

# HCl SORBENT TRAPS



HCl sorbent traps promise to provide a quick, easy, and effective alternative to FTIR and Method 26A:

- The traps are sampled using the same equipment and method as a pair of Method 30B sorbent traps. Isokinetic sampling may be necessary at some sites as well as slightly longer sampling times at stack locations where the HCl concentration falls below 0.5 ppmv
- It is possible to determine flue gas HCl concentrations as low as 0.1 ppmv
- An ion chromatograph is required to analyze the sorbent material solution after sampling. Each trap section is dissolved into 10 mL of solution, thanks to a specially developed extraction procedure. Low dilution means high chloride concentration, which in turn means lower sample volume requirements!
- Analysis can be performed ON-SITE before the stack testing team demobilizes. That means minimal waiting time to get the results back from the lab and you know you have passed before the testing team leaves the site



# Simplifying HCl

More exciting breakthroughs are taking place within the busy confines of the Ohio Lumex laboratory! Our researchers along with EERC have been working hard to fine-tune the recently developed **HCl sorbent traps** and analytical hardware and analysis procedure. We have also begun conducting a series of experiments to satisfy EPA criteria for eventual method promulgation. The road ahead is long and arduous, but the reward is phenomenal!

We are now at the stage where a detailed study must be conducted to ensure robustness and validity of the method. A series of experiments have been designed in order to quantify and understand every aspect of the sampling and analysis method.

Some of the details we are investigating include (but are not limited to): precision, bias, ruggedness, spike effectiveness, uncertainty quantification, storage stability, matrix interference, and most importantly, comparison with Method 26A and FTIR. As we proceed, it is likely that more experiments will need to be designed and conducted, and modifications made to the method - until all method promulgation criteria are satisfied.

We here at Ohio Lumex are always willing to take part in collaborative efforts to create and discover new ways to solve the problems faced by our customers. That said, we invite our friends in the industry to take part in this study. Whenever possible, we would like to have our sorbent traps sampled alongside Method 26, Method 26A and/or FTIR, in order to create a comprehensive and detailed comparison to these existing methods. Let us know if you are interested in joining us on this fascinating journey of discovery!



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