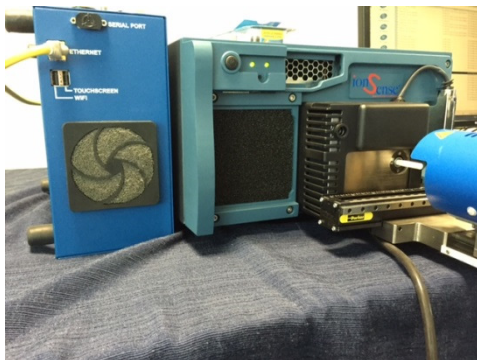


# DART Mobility

## The DART-QDa System

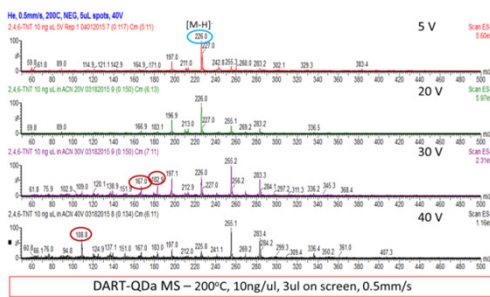
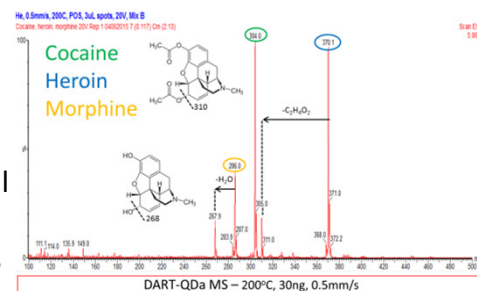


- With a 35 by 16 inch footprint the DART-QDa was designed to fit on a desktop or lab bench.
- The DART-QDa was also designed to be mobile, with the capability to fit onto a cart as a self-contained mass analyzer with no external hardware.
- The DART ionization source allows for the rapid analysis of samples with minimal preparation.
- As an ambient ionization technique, the DART can analyze samples in a raw form that GC or LC cannot match.
- The DART can be equipped with automation for rapid analysis of large sample sets.
- The DART-QDa has insource CID capabilities and can quickly switch cone voltages to collect all possible fragments.

Combining two Pittcon® Editor award winning technologies; the DART® ionization source (2005) with the Waters Acquity® QDa detector (2014) to enable an economically assessable compact mass detection system

### Drugs:

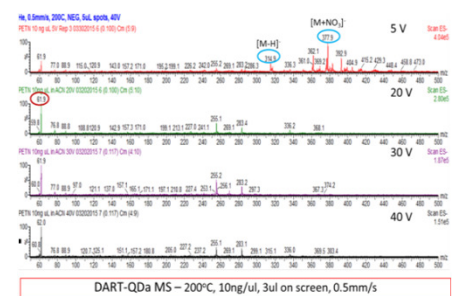
This mixture was prepared because the combination of cocaine with heroin or morphine used in the same syringe is called “speedball”. All three drugs are detected simultaneously, with fragments for confirmation.



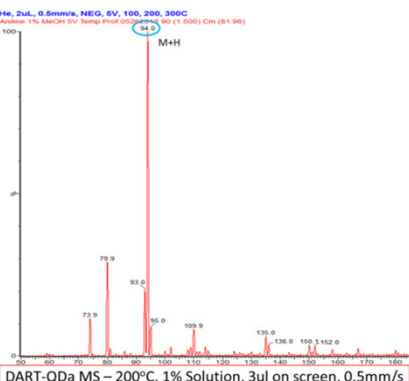
### Explosives:

The spectrum shows the analysis of **2,4,6-TNT**. The cone voltage was varied and the **resulting fragments** were identical to those detected on a higher performance instrument

The spectrum to the right is from the analysis of another explosive, **PETN** detected as the nitrate adducts at 378 and 362 daltons. The m/z 315 dissociates readily, so a low cone voltage can fragment the ion.



Bring the MS to the sample, not the sample to the MS



**Toxic Industrial Chemicals:** The spectrum shows the analysis of a 1% **aniline solution**. Toxic industrial chemicals, or TICs, are hazardous chemicals that are used throughout the world. Therefore, it is important for organizations to have a way to quickly and easily analyze TICs.