

HPLC

updated 2022-07

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HPLC

Solvent reservoirs



Control panel

Sample Tray

Console

Flow control

Column

Detector

To waste bottle

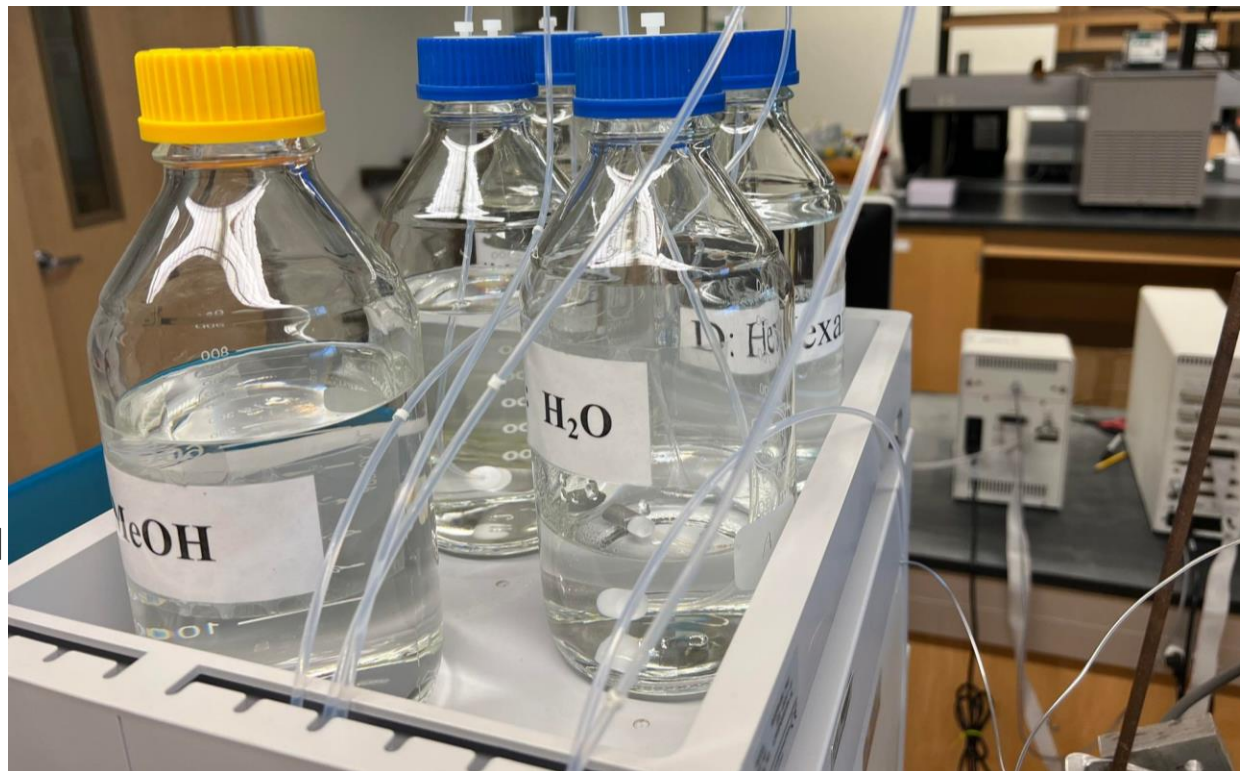
HPLC Sample Criterium

- All samples must be:
 - a) soluble in the elution solvent that you will use
 - b) previously passed through a column or short plug of silica. This means that crude reaction mixtures are not acceptable for HPLC runs. Extremely polar or insoluble impurities will become trapped on the column and cause blockage.
 - c) The compound of interest must have some absorbance in the UV-range to be noticed by the detector



HPLC Solvents

- Only use HPLC compatible solvents
- Check before submitting your sample that there is enough solvent for your analyses!
 - At 1 mL/min a full bottle will last ~13 hours
- Purge the line with isopropanol before submitting samples
- **Chiral columns are not compatible with CH_2Cl_2**
- The **Achiral** preparatory column is compatible with standard solvents used in flash chromatography (CH_2Cl_2 , EtOAc, MeOH, and hexanes)



HPLC



Use to purge,
monitor system



Alternate flow
between columns



Sample
tray



Achiral
Preparatory
column



Chiral
Analytical
column



HPLC Chiral Columns

- CH₂Cl₂ will ruin Chiral columns (prompting replacement)

CHIRALPAK IC, 5 micron, 4.6 mm ID x 250 mm LN Analytical column Request Again

Requested by Quang L. More

Request

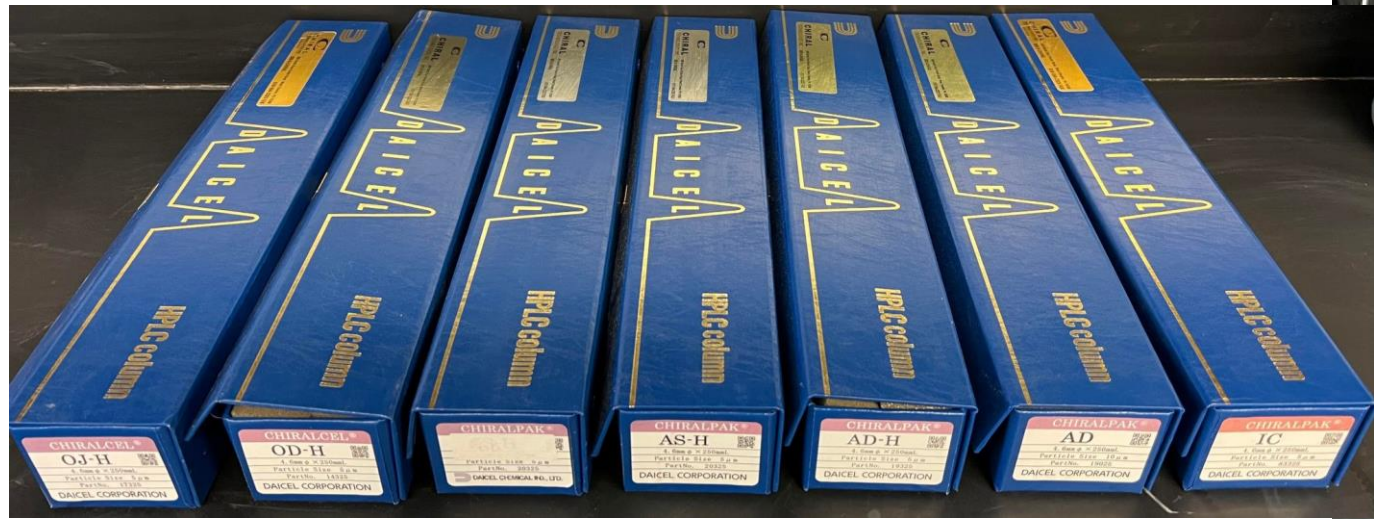
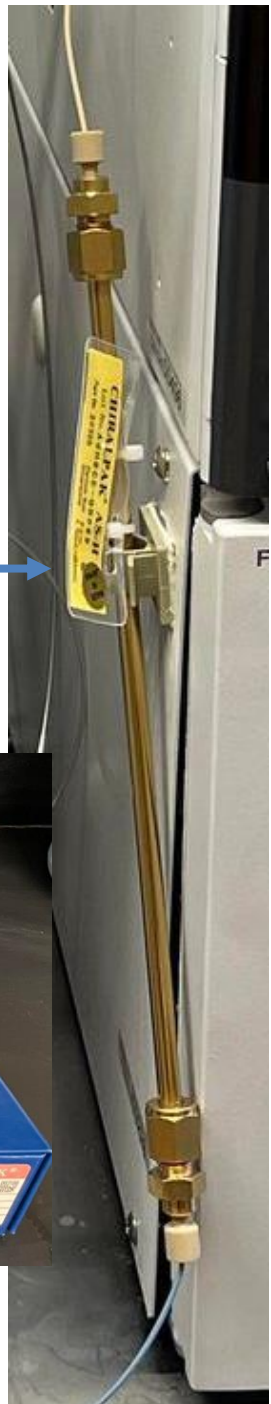
Vendor: Fisher Scientific

Catalog #: NC9560276

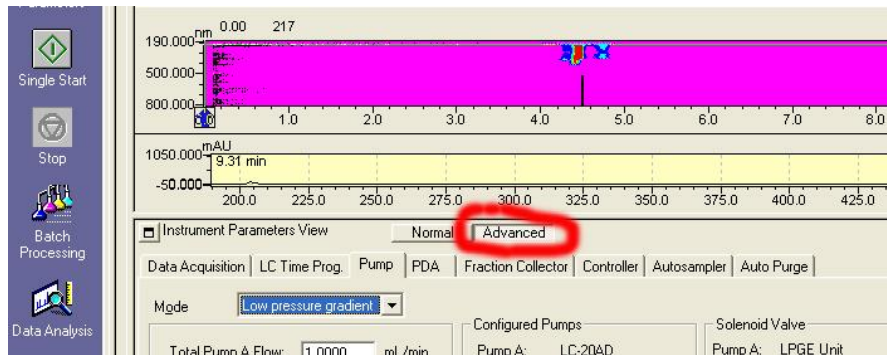
Unit Size	Qty
EA	1

Unit Price: 1,895.00 Total: **\$1,895.00**

Tag indicates direction of flow



For additional details about the HPLC and related software, please see the detailed group handout or receive instrument training



Instrument Parameters View Normal Advanced

Data Acquisition LC Time Prog. Pump PDA Fraction Collector Controller Autosampler Auto Purge

Filename: RT:0.000 min

Time	Module	Action	Value
0.01	Pumps	C. Conc	30
0.01	Pumps	D. Conc	70
40.00	Controller	Stop	
0.00			
5.00			
6.00			
7.00			
8.00			
9.00			
10.00			
11.00			
12.00			

Type in the solvent ratio for your eluent.

Type in the analysis time.

Thank you!