

[On-line Analysis of Catalytic Reaction Products Using a High-Pressure Tandem Micro-reactor GC/MS](#)

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Abstract:

When a GC/MS system is coupled with a pressurized reactor, the separation efficiency and the retention time are directly affected by the reactor pressure. To keep the GC column flow rate constant irrespective of the reaction pressure, a restrictor capillary tube and an open split interface are attached between the GC injection port and the head of a GC separation column. The capability of the attached modules is demonstrated for the on-line GC/MS analysis of catalytic reaction products of a bio-oil model sample (guaiacol), produced under a pressure of 1 to 3 MPa.

\* Excerpted from online journal website (Click the title)

Frontier Labs Products used:

Tandem  $\mu$ -Reactor (RX-3050TR), UA<sup>+</sup>-5, MJT-1030E