

## Gas Chromatography

### GC-MSD with PAL3 RTC120 Autosampler



**Brand :** Agilent Technology

**Model:** GC7890B, MSD5977B, PAL3 RTC120 Autosampler

**Custodian :** Sirichai Kositarat

**Location :** K638 Room, 6<sup>th</sup> Floor, Chaloeprakiet Building, Phyathai Campus

#### GC-MSD-PAL3

Description	Specification
PAL3 RTC120 Auto Sampler	<b>Robotic Tool Change (RTC)</b> For Liquid injection, headspace and SPME <ul style="list-style-type: none"><li>• Liquid injection: Fast liquid injection minimizes discrimination and supports syringe volumes from 1.2 <math>\mu</math>L up to 10,000 <math>\mu</math>L.</li><li>• Headspace injection: Capabilities include temperature control from 40 °C to 150 °C with magnetic vial transport for 2 mL, 10 mL, and 20 mL vials. Available in 1 mL, 2.5 mL, and 5 mL syringes flushed with inert gas.</li><li>• Solid Phase Micro-Extraction (SPME) injection: Reduces sample preparation time and eliminates the need for large volumes of extraction solvents. A variety of SPME fibers are available (10 mm or 20 mm lengths), along with a Fiber Conditioning Module</li><li>• 2 ml Sample vial up to 150 samples vial with 4x10 mL for injector solvent vials</li></ul>
GC 7890B Inlet	1 Injection port Split/Splitless mode for capillary column only, max split ratio 7500:1 Maximum temperature set up to 400 <sup>o</sup> C Electronic Pneumatics Control (EPC)
Oven	Temperature range +4 <sup>o</sup> C from room temperature to 450 <sup>o</sup> C Temperature program ramps up to 20 Steps Temperature program rate from 1 - 120 <sup>o</sup> C/min
MSD 5977B	El source Inert Extractor Mass range 1.6–1,050 u Ion source temperature 150–350 °C Quadrupole temperature 106–200 °C Mass filter: Heated monolithic hyperbolic quadrupole SIM/Scan: Automated SIM setup and synchronous SIM/scan operation

<b>Description</b>	<b>Specification</b>
Data Processing and Report	Software GC/MSD MassHunter software OS system on Window 10 Spectral libraries Wiley/NIST (W10N14.L)
Column	HP-5 MS UI (30m x 0.25 mm x 0.25 µm film thickness) HP-5 MS UI (60m x 0.25 mm x 0.25 µm film thickness) DB-Wax (60m x 0.25 mm x 0.25 µm film thickness) DB-1 MS UI (60m x 0.25 mm x 0.25 µm film thickness) DB-624 UI (60m x 0.25 mm x 0.25 µm film thickness)