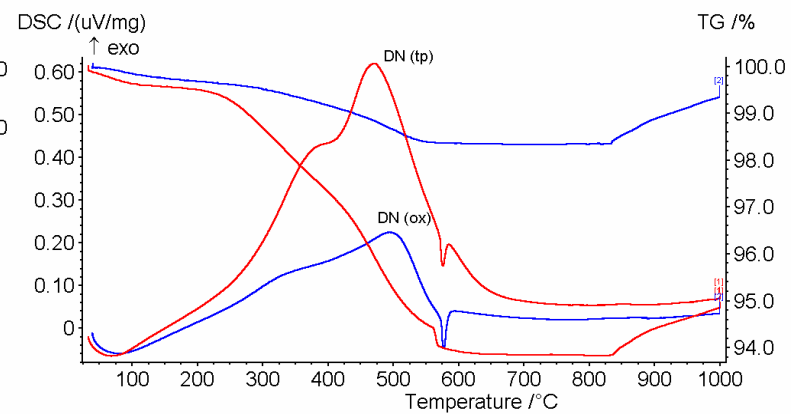
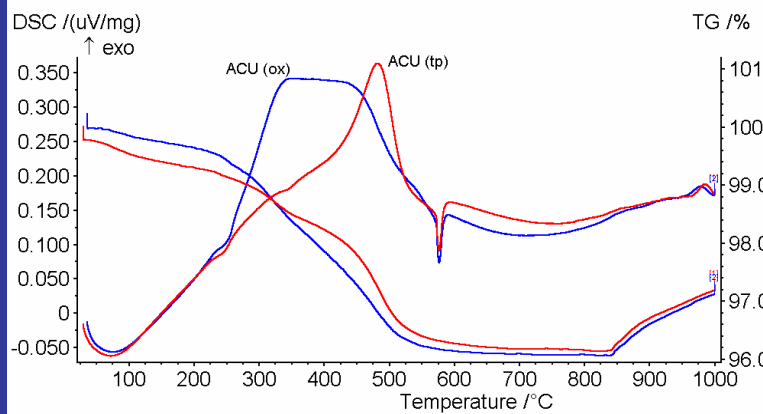
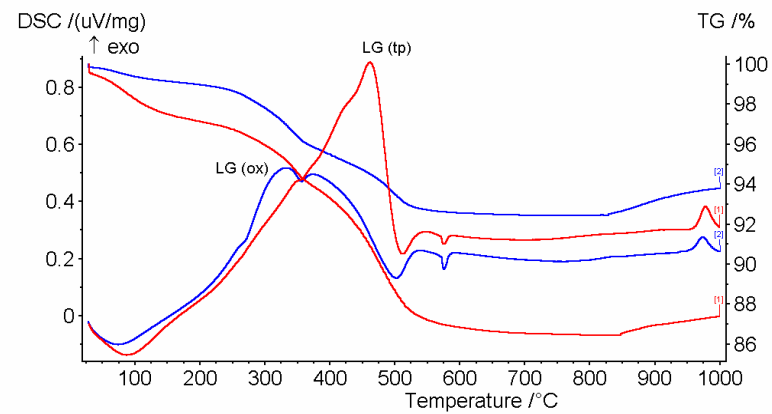
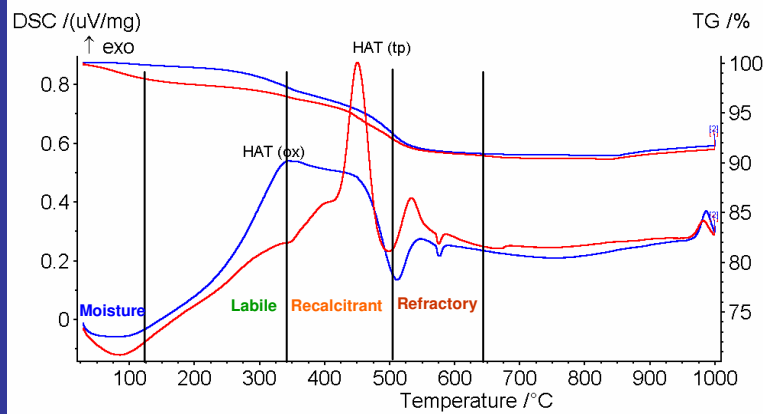
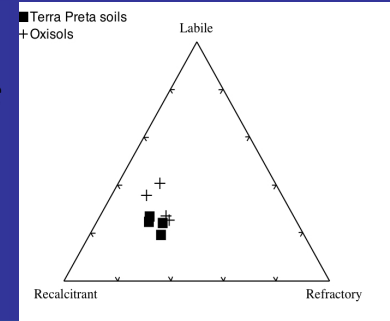


Characterisation of Terra Preta soils and chars by thermal analysis-quadrupole mass spectrometry

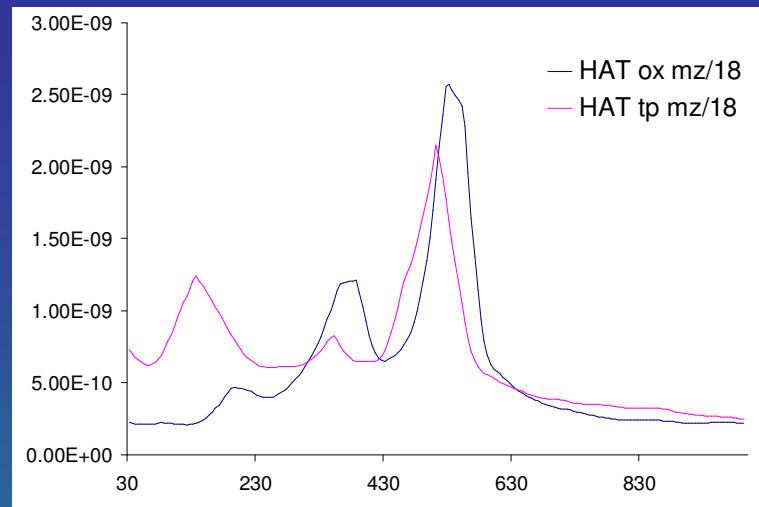
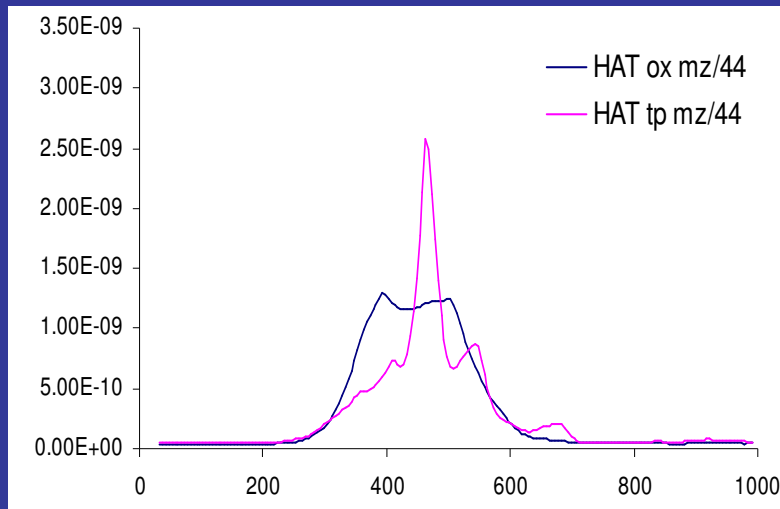
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 Newcastle uponTyne, NE1 7RU, UK.
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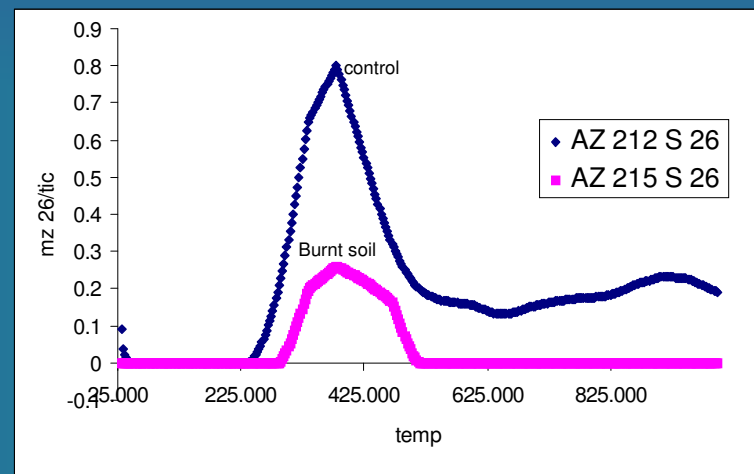
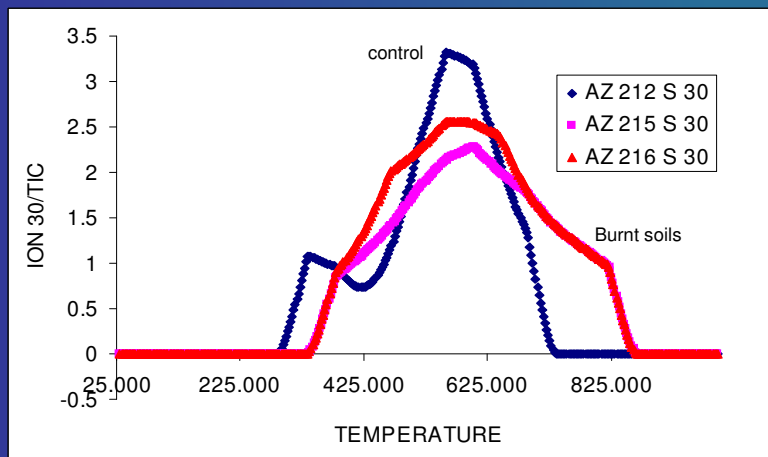
Thermogravimetric (TG) and differential scanning calorimetric (DSC) traces of Terra Preta and adjacent soils



Aim to quantify proportions of different organic matter components and to describe chemical transformations due to incorporation of charcoal and other materials .



QMS analysis clearly demonstrates presence of recalcitrant SOM in Terra Preta soils (tp).



QMS analysis of soils affected by fire show a redistribution of N species towards more recalcitrant forms of SOM.

Thermal analysis allows proportions of SOM to be quantify and demonstrates the potential value of the coupled TG-DSC-QMS system to determine C and N changes in soil.

Further TG-DSC-IRMS could help identify the source of recalcitrant and refractory SOM.

