

# Micro HPLC

High performance liquid chromatography (HPLC)

. Micro chip

chip HPLC

가 column

monolith

HPLC가 chip

Micro Chemical Process Technology

. Micro chip HPLC

가

가

micro chip

connector가

connector 40 Mpa

HPLC

. Connector가 micro chip

Micro HPLC microchannel column

‘II’

microchannel column

Fig. 1

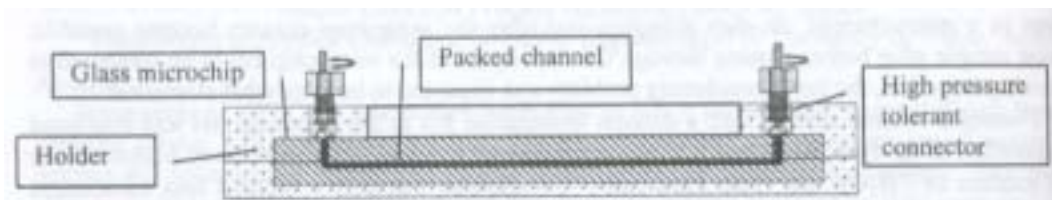


Fig. 1. ‘II’ structure On-CHIP Column

'II' microchannel column 가 pyrene fluorene  
 . Mobile phase = 7:3  
 mixture of CH<sub>3</sub>CN and H<sub>2</sub>O; Flow rate = 1.0 μL/min; Detection wavelength = 260  
 nm; Injection volume = 60 nL; Temperature = room temperature. On-line  
 Micro HPLC UV  
 chromatogram Fig. 2  
 1700 (3400/m) HPLC chromatogram  
 peak tailing 가

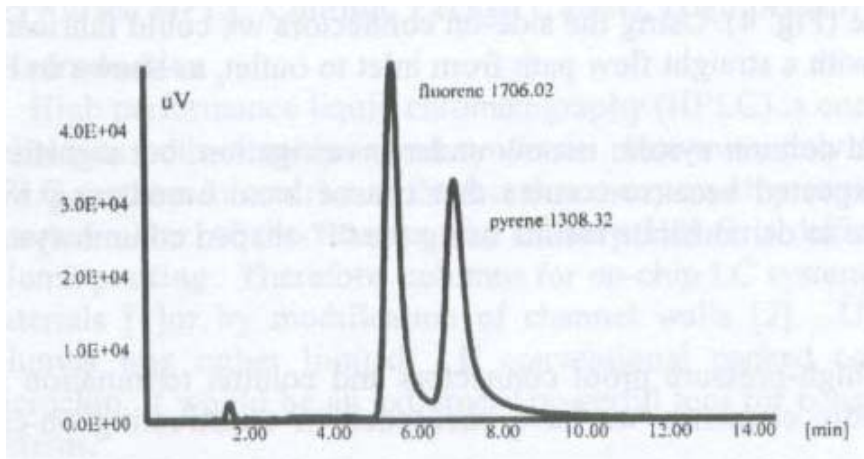


Fig. 2. Chromatogram of 'II' Structure Column, Separation of Fluorene and Pyrene

microchannel column monolith frit  
 frit microchannel  
 Microchannel column frit Micro HPLC 가  
 tar R106 R3 . Mobile

phase = 8:2 mixture of CH<sub>3</sub>CN and H<sub>2</sub>O; Flow rate = 3.0 μL/min; Detector = thermal lens microscope with excitation beam of 532 nm and probe beam of 670 nm; Injection volume = 60 nL; Temperature = room temperature.

chromatogram Fig. 3

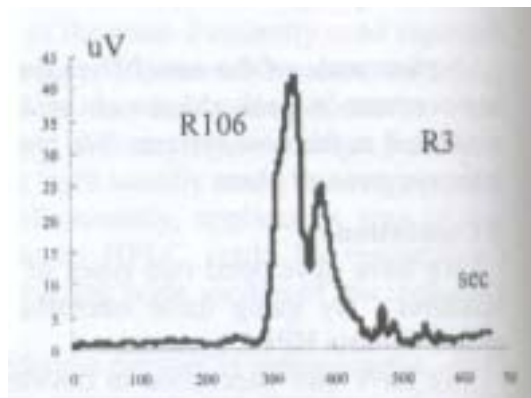


Fig. 3. Chromatogram of ON-CHIP Detection

dead volume side connector Fig. 4  
 Side connector 'I' microchannel  
 column Fig. 5 가 coner  
 peak 'II' 'I'

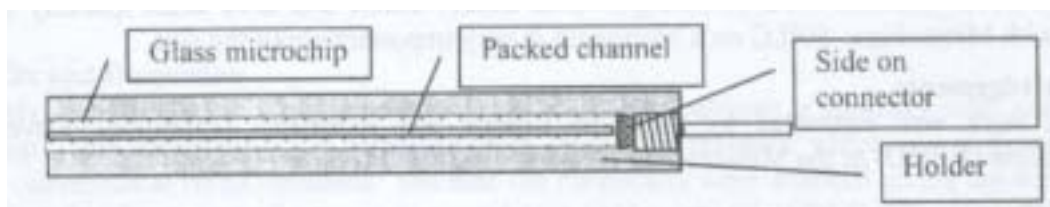


Fig. 4. 'I' Structure ON-CHIP Column with Side-on Connector

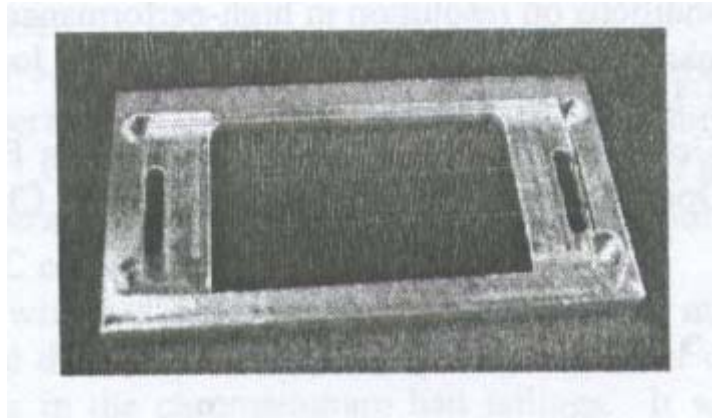


Fig. 5. Picture of Microchip and Holder for Side-on Connector

microfluidic  
column  
Micro HPLC  
chip  
Micro HPLC  
micro chip