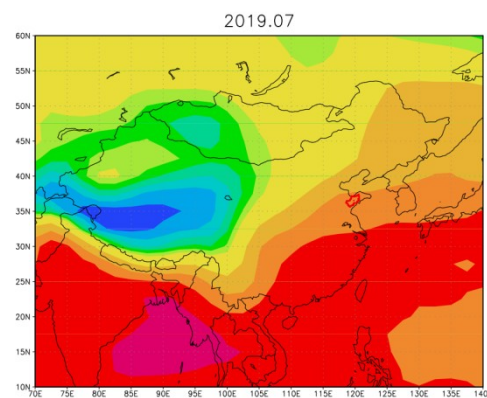
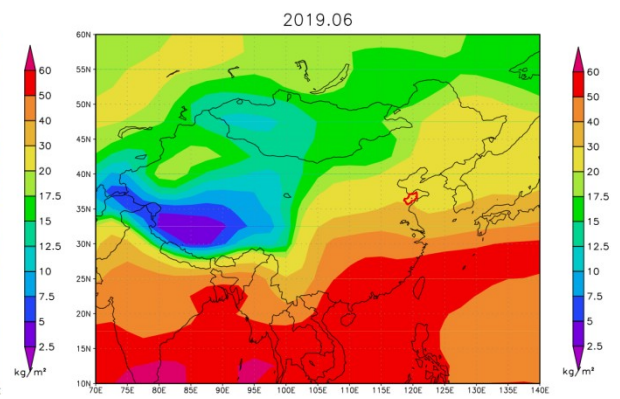
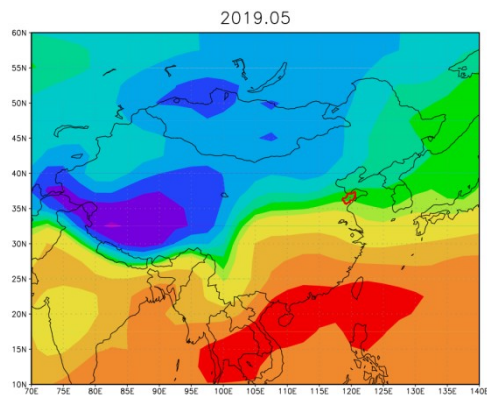
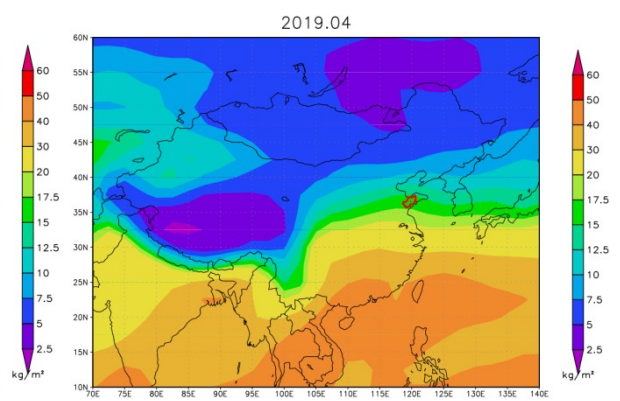
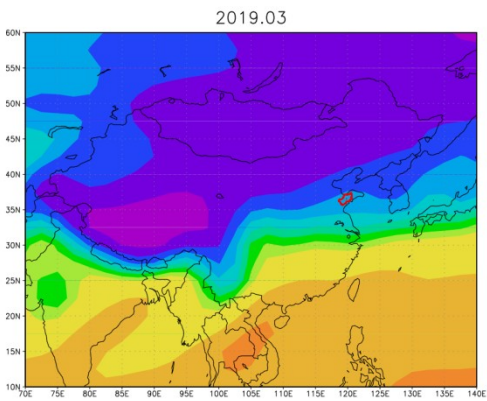
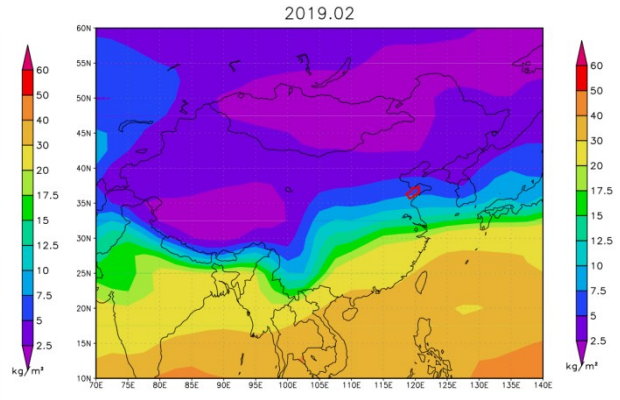
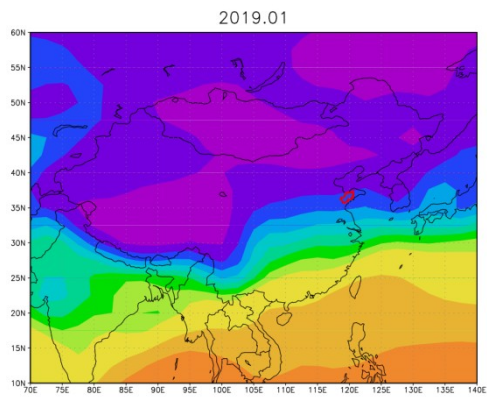


Fig.8. Distributions of wind field (arrows) and humidity field (colors) at 850hPa over the Jiaolai Plain and adjacent regions. Units of the color scale are % for humidity; the central red region is the study area.



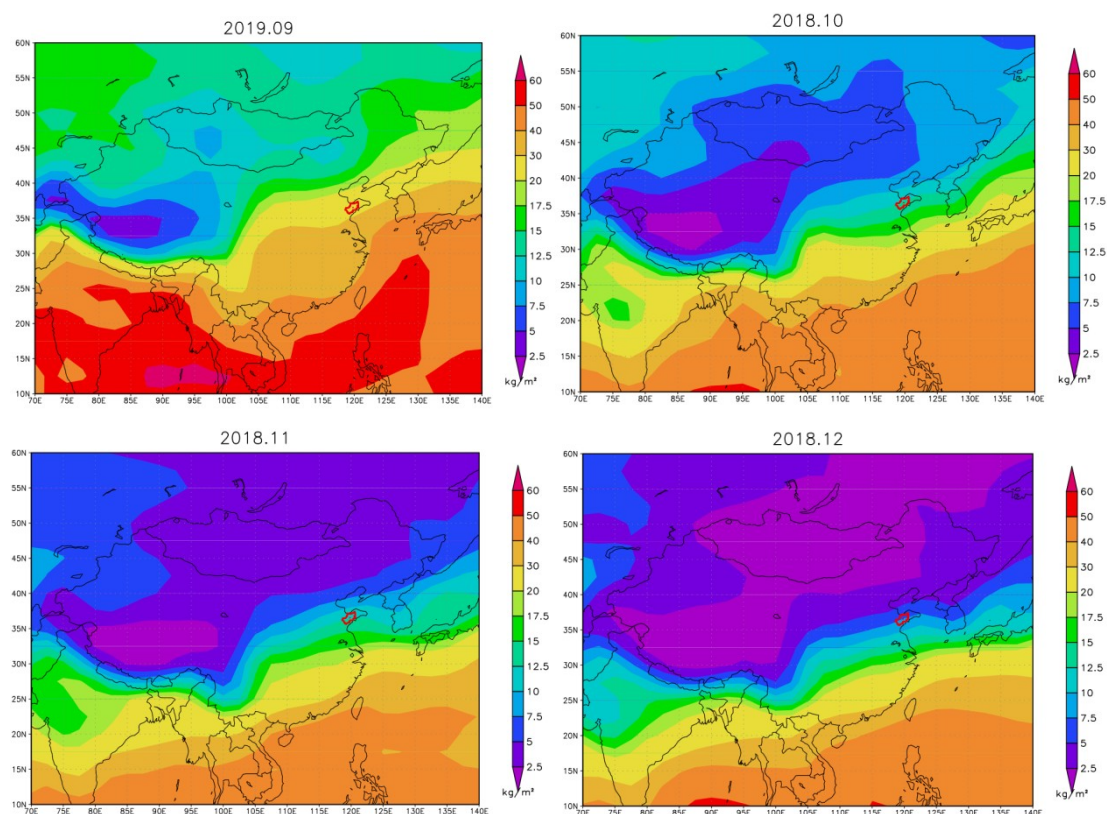


Fig. 9. Distributions of precipitable water (colors) at surface level over the Jiaolai Plain and adjacent regions. Units of the color scale are kg/m^3 ; the central red region is the study area.

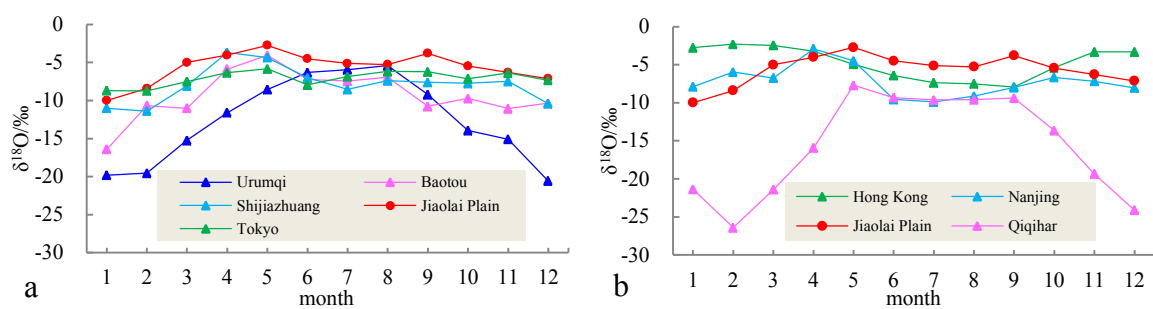


Fig. 10. Seasonal variation of $\delta^{18}\text{O}$ in precipitation on the Jiaolai Plain and other stations derived from GNIP network (a, transverse direction; b, longitudinal direction)

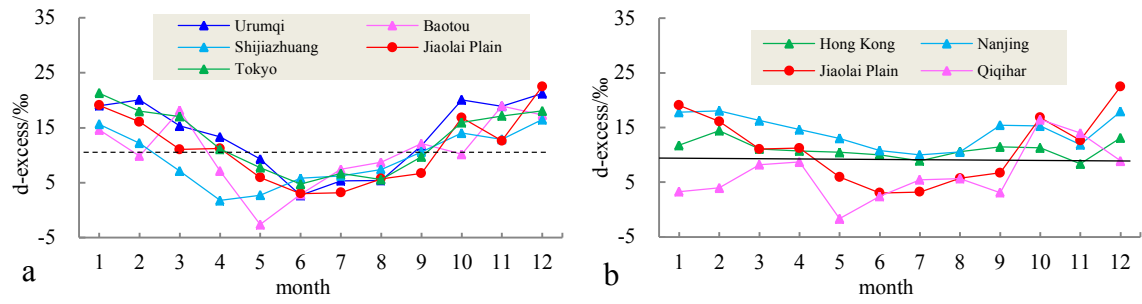


Fig. 11. The d-excess in precipitation on the Jiaolai Plain and other stations derived from GNIP network (a, transverse direction; b, longitudinal direction)