NEW ! Optional accessory for Tandem and Single μ-Reactors

Medium Pressure Flow controller; MP-3050FC

MAJOR FEATURES

1) New flow control system allows online GC analysis of products formed by catalytic reaction under 1 MPa.

2) Peak retention times on chromatogram are unaffected by pressure (see figure on right).

   Employing deactivated restrictor tube and Open Split interface, retention times of peaks are independent of pressure.

3) Currently used GC, separation column, and detector can be used without modifications.

4) Easily upgradable from Tandem and Single μ-Reactors.

Online analysis of medium pressure catalytic reaction
(Conversion from ethanol to ethylene)

Retention times greatly altered by pressure  Retention times unaffected by pressure

Conventional

Ethylene

0.07 MPa

0.2 MPa

0.4 MPa

0.5 MPa

New

Ethylene

0.5 MPa

1 MPa

Catalyst: H-ZSM-5 at 250°C, carrier gas: He (100 mL/min)
Split ratio: 1:100, sample: ethanol (1 µL), detector: FID
Column: UA1-30M-2.0F, GC oven: 30 (4 min)-@20/min-230°C

Pneumatics of MP Tandem μ-Reactor system

Specifications

- Reactor pressure control: 0.3~0.98 MPa (Constant pressure control using GC’s column head pressure controller)
- Column head pressure display: digital
- Supported gases: Helium, hydrogen, nitrogen, etc.
- Supported GC, GC/MS: System as recommended for μ-Reactors
- Standard accessories: Deactivated restrictor tube, Open Split interface, etc.
- Power: 100 / 240 VAC, 50W

User preparation

- Column nut for your GC injector, ferrule (id. 0.5 mm)

Specifications subject to change.

http://www.frontier-lab.com/