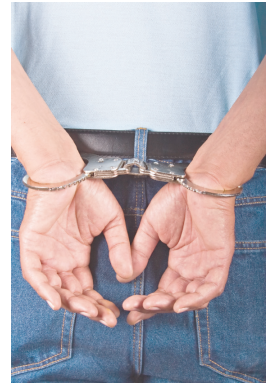
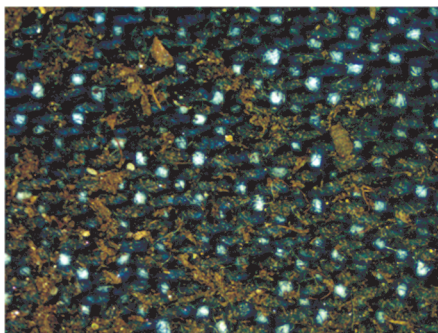


Infrared Spectroscopy – Forensic Application

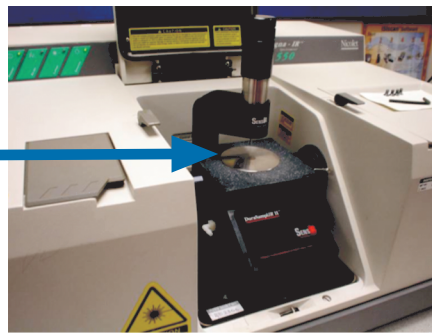
A suspect is arrested wearing muddy jeans – could the muddy mark provide any evidence?



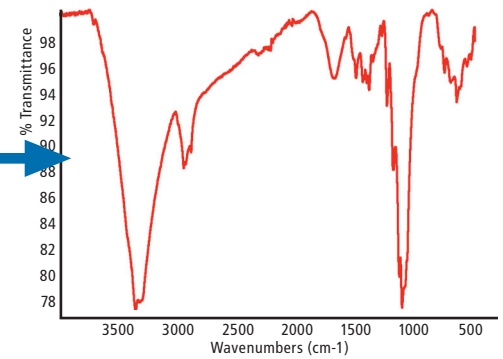
Infrared (IR) Spectroscopy can be used to directly analyse the mud on the jeans. The fabric is placed on the sampling attachment of the infrared spectrometer.



Dirty denim fabric

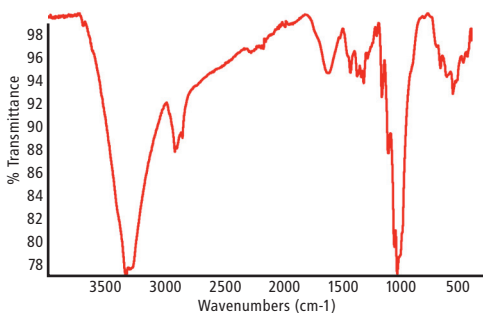


IR analysis

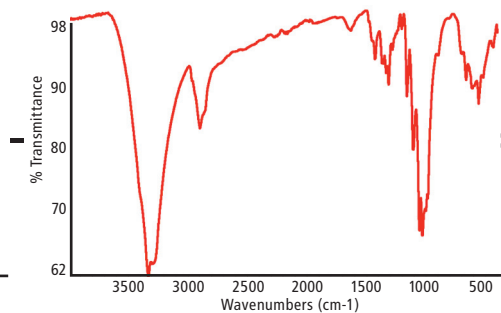


IR Spectrum of fabric and soil

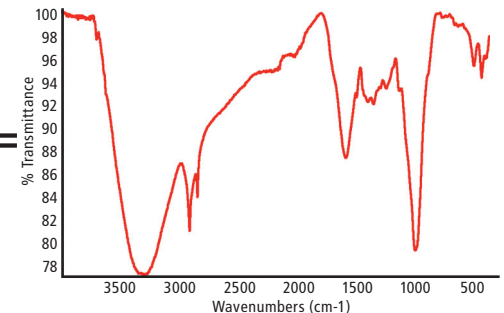
A computer programme can be used to remove the IR spectrum of the fabric from the IR spectrum of the fabric AND the soil to produce an IR spectrum which is characteristic of the soil.



Spectrum of fabric and soil



Spectrum of fabric



Spectrum of the soil adhered to fabric

The IR spectrum of A) The soil on the jeans can then be compared to the IR spectrum of B) The soil from the crime scene

