Thermal unit for effective real time direct analysis

ionRocket

ionRocket

Have you been stressed with sample preparation such as selecting solvents and separation conditions? ionRocket is the solution.

ionRocket is an optional tool for DART-MS.
ionRocket consists of two parts such as thermal controller and heating tube.
DART-MS is a direct analysis that does not require sample preparation.

Thermal controller

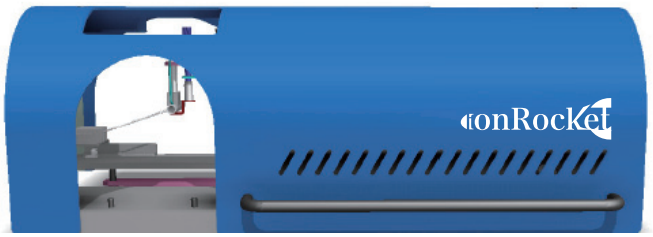
This enables easy compound separation with controlled thermal gradient, which utilizing the different volatilizing temperature of each compound.

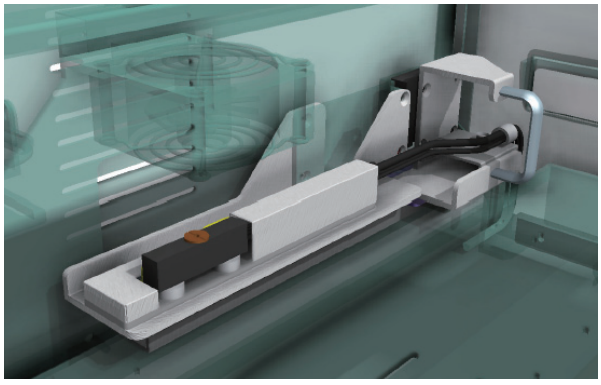
Heating tube

This is a special tube for DART-MS to clean up residual compounds inside a ceramic tube, the part to introduce ionized compounds into MS.

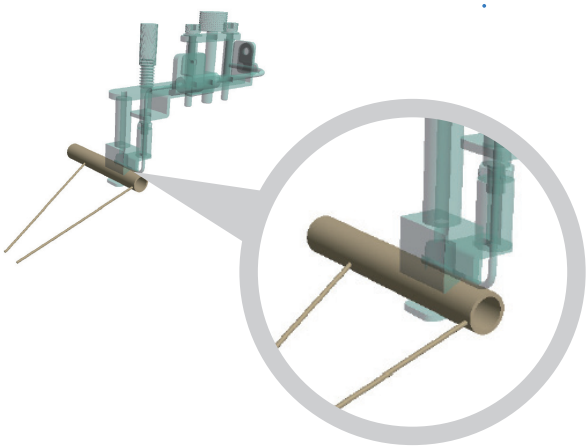
Feature

- Enabling rapid compound identification with easy separation using thermal gradient
- Increasing the volume of volatilized and ionized compounds by heating a whole sample
- Reducing the risk of contamination when analyzing unknown compounds

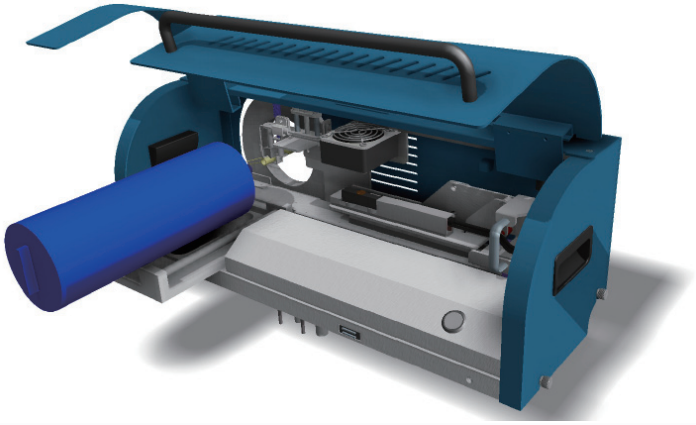




Thermal controller



Heating tube

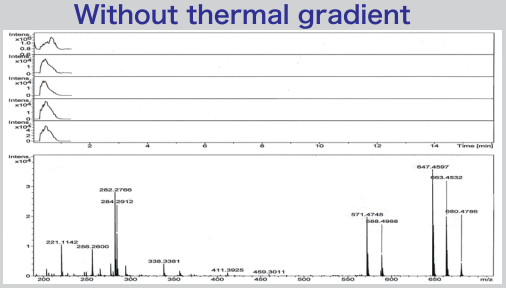


Analytical Results

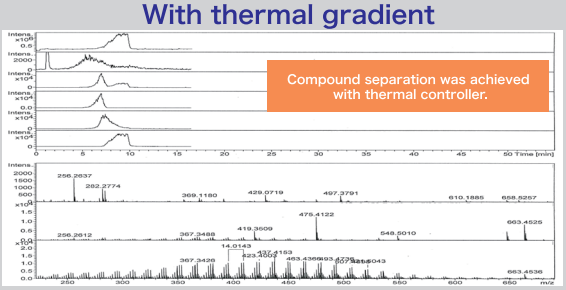
<Compound Separation with thermal controller>

Analyzed Samples : Polypropylene

Without thermal gradient



With thermal gradient



Enabling effective compound analysis!

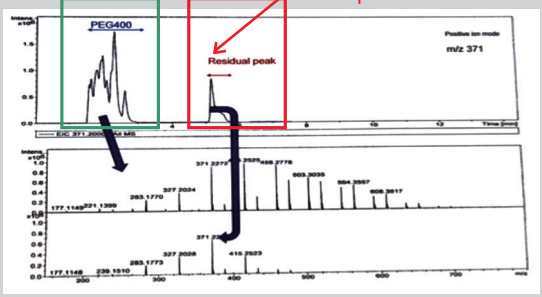
Summary

	Without thermal controller	With thermal controller
Detectable compounds at a single analysis	Only low molecular weight compounds were identified.	Both low and high molecular weight compounds were identified simultaneously.

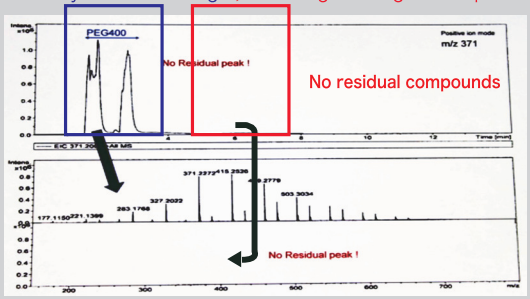
<Cleaning up residual compounds inside a ceramic tube with heating tube>

Analyzed sample: Polyethylene glycol

Analysis without heating ➡ Heating — Checking residual compounds inside the tube



Analysis with heating ➡ Heating with higher temperature



No need to clean up ceramic tubes after each analysis

Summary

	Without heating tube	With heating tube
Carry-over of residual compounds	Yes	No
Cleaning up of ceramic tubes or replacement to avoid residual contamination after every analysis	Required	Not required

*Please note that some compounds might be difficult to analyze with ionRocket.

Specifications

Thermal controller	Maximum temperature 600℃
Heating tube	Maximum temperature 200℃
Control box	Power source AC100~240±10V (50/60Hz)
Electricity consumption	Operation State : AC100V 320W typ. AC240V 336W typ. Stand-by State : AC100V 32W typ. AC240V 101W typ.