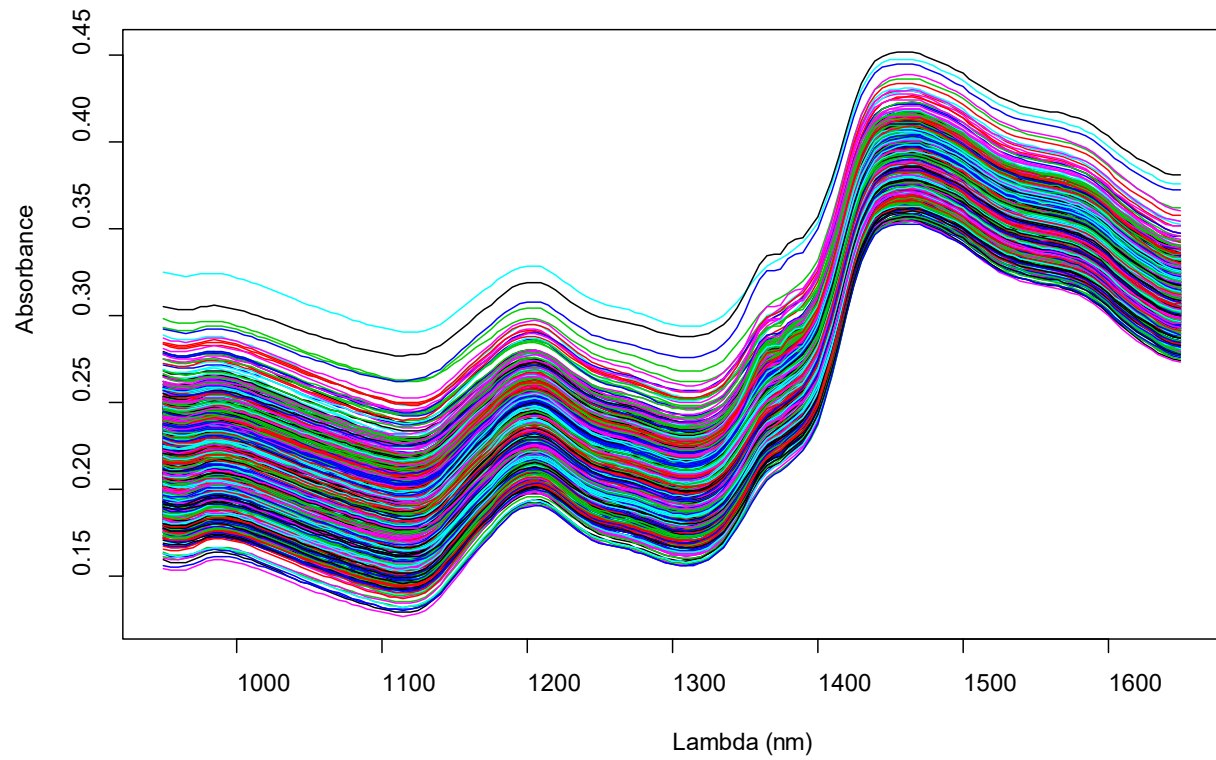
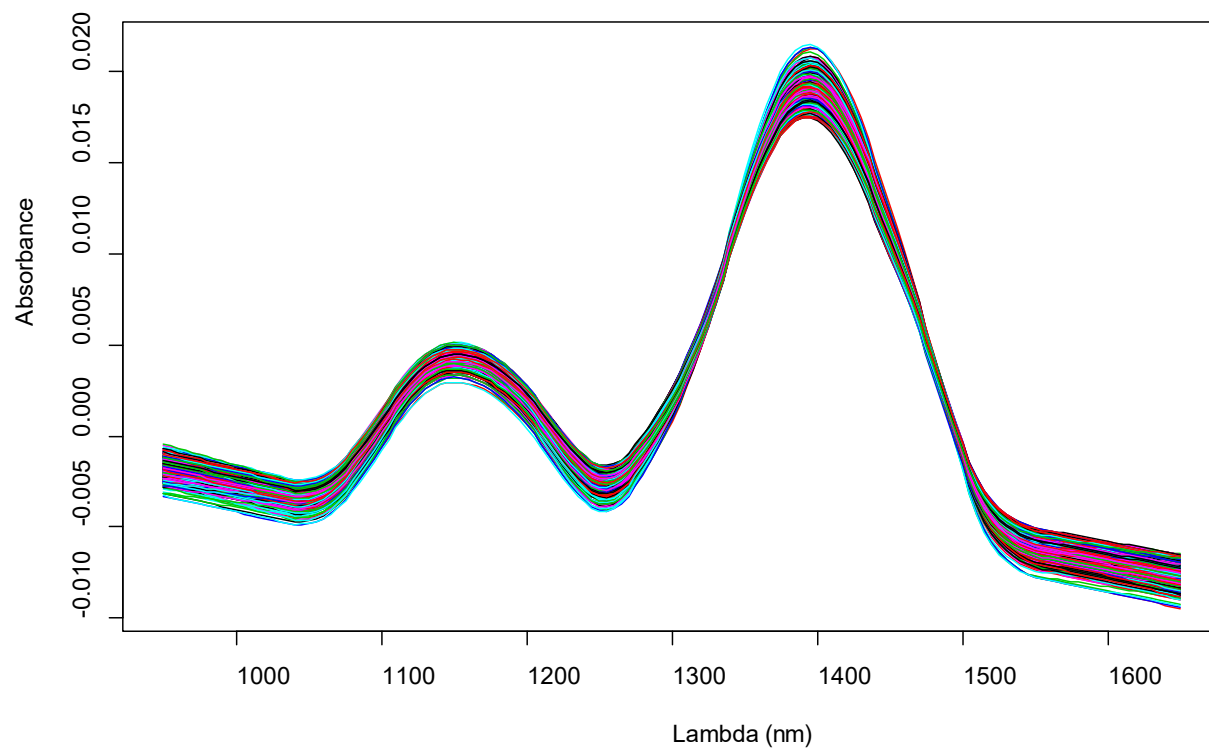


## Supplementary material 1



**Figure S1.** Change in absorbance from 950 to 1650 nm for raw NIR wavelengths (lines with different colors) for whole barley grain after malting.



**Figure S2.** Change in absorbance from 950 to 1650 nm for NIR wavelengths after Savitzky-Golay transformation (lines with different colors) for whole barley grain after malting.