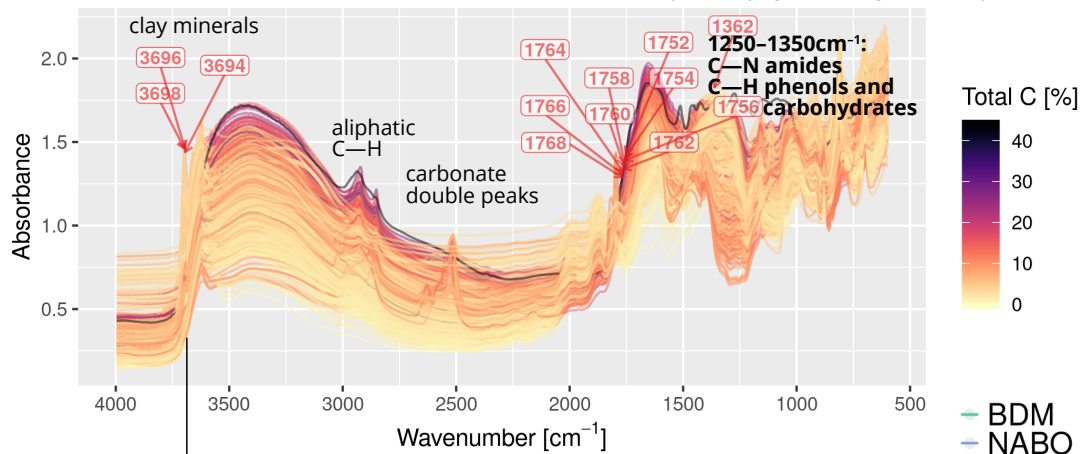


Red annotations: important predictive variables for total C (Cubist rules)

ca. 1750  $\text{cm}^{-1}$ :  
C=O (carboxyl group; edge feature)



Cross-validated results for Cubist models (all data)

$R^2 > 0.8$ : total carbon (C), nitrogen; organic carbon (OC); calcium (AAE10); clay; pH

$R^2 = 0.5-0.8$ : sand; silt; carbonates; magnesium (AAE10)

$R^2 < 0.1$ : copper (AAE10); zink (AAE10); potassium (AAE10); phosphorus (AAE10)

AAE10: extraction with ammonium acetate (AA) and ethylenediaminetetraacetic acid (EDTA)

