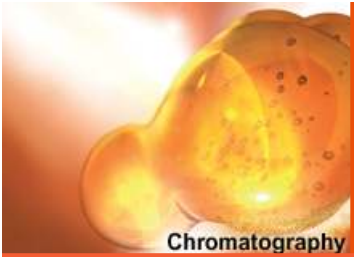


**Recent Improvements
in the Forensic Analysis of
Amphetamine-type Stimulants (ATS)
in Biological Specimens:
Automated derivatization GCMS**



**Akihiro Miki, Munehiro Katagi, Kei
Zaito, Mayumi Nishikawa, and Hitoshi
Tsuchihashi**

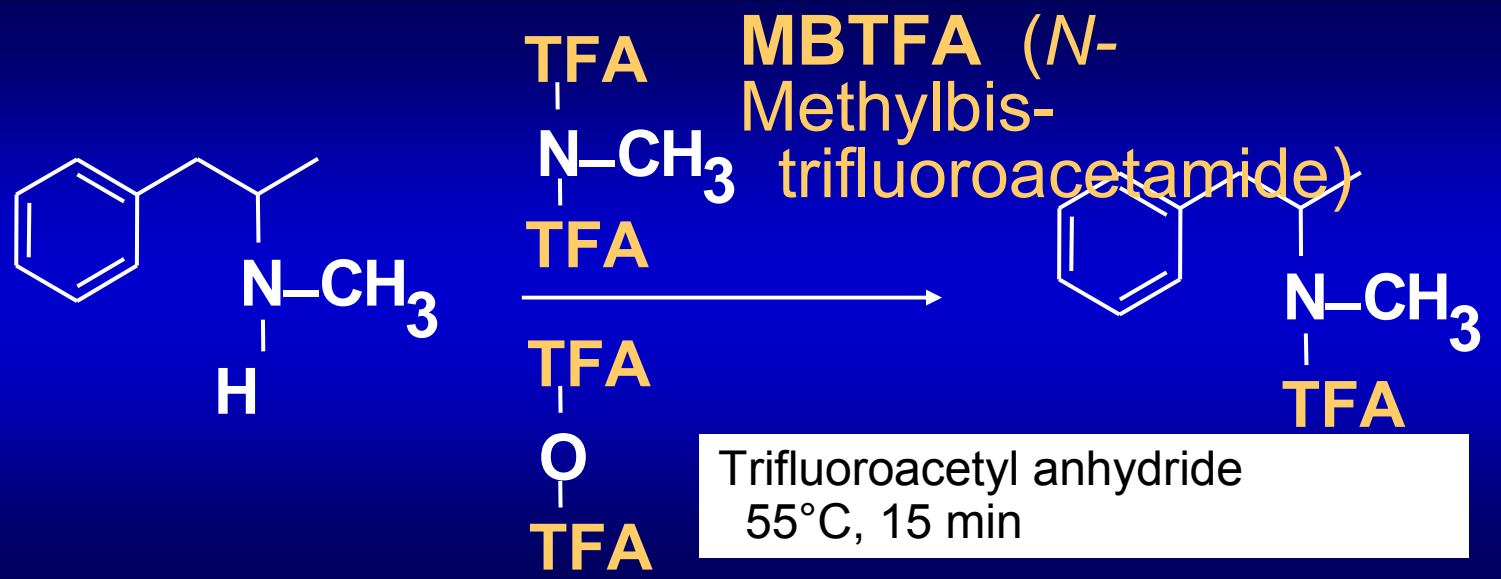
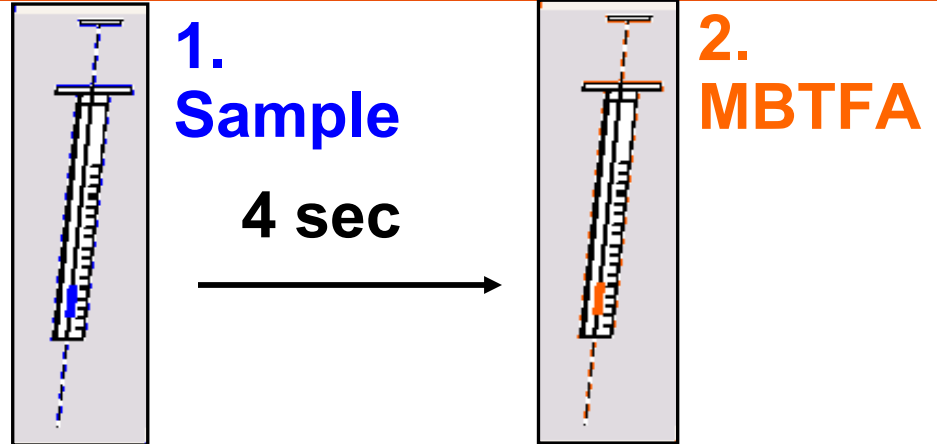
*Forensic Science Laboratory,
Osaka Prefectural Police Headquarters, Japan*

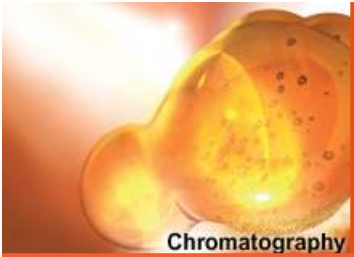


Chromatography

2. Automated derivatization GC-MS

Forensic Analysis



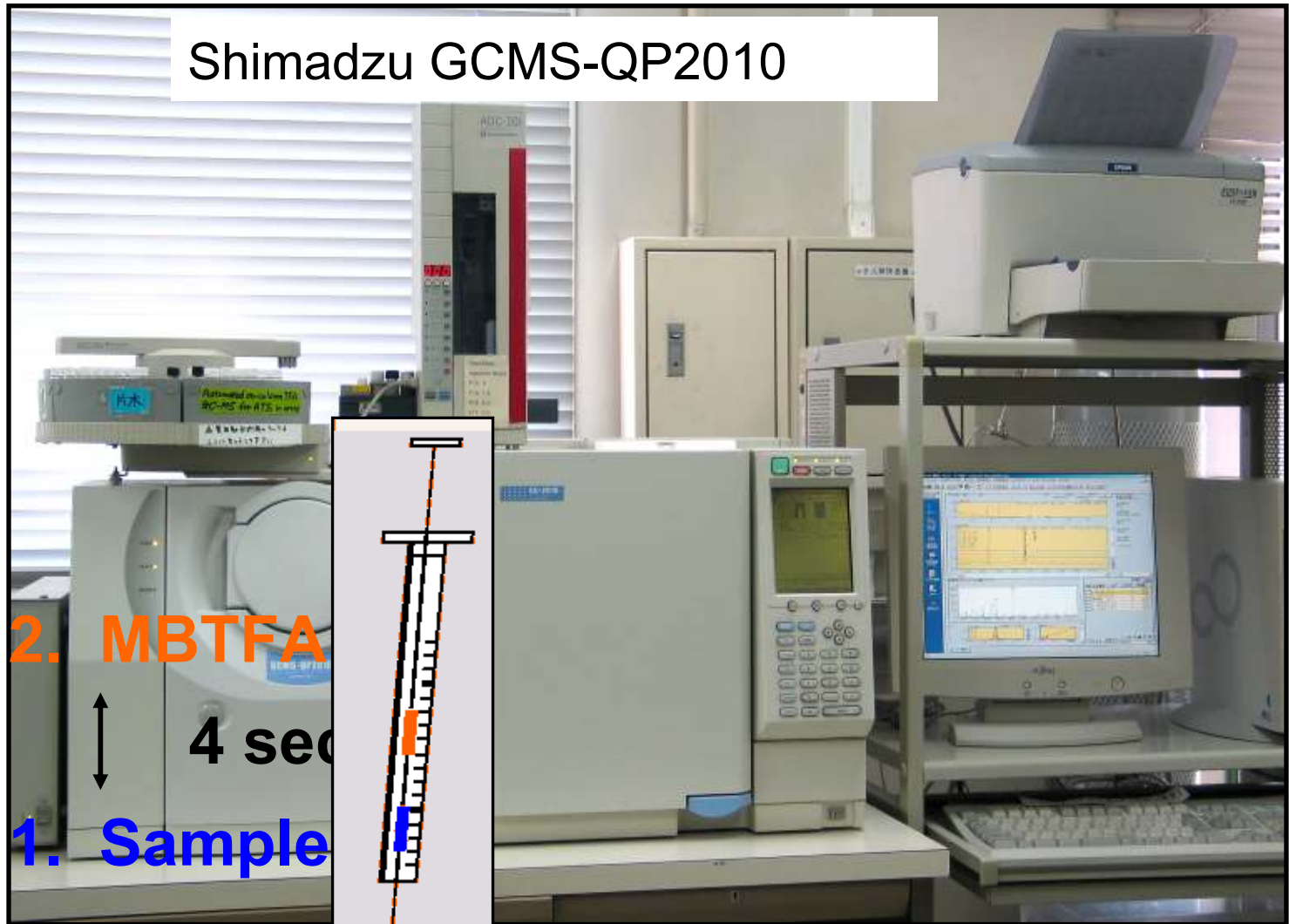


Chromatography

Two-shot auto-injector for On-column derivatization GC-MS for ATS

Forensic Analysis

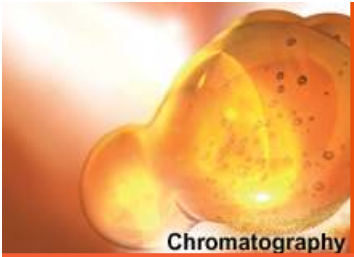
Shimadzu GCMS-QP2010



2. MBTFA
4 sec
1. Sample



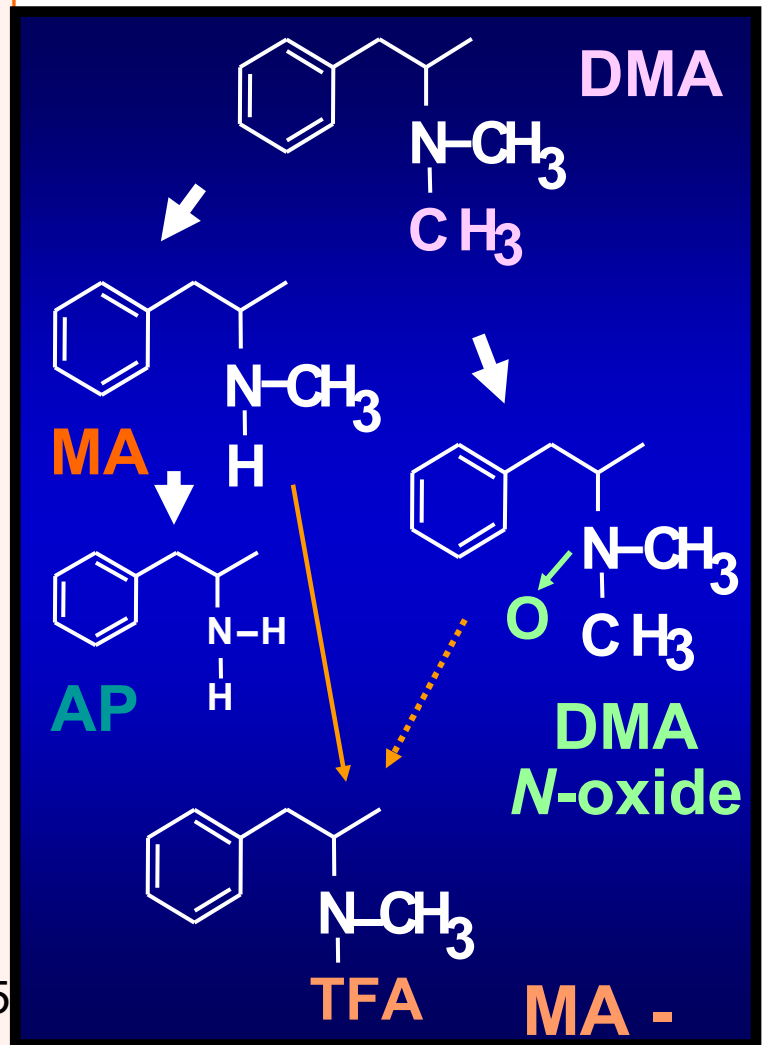
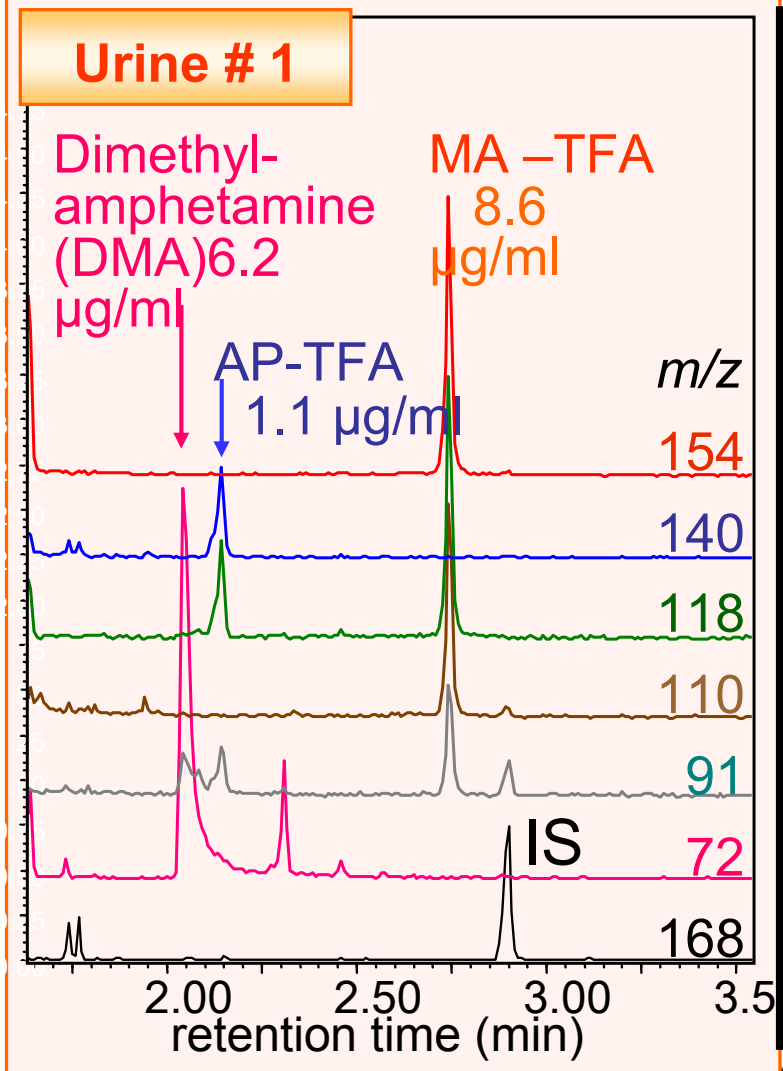
Solutions for Science



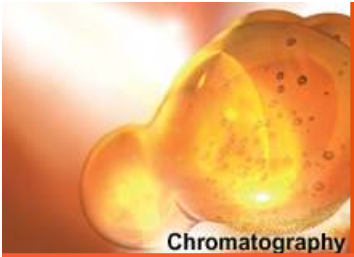
Chromatography

Fully-automated on-column-TFA GC-MS of urine samples

Forensic Analysis

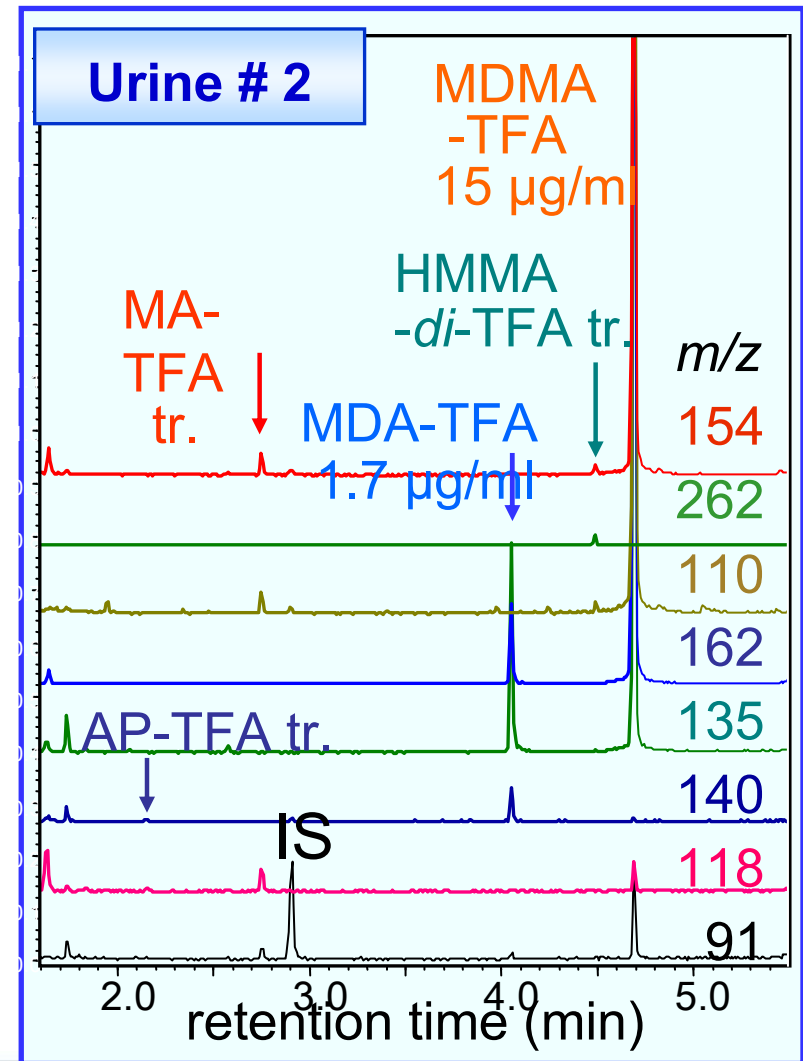
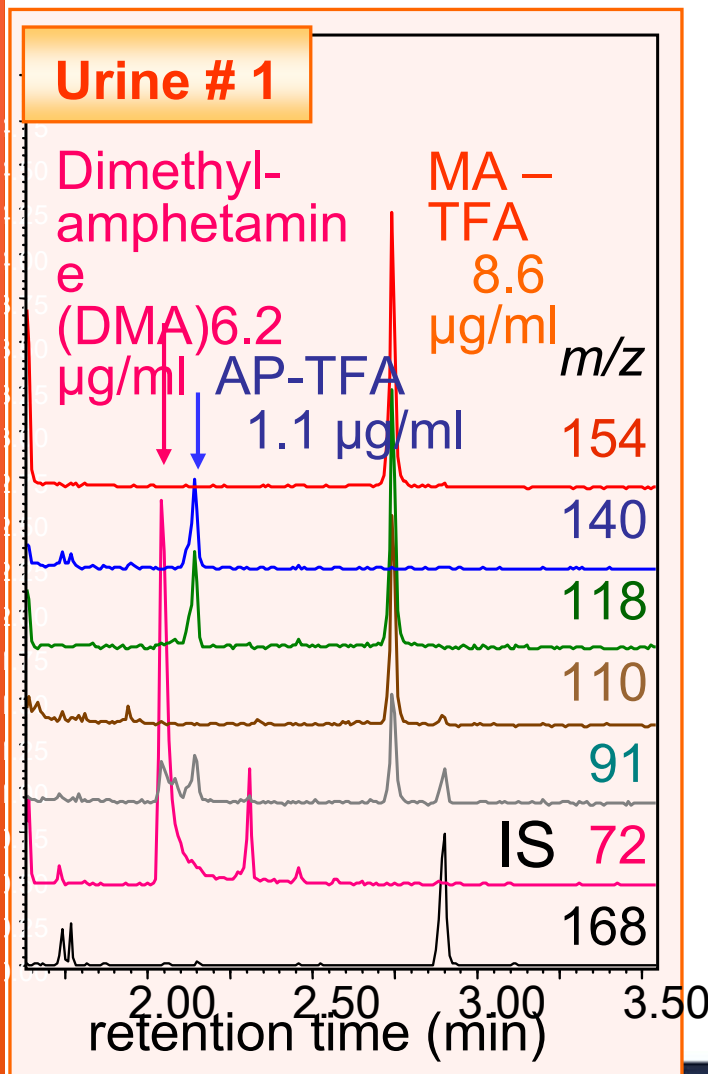


Solutions for Science TFA
DB-5, 30 m x 0.32 mm, 120-230°C (+10°C/min)



Fully-automated on-column-TFA GC-MS of urine samples

Forensic Analysis



SHIMADZU

Solutions for Science

DB-5, 30 m x 0.32 mm, 120-230°C (+10°C/min)