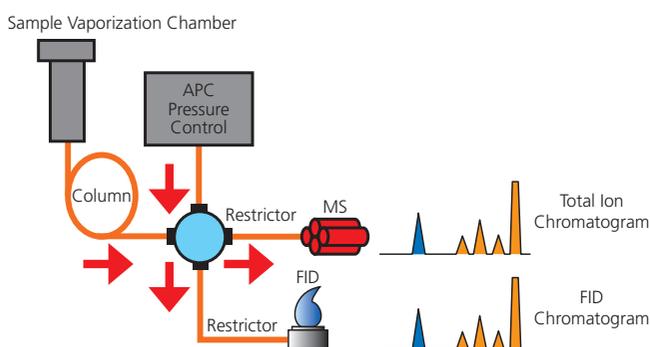


Detector Splitting System

GC / GCMS Advanced Flow Technology



Obtain multiple chromatograms with a single analysis.



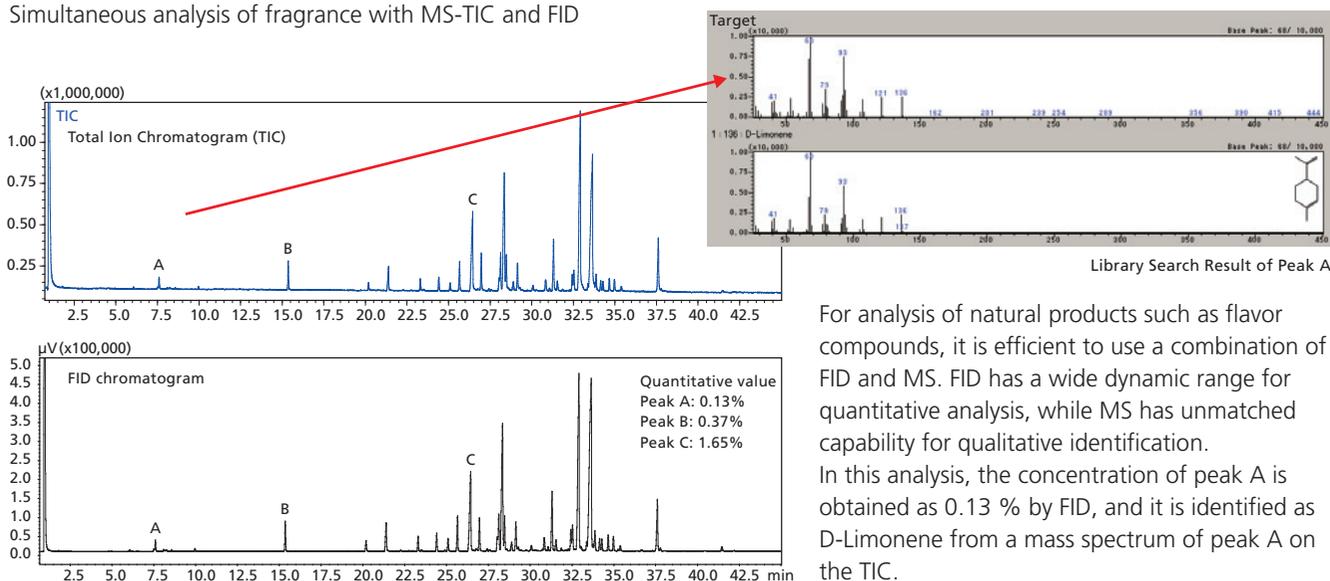
Shimadzu Capillary Gas Chromatograph GC-2010 Plus

Detector Splitting System

Compounds eluting from an analytical column may be split to multiple detectors to obtain multiple chromatograms. By pairing a selective GC detector with another complementary GC detector or mass spectrometer, the analyst is able to obtain multiple channels of complementary data. Selective GC detectors provide quantitative and qualitative data for specific classes of compounds. The mass spectrometer provides compound identification thru library searches as well as quantitative information. Using detector splitting, signals from up to three detectors can be acquired in a single injection, thus increasing productivity.

Application

Simultaneous analysis of fragrance with MS-TIC and FID



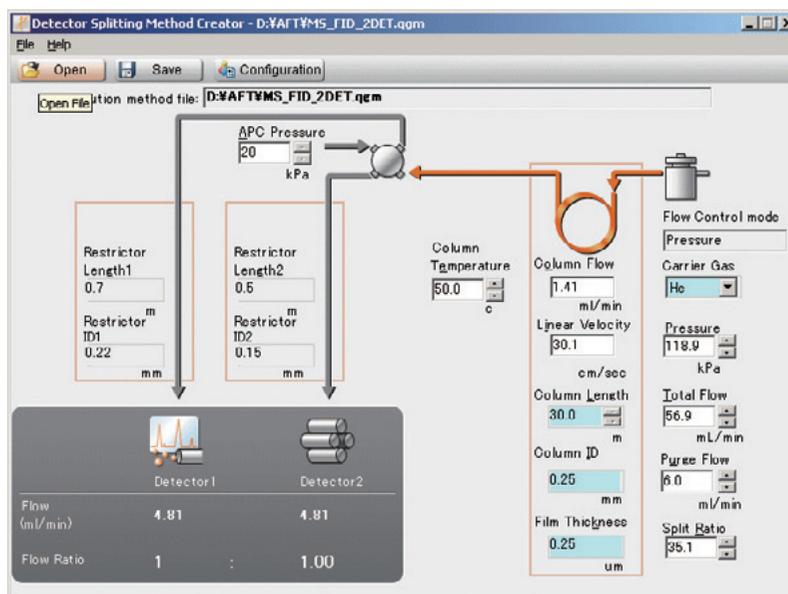
For analysis of natural products such as flavor compounds, it is efficient to use a combination of FID and MS. FID has a wide dynamic range for quantitative analysis, while MS has unmatched capability for qualitative identification. In this analysis, the concentration of peak A is obtained as 0.13 % by FID, and it is identified as D-Limonene from a mass spectrum of peak A on the TIC.

Features

- **Employs inert hardware with low absorbance characteristics to achieve high-quality results.**
The detector splitting device employs low dead volume hardware with an inert coating throughout the sample pathway in combination with a high-precision digital flow controller.
- **The Software Makes It Easy to Set Complicated Analytical Conditions**
Calculating split ratio and carrier gas flow rate for each detector removes the guesswork out of method development.



Detector splitting device



The software can be downloaded from Shimadzu's website free of charge.
<http://www.shimadzu.com/an/gc/advflowtech/aft-dl.html>

Specifications

Detector Splitting System requires an additional GC detector.

Detector Splitter Device Maximum Operating Temperature: 350°C

Software: Advanced Flow Technology Software for determining detector splitting system parameters having the following functions

- Method loading/ saving
- Calculation of detector flow rate and split ratio (theoretical value)
- High flow warning indicator at setting overflow value

Applicable Models: GC-2014, GC-2010 (Plus) and GCMS-QP2010 (Ultra) series, limitations exist for use with the GCMS-QP2010S (SE).

Workstation : GCsolution (Version 2.32 or later), GCMSsolution (Version 2.53 or later)



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