

Adsorption can happen quickly in an autosampler vial – Tips & Suggestions

Adsorption in Borosilicate Glass Vials is Time Dependent. But can be Fast.

We have shown from previous experiments how concentration of certain analytes can change due to being partially adsorbed to glass surfaces over time. This is an indicator of potential problems for the laboratory for many other analytes as well.

In this experiment, a sample was taken in small timed increments to display the magnitude of potential sample loss due to autosampler vial surface adsorption using 5 ppm cetylpyridinium chloride, in both a standard market leading “Certified” vial made with Type-33 glass and compared it to the RSA™ (*Reduced Surface Activity*) Vials.

In the chromatograms below, you can observe significant peak area diminishing in the standard HPLC vials (*left*), in just a matter of fifteen minutes from the immediate prep and analysis, versus the peak area in RSA™ Vials (*right*).

