

Application
Data Sheet

No.23

System Gas Chromatograph

**Benzene Toluene Analysis
Nexis GC-2030BTA2**

An appropriate internal standard such as butanone is added to the gasoline sample, which is then introduced into a gas chromatograph equipped with two columns and a column switching valve. The sample first passes through a non-polar pre-column (OV-1) that elutes components according to their boiling points. After the elution of isooctane, the valve is switched to back-flush the compounds whose boiling points are higher than isooctane and vent them to the atmosphere. Isooctane and lighter portions are directed into the polar column and elute quickly without separation while benzene and toluene are eluted through the polar column, separated and detected by TCD. The system includes Lab Solutions GC workstation software.

Analyzer Information

System Configuration:

One valve / two packed columns with one FID detector

Sample Information:

Benzene, Toluene in Gasoline

Methods met:

ASTM-D3606

Concentration Range:

No.	Name of Compound	Concentration Range	
		Low Conc.	High Conc.
1	Benzene	0.001%	5%
2	Toluene	0.020%	20%

Detection limits may vary depending on the sample. Please contact us for more consultation.

System Features

- 9 minutes analysis for gasoline analysis can be carried out
- Single channel with dual packed column by using FID detector
- Sample elutes from non-polar pre-column according to boiling point and heavy hydrocarbons are backflushed.

Typical Chromatograms

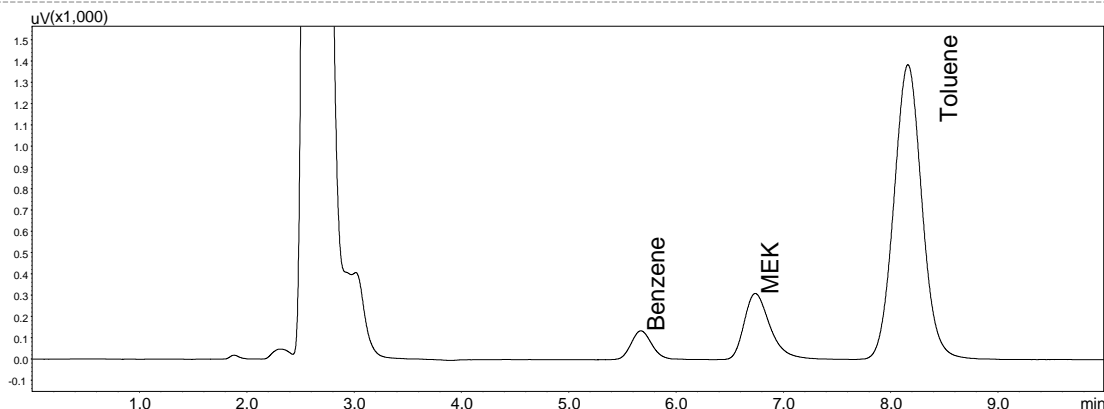


Fig. 1 Chromatogram of FID

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