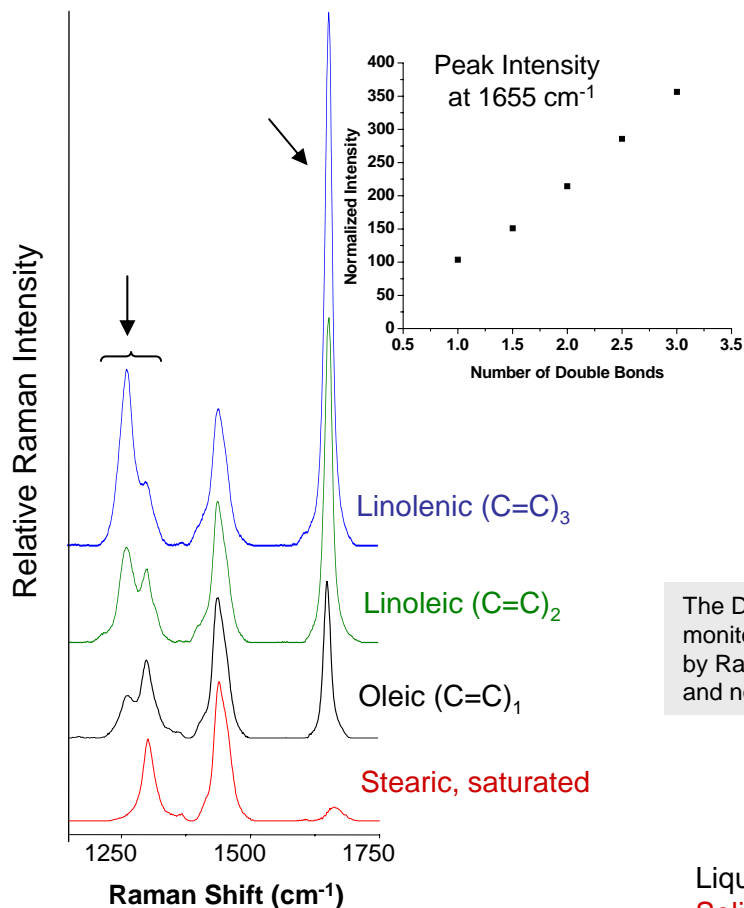


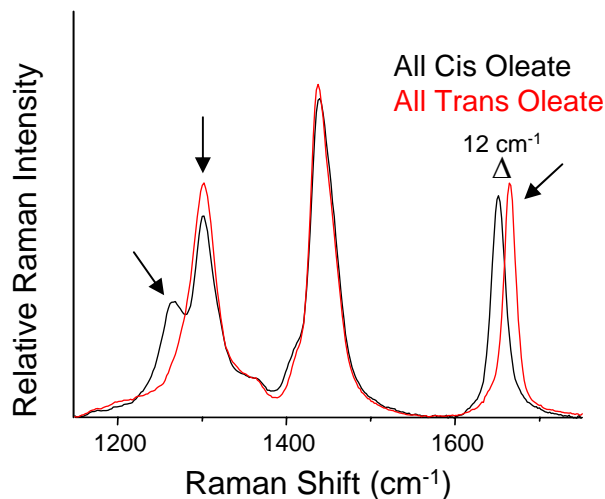
Fatty Acid Unsaturation, CIS/TRANS Isomerization & Phase Transition Analysis

The Dimension-P1™ Raman Systems provides valuable data on fatty acid unsaturation by quantification of double bonds with Raman peaks at 1250-1320 cm^{-1} and 1655 cm^{-1} , see insert below left (1440 cm^{-1} normalized Dimension-P1™ HR spectra), and CIS/TRANS isomerization by changes in peak intensities at 1270 & 1310 cm^{-1} and a peak shift at 1655 cm^{-1} , below right.

Degree of Unsaturation

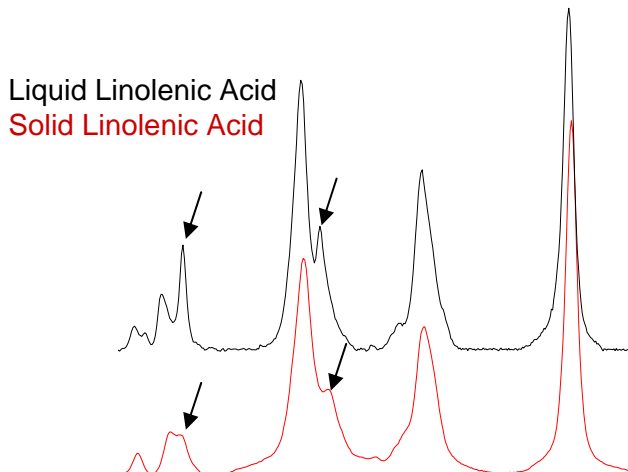


Cis/Trans Isomerization



The Dimension-P1™ Raman System provides an effective means of monitoring liquid/solid phase transition of fatty acids and other olefins by Raman peaks at 1100 & 1320 cm^{-1} , as illustrated in the overlaid and normalized spectra, shown below, of C18 linolenic acid.

Phase Transition



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