



Figure 1-17 Measuring exhaust gases from test vehicle

Table 1-4 Specs of dilution apparatus for diesel vehicle exhaust gas measurement

Apparatus	Full dilution tunnel
Effective length (mm)	4,572
Effective diameter (mm)	457.2
Surface area (m ²)	4.3709
Flow (m ³ /min)	60, 40, 20, 10
Pre-filter	85% to 90% (colorimetric assay)
Fine filter	99.97%



Figure 1-18 Exhaust gas/PM measurement apparatus: full dilution tunnel and part of PM collection filter



Figure 1-19 CO, HC, NO_x, CO₂ measurement apparatus: exhaust gas analysis system



Figure 1-20 Weighing the particulate matter collected (weighing chamber)



Figure 1-21 Collecting nonregulated substances
BYPASS LINE



Figure 1-22 Gas chromatography

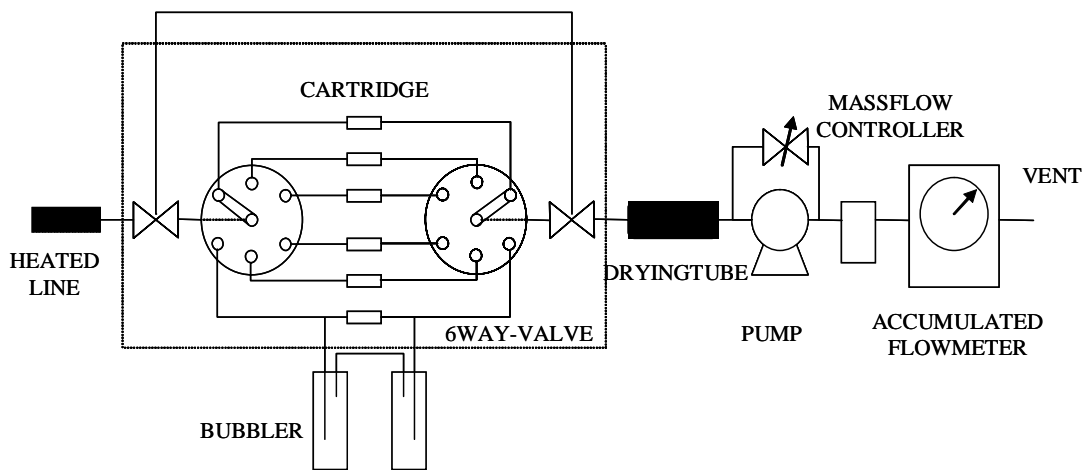


Figure 1-23 Gas flow channels in aldehyde collector

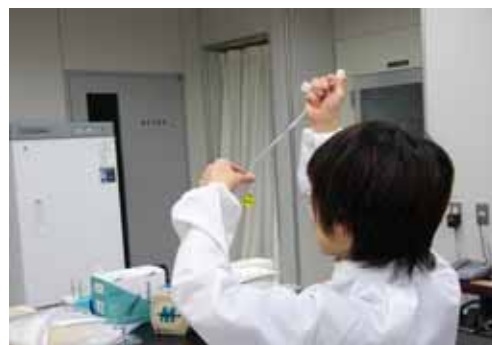
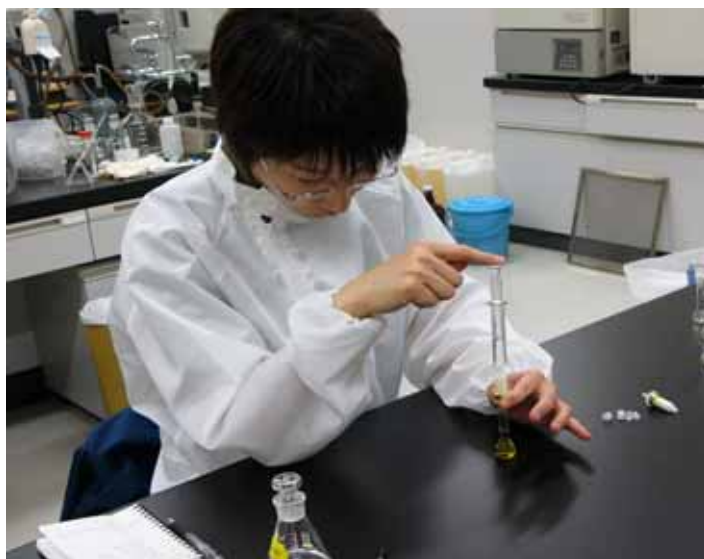


Figure 1-24
Extracting the aldehydes collected

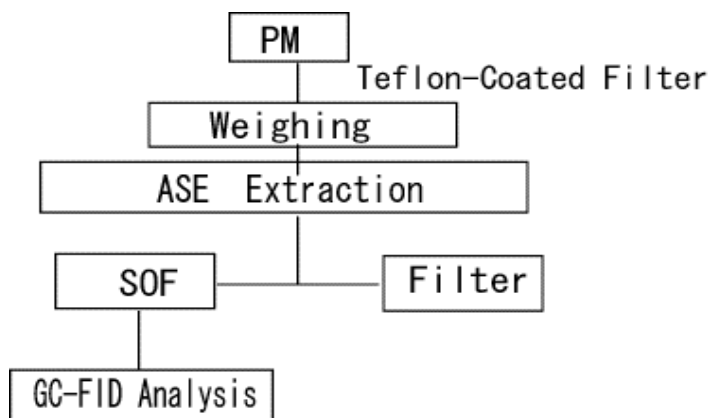


Figure 1-25 Procedure for PM separation measurement

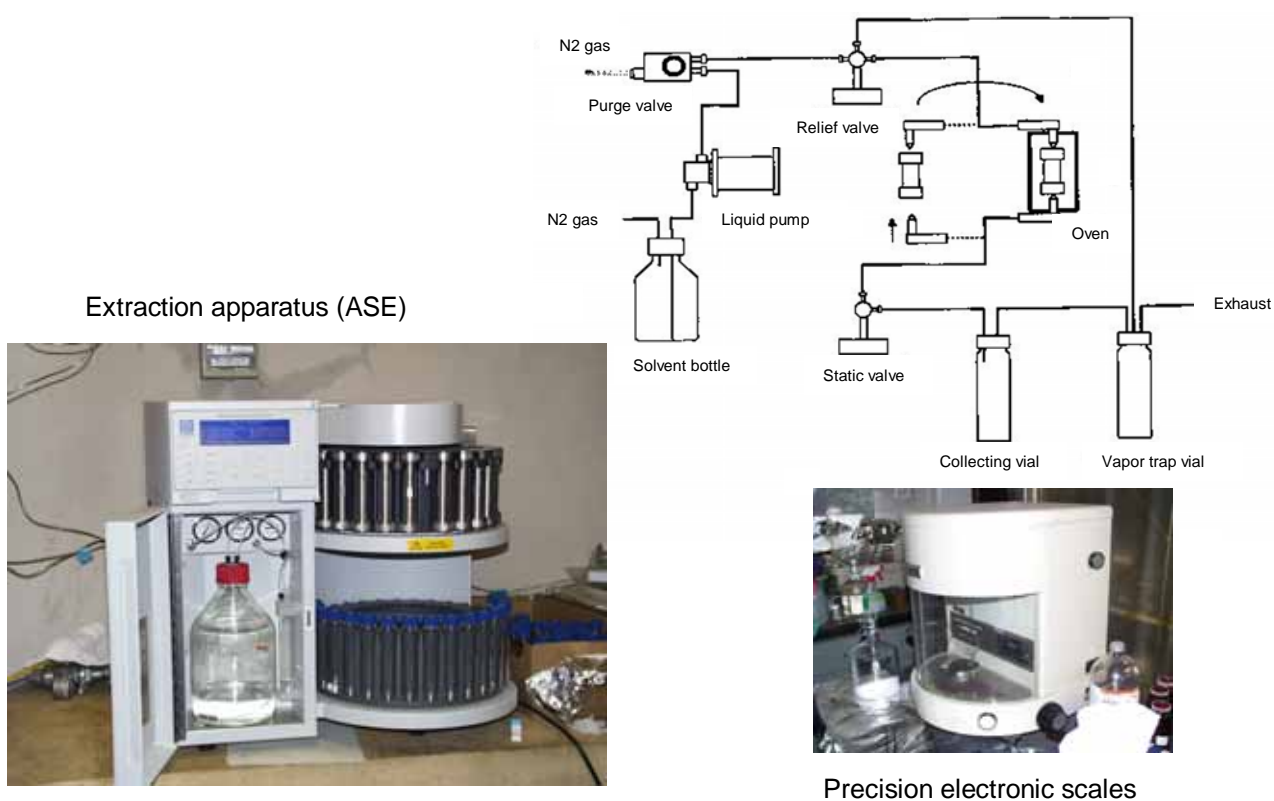


Figure 1-26 Apparatus for accelerated solvent extraction of SOF from PM

Table 1-5 Gas chromatography conditions for SOF and fuels

Apparatus	Shimadzu GC-7AG
Column	Shimadzu CB P-1 (OV-1 equivalent) 0.2 mm dia. x 25 m
Carrier gas flow	He 1 ml/min (ordinary temperature)
Temperature program	70°C (2 min), then temperature raised by 8°C/min to 300°C
Detector/temperature	FID at 320°C
Specimen introduction method	Splitless injection



Figure 1-27 Mixing the blends of BDF and diesel fuel



Figure 1-28 Filling the test fuel tank with a BDF and diesel fuel blend

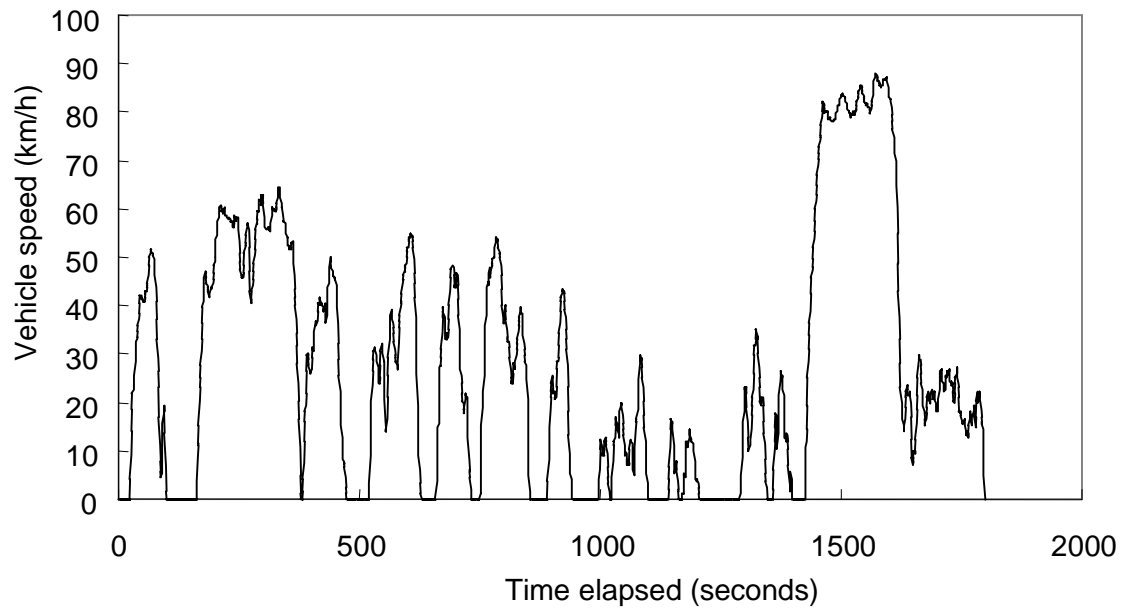


Figure 1-29 JE05 mode exhaust gas testing
(both hot start and cold start tests performed)

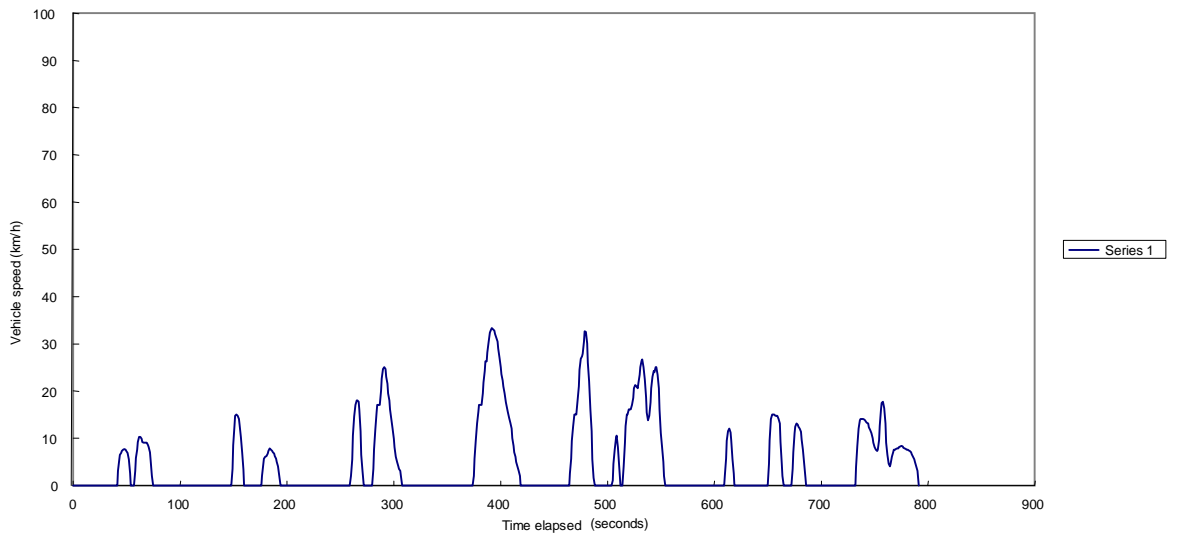


Figure 1-30 Congested traffic mode exhaust gas testing (hot start)