



Using inorganic buffers for HPLC UV analysis of citric acid - Tips & Suggestions

If you must use UV detection, the best option would be to use a phosphate **buffer** that has a pH slightly less than 7.0 (~6.6 or 6.7 should be suitable). You can use a combination of mono and dibasic phosphates to achieve this. *You want citric acid to be completely ionized to maximize retention in the ANP mode.*

There are a few precautions to consider with phosphates. Some data has suggested that use of phosphates may alter the column chemistry so if they are used, the column should be thereafter dedicated to that application. Also, it is important to know that the column must be only used with UV and **not** in any LC-MS application because phosphates are incompatible with MS.

NOTE: If you can use LCMS, the ideal choice would be a mobile phase based on ammonium acetate or formate, such as the one described in the following application note: [Citric Acid Application Note](#)

[Cogent Diamond Hydride HPLC Column Ordering Information](#)