Biochemical analysis of compression wood - FR with sub-contractor SCRI

Scottish Crop Research Institute (SCRI, subcontractor to FR) has analysed a sub-sample of discs using Fourier-transform infrared spectroscopy (FT-IR). Areas of wood classified by FR as severe compression wood were compared with areas classified as normal wood. Initial results for these samples showed that the ratio of condensed (cross-linked)/uncondensed lignin in normal wood tissues is greater than in compression wood (illustrated below). This suggests that compression wood tissues are less cross-linked, or in gross terms, less stiff. Further work will include solid state NMR to determine the amounts of different types of lignin present.



Absorbance spectra from FT-IR spectroscopy