

Carrier Gas Selector CGS-2050E

An inert gas such as helium (He) is typically used as the carrier gas in pyrolysis—gas chromatography (Py-GC). However, when using alternative carrier gases, analyzing the toxic compounds generated by pyrolysis in air becomes an important consideration for environmental pollution control. Furthermore, various reaction gases are used in basic research on gasphase catalytic reactions using catalysts. The new Carrier Gas Selector (CGS-2050E) retains the core performance of the previous model while offering enhanced operability and ease of use.

CGS-2050E Features

1. Versatile for chemical reaction and thermal oxidation testing

Chemical reaction tests in a heated furnace with any carrier gas, as well as thermal oxidation tests under an oxygen atmosphere, can be performed. Furthermore, by using the Selective Sampler for evolved gas analysis, gases evolved at any temperature zone using various carrier gases can be selectively introduced into a GC column for effective separation and analysis.

2. Instantaneous switching of carrier gases

The flow path is designed with minimal dead space (0.5 mL or less), allowing rapid and seamless switching between carrier gases.

3. Automatic control

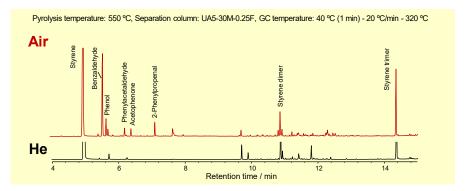
It can be operated in conjunction with the Multi-Shot Pyrolyzer (EGA/PY-3030D), Auto-Shot Sampler, MicroJet Cryo-Trap, and Selective Sampler.



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Application

The results of Py-GC/MS measurements of polystyrene (PS) under He and air atmospheres are shown below. Under air atmosphere, various oxides, such as Benzaldehyde and Phenol, were observed.



Specifications

Usable carrier gases	Two gases are selected from He, N ₂ , Air, O ₂ , etc. (one must be an inert gas such as He or N ₂)
Power requirement	100 - 240 VAC, 40VA (support for a wide range of power voltages)
Supported pyrolyzer	Multi-Shot Pyrolyzer (EGA/PY-3030D)
Supported GC model	Agilent 8890/8860GC, PerkinElmer Clarus 690, SCION 456, Shimadzu GC-2030/2010, Thermo Fisher TRACE 1610/1600/1310/1300 GC For other instruments, please contact your local distributor or our company.
Carrier gas switching	Flow path switching by solenoid valve. MANUAL mode: Manual switching. AUTO mode: Automatic control via Multi-Shot Pyrolyzer software.



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