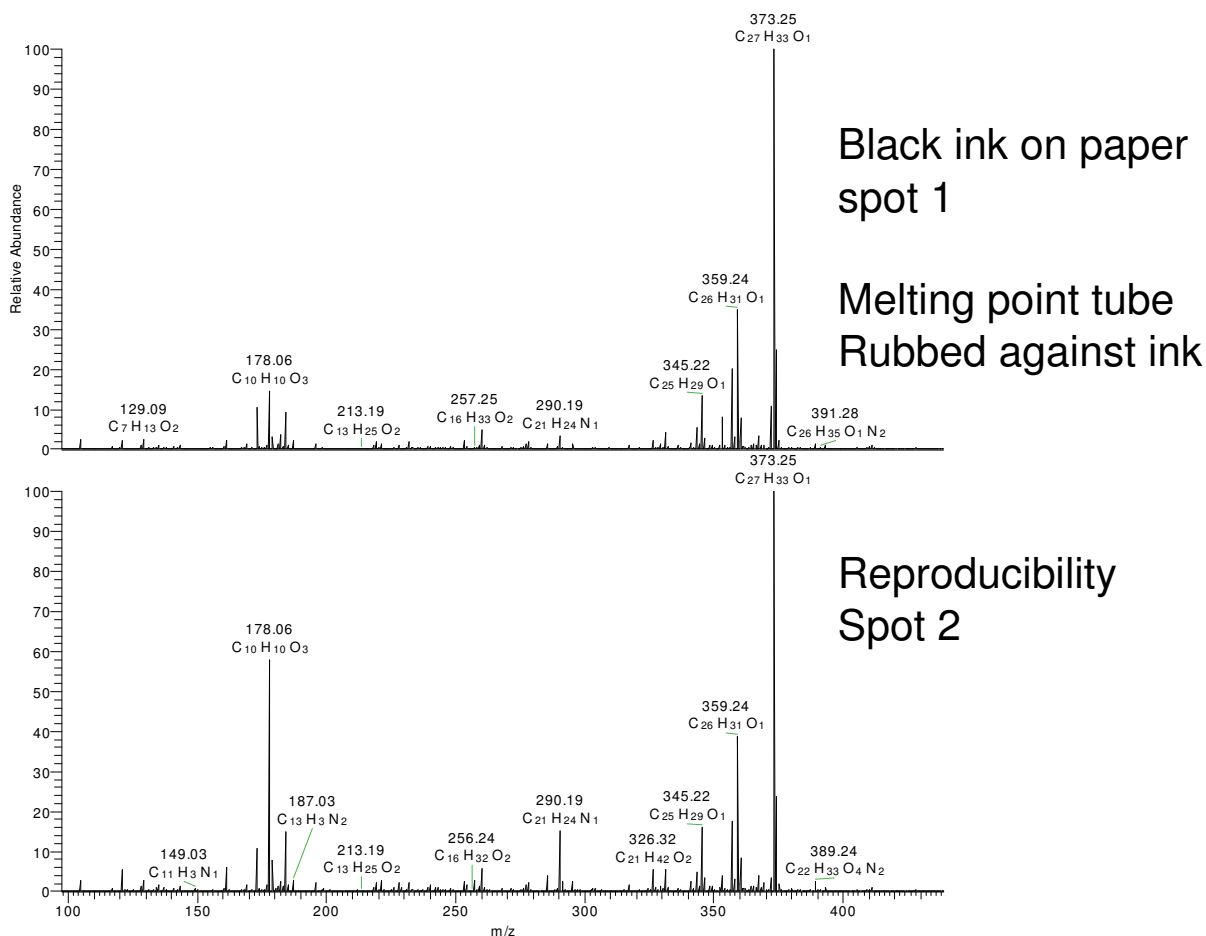
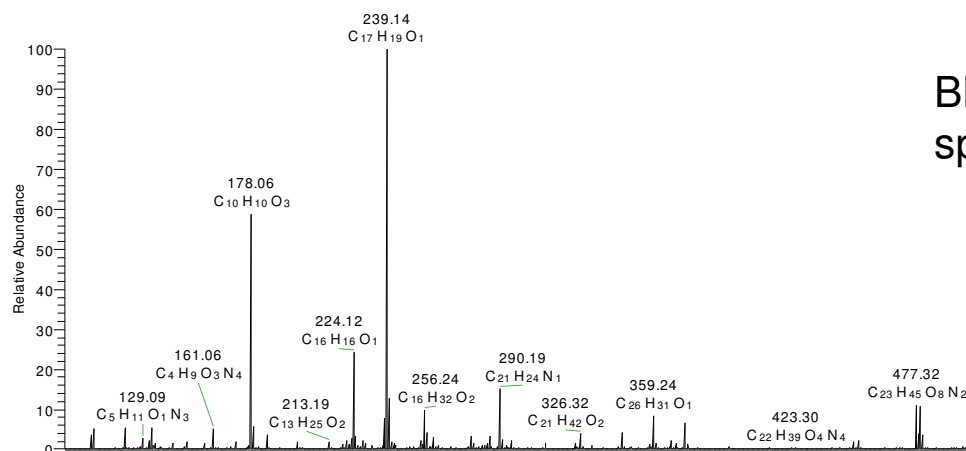


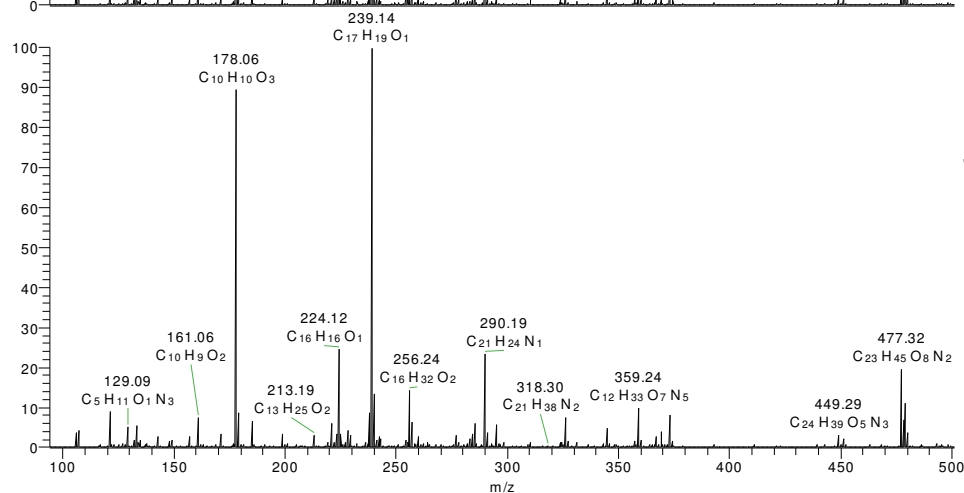
ASAP of Ink Samples in Forensic Application

ASAP mass spectrometry can be used to rapidly compare inks on paper and other surfaces. The mass spectra here are obtained on an Thermo Fisher Orbitrap mass spectrometer by first rubbing the end of a melting point tube against the paper to obtain a background mass spectrum of chemicals on the paper surface and then in the same file rubbing the melting point tube on the ink. The background spectrum is subtracted from the ink spectrum to obtain ASAP mass spectra of a black and a blue ink. The mass spectra obtained are reproducible and easily distinguish the inks. ASAP mass spectra from old and fresh inks display differences only in the low mass region (data not shown). We attribute this difference to the more volatile low-mass components vaporizing over time.





Blue ink on paper
spot 1



Reproducibility
Spot 2