Forensics: Nitroglycerin

Results in seconds
No sample preparation
Non-destructive

- Gunshot residue analysis on fabric is important for forensic analysis of crime scenes. Modern gun powders use nitrocellulose and nitroglycerin as basic ingredients.
- 2% Dichloromethylene in methanol (as a dopant) was infused at 10 µL/min to ionize nitroglycerin as a chloride adduct
- DSA/TOF analysis on fabric identified gunshot residue by confirmation of nitroglycerin with accurate mass
- Analysis was performed in 15 seconds with no sample preparation and external calibration