

## Fosetyl Aluminum Analysis with a Bidentate C18 Column - Tips and Suggestions

### Reversed Phase or Aqueous Normal Phase ANP method tips:

You can use the [Cogent Bidentate C18™](#) column in Reversed Phase (RP) with a high water content method. According to a 2014 third-party research article, if the analysis is done by reversed phase an ion pair agent is recommended to increase retention and reduce peak tailing. Here, 8 mM sodium sulfate was used in a pH 4.3 phosphate buffer mobile phase. Cogent™ columns work well with ion pair agents and will not be degraded. Also, the Bidentate C18™ is more hydrophobic than other columns on the market due to the Cogent TYPE-C Silica™ surface. Therefore you may obtain higher retention for this highly polar analyte.

As for detection methods, it was reported that direct detection with a UV detector can be achieved by the addition of a KOH solution to the sample. In this case, a narrow absorbance band was observed with  $\lambda_{max}$  at 200 nm. Indirect detection could also be used; in this case, you add a UV absorbing compound in the mobile phase and obtain a negative peak.

*NOTE: If you try the method by Aqueous Normal Phase ANP, we suggest the [Cogent Diamond Hydride™](#) column. You will want to omit the ion pair agent in this case and use a high percent of acetonitrile in the mobile phase to obtain retention.*

