

Thermal Desorption DART-MS

DART®-TD: Innovative System for Threat Detection



Key Features and Benefits

DART-TD is an innovative system that combines thermal desorption technology with DART-MS for threat detection. It offers rapid detection of a broad range of threats, including but are not limited to explosives and narcotics.

- Compatible with PTFE-coated fiberglass swabs
- External temperature controller offers precise control of desorption temperatures up to 250°C
- Secondary inlet enables dopant delivery devices such as permeation tubes for enhanced detection
- Detection in approximately 10 seconds or less
- Minimize false alarms with mass spectral information
- Permits detection of peroxide explosives and inorganic explosives such as perchlorates and nitrates
- Compatible with any LC/MS system



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Combining thermal desorption technology with DART-MS for rapid threat detection

Rapid Characterization

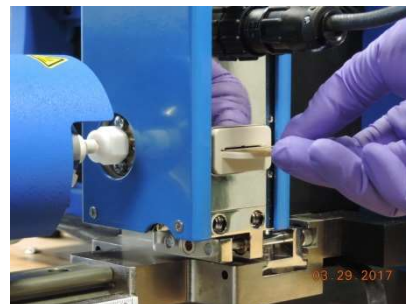
Similar to conventional IMS techniques, DART-TD delivers rapid detection. Simply swipe an area with PTFE-coated fiberglass swabs and insert them into the DART-TD for near instantaneous thermal desorption and characterization of samples in as little as **6-10 seconds**.



Threat Detection

DART-TD enables the detection of a broad range of explosives and drugs of abuse. Organic-based explosives such as **RDX**, **TNT**, **PETN**, **TATP** and **HMTD**, as well as, inorganic-based explosives such as **Perchlorates** and **Nitrates** can all be readily detected with quantities as low as 5-50 ng.

Threats involving the usage of drugs of abuse, including stimulants, opioids, cathinones, cannabinoids, designer drugs and others, can also be readily detected.



Selectivity

Minimize false alarms while increasing selectivity with mass spectral information. DART-TD permits detection of intact molecules in addition to fragment ions for confirmation.

Dual-mode Detection

DART-TD permits the operation of both positive and negative ionization modes near simultaneously for the detection of a wide range of compounds from a single analysis.

