

Missing peaks using UV detection in HPLC methods - Tech Information

If you do not see a peak for your analyte with UV detection in HPLC, it could mean any number of things.

The compound could be poorly retained and hence obscured by the solvent front peak. Conversely, it could be strongly retained and not eluted during the run.

A sample prep issue could also be possible; you need to know for sure that the compound is actually present in solution and did not precipitate out due to Insolubility.

Last but not least, the inherent UV absorption characteristics of the compound need to be considered. Some compounds cannot be detected by UV absorption due to lack of chromophores. Others may exhibit low UV absorption and hence can only be detected at high concentration and low wavelengths. In these cases, other detection methods are warranted, such as mass spectrometry (MS), refractive index (RI), corona aerosol detection (CAD), or evaporative light scattering detection (ELSD).

