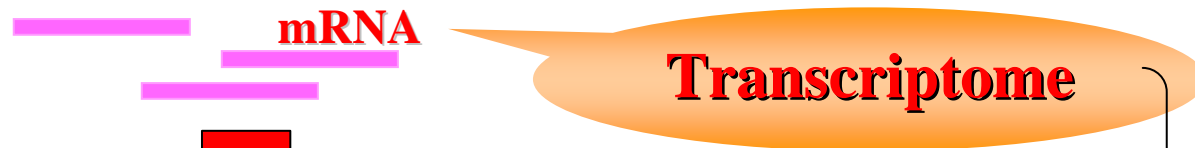


Metabolomics on Postgenomic era



Flow of media on the run through the genome information

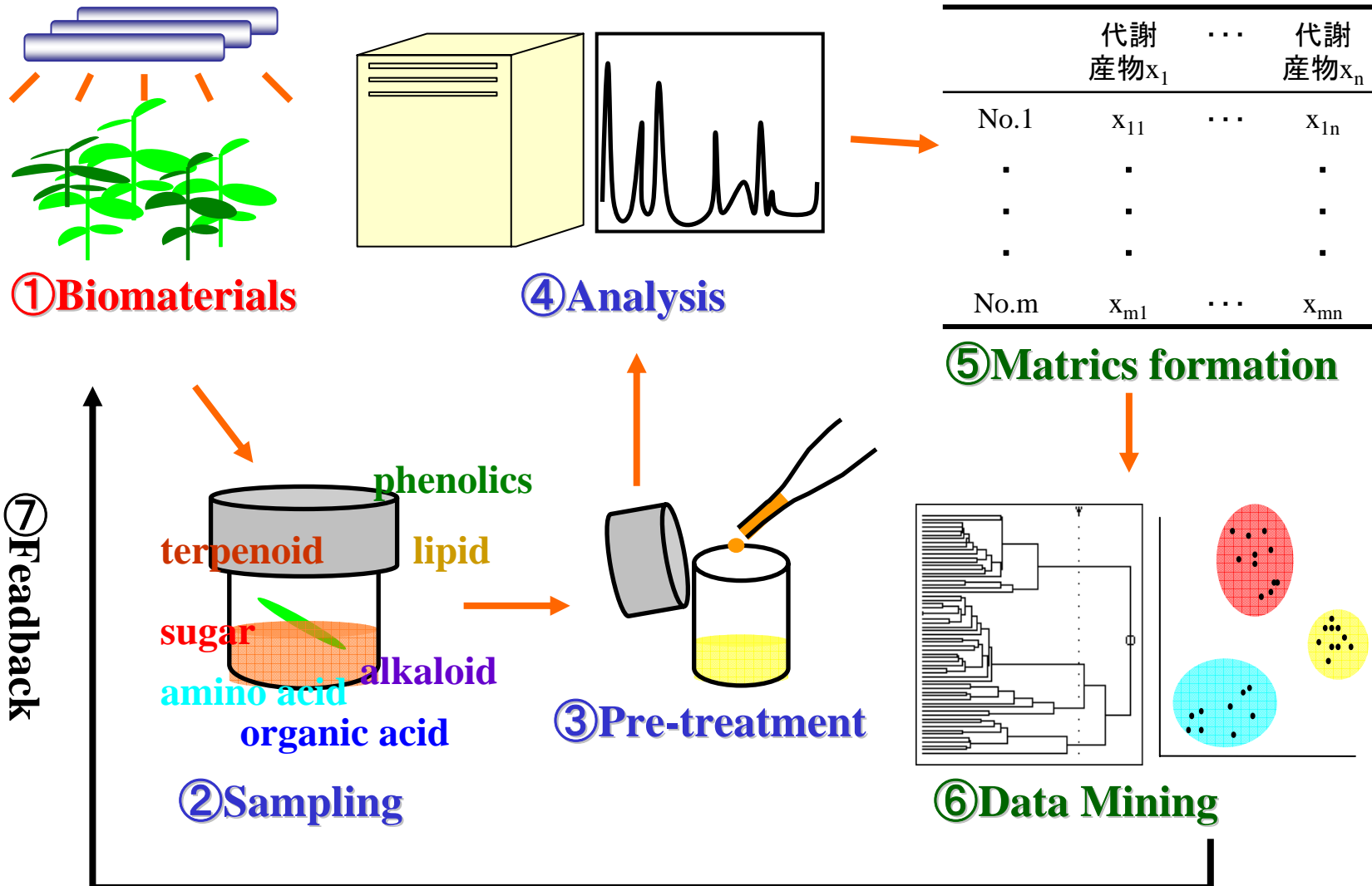
Result of implementation of genome information

Merit of Metabolomics

*Available for commercial plant and microorganisms

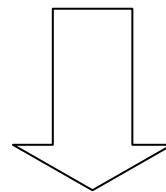
*High performance fingerprint

“Mabolomics” is an interdisciplinary research between **Bioscience**, **Analytical chemistry** and **Informatics**



Requirement of Analytical Science for Metabolomics

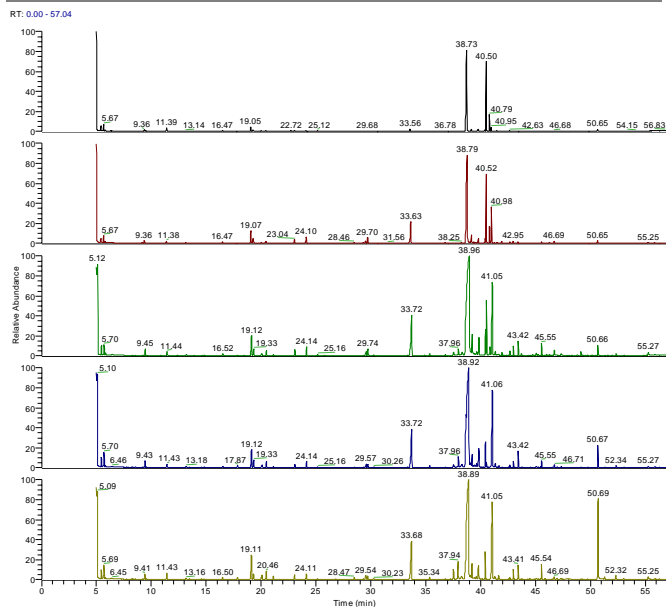
Item	Conventional	Metabolomics
Separation	Theoretical plate	Peak capacity
MS	Limit of Detection	Dynamic range
Objects	Limited	Non-target
Data analysis	Target analysis	Data Mining



Novel approach would be essential for technical breakthrough for Metabolomics

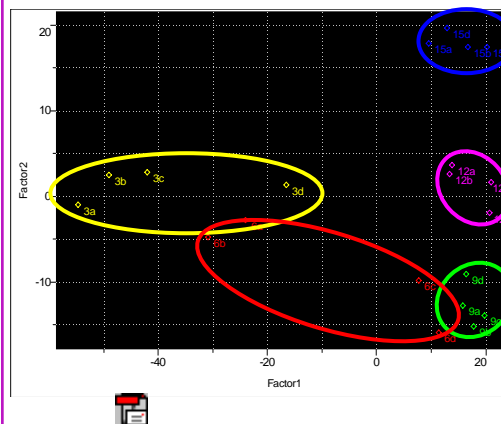
Data mining

GC/MS Chromatogram

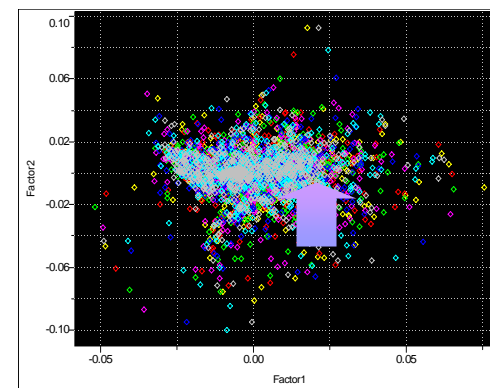


Muti-variate analysis

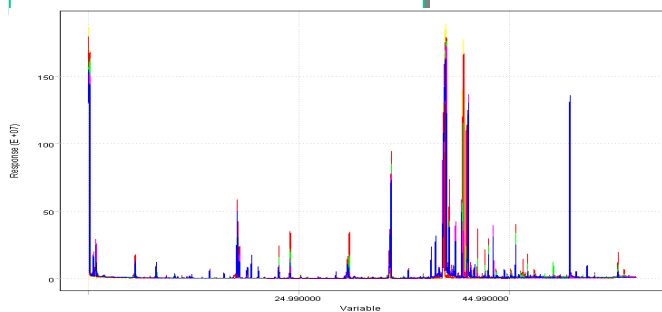
Score:-



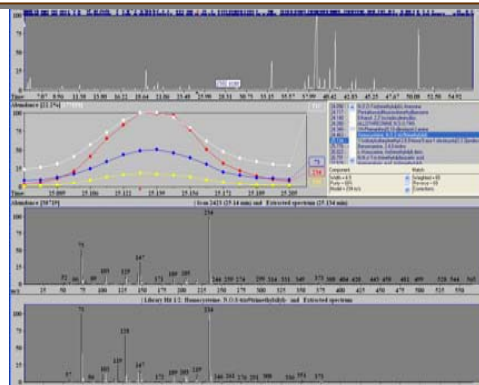
Loading:-



Pre-treatment



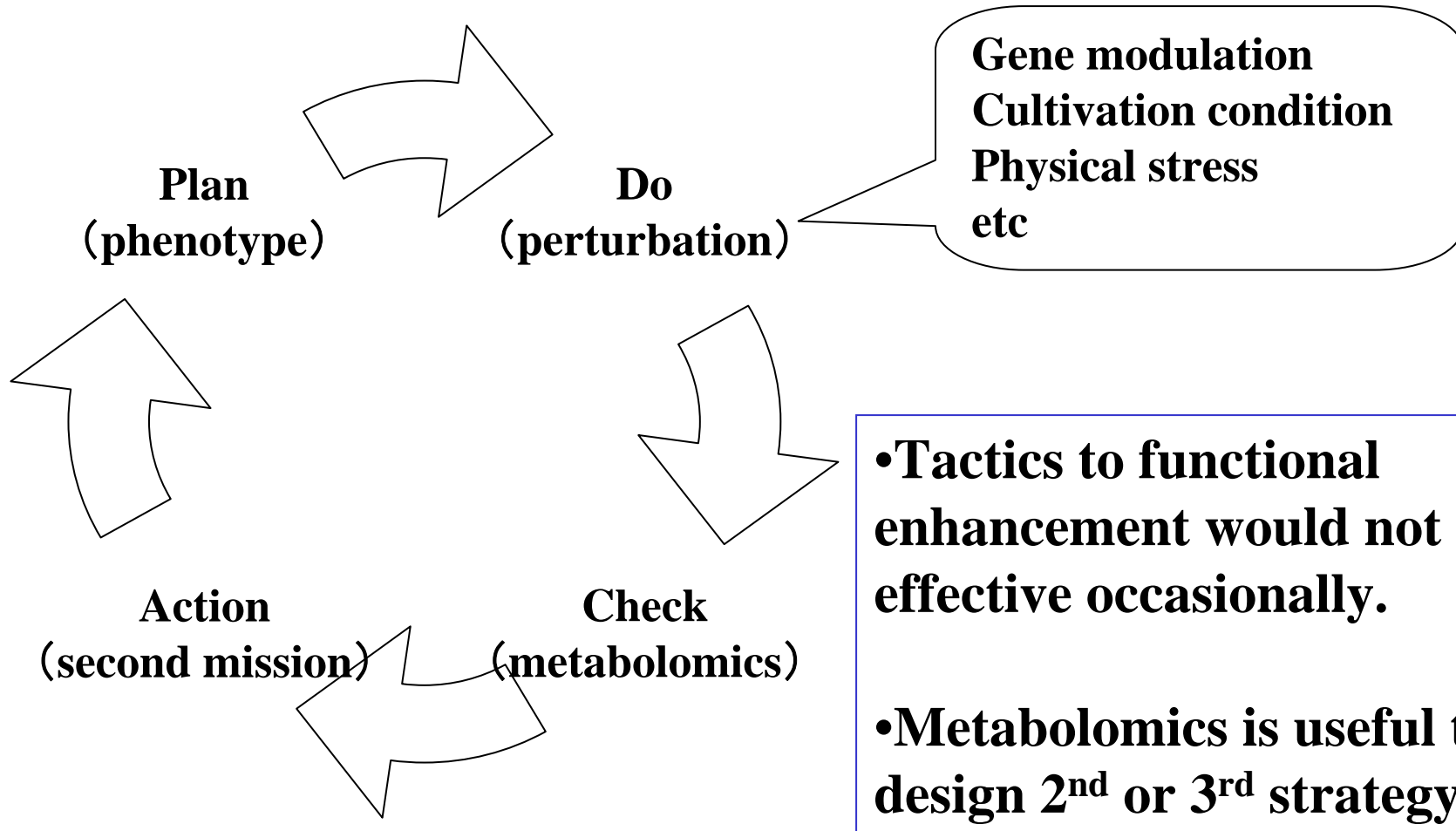
Peak identification



Peak List

	Met.	..	Met.
	x_1	.	x_n
No.1	x_{11}	..	x_{1n}
	.	.	.
	.	.	.
	.	.	.
No.m	x_{m1}	..	x_{mn}
	.	.	.

Metabolomics is useful navigator for bioproduction



Application of Metabolomics

- Bioscience
- Medical
- Agriculture
- Food
- Bio-industry
- Etc