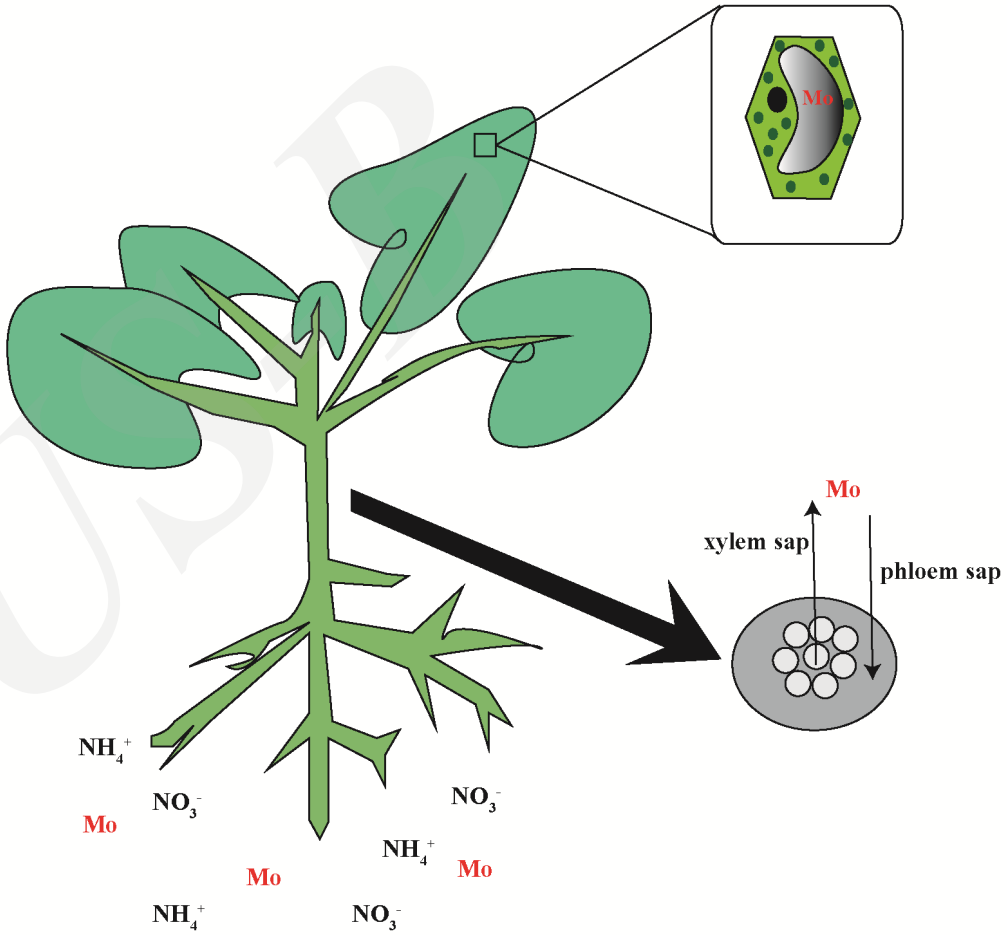
Cite this as: Shi-yu QIN, Xue-cheng SUN, Cheng-xiao HU, Qi-ling TAN, Xiao-hu ZHAO, 2017. Uptake, transport and distribution of molybdenum in two oilseed rape (*Brassica napus* L.) cultivars under different nitrate/ammonium ratios. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, 18(6):512-521. http://dx.doi.org/10.1631/jzus.B1600249

Uptake, transport and distribution of molybdenum in two oilseed rape (*Brassica napus* L.) cultivars under different nitrate/ammonium ratios

Key words: ***Brassica napus*** **L., Nitrogen source, Xylem and phloem transport, Subcellular distribution**

Research Summary

This study is to investigate the effects of different nitrate source on molybdenum (Mo) uptake, transportation, and distribution between two oilseed rape (*Brassica napus* L.) cultivars. Main Mo determination in the following aspects:



1) Root, stem, leaf; 2) Xylem and phloem sap; 3) Cell wall, organelle, and soluble fraction in mesophyll cell

Main conclusions

- **Equal** NO_3^-:NH_4^+ ratio is conducive to growth and Mo uptake of oilseed rape

- **Uptake** of Mo is reduced under high NH_4^+ nutrition**.**

- **The** uptake, transport, and distribution in soluble fraction of high Mo accumulated cultivar, ZS11, are higher than that of low Mo accumulated cultivar L0917.



Innovation points

Point 1 | **Two different Mo uptake cultivars were used in our experiment.**

Point 2 | **Evaluate the effects of four NO_3^-:NH_4^+ ratios on oilseed rape growth and Mo uptake, transport, and distribution in subcellular fraction.**

JZUS-B