

## Using two HPLC columns together in a tandem separation for polar and non polar retention – Tips & Suggestions

### Use two columns and two modes of HPLC together for excellent results.

If you connect the Cogent Bidentate C18™ & Cogent Diamond Hydride™ HPLC columns in parallel, but use the same mobile phase program on both columns, it will be difficult to have both Reversed Phase and **Aqueous Normal Phase** ANP HPLC modes operating simultaneously, therefore you will not get optimal results. A gradient starting at high organic may work well for the Cogent Diamond Hydride™ HPLC column but only very hydrophobic compounds will retain on the Cogent Bidentate C18™ HPLC column.

**However**, the attached poster, linked below, describes a more sophisticated system where retention of both hydrophobic and hydrophilic analytes can be retained using both columns. The set-up and procedure are described in detail.

Metabolomics studies involve not only known and predicted metabolites but also of a wide variety of ones that had not previously been predicted to exist. Due to the significant complexity of any metabolome, both the Bidentate C18™ and Diamond Hydride™ together give a much more complete picture than when used individually.

*NOTE: You need appropriate instrumentation to get the best results. Both columns are available together: [Metabolomics Kit Product Page](#)*

**MICROSOLV** TECHNOLOGY CORPORATION  
HPLC Columns and Chromatography Accessories



**Attachment:**

**University of Melbourne Poster** [Download File](#)