

## Type of gradient to use for analysis of hydrophilic and hydrophobic molecules in the same HPLC or LCMS run – Tips & Suggestions

Some of the usefulness of Cogent TYPE-C Silica™ columns is that you have options in selecting a “gradient direction” with the same mobile phase composition.

*Definition: Gradient direction is the gradient decreases the aqueous component and the “inverse direction” is starting with low amount of aqueous and increasing it.*

Try both a typical Reversed Phase gradient “direction” (from 80% to 20% aqueous) and then an Aqueous Normal Phase ANP gradient “inverse direction” (from 20% to 80% aqueous) as an initial screening process. From the preliminary results you get from both of these fast runs, you can determine which mode or gradient direction is most likely to produce the best separation.

Once the “direction” or type of method (RP or ANP) has been selected, then the gradient can be modified to reach the desired retention and separation of the components in your mixture.



Printed from the Chrom Resource Center

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 07-22-2024