

Applied Rigaku Technologies (Austin, Texas) introduces a new analytical technique for EDXRF analyzing wastewater samples to the PPB range utilizing Rigaku's patented thin film disk UltraCarry®. The proprietary UltraCarry design consists of two sections: a central hydrophilic section surrounded by a hydrophobic ring. 200uL of aqueous sample is used to spot the central section. As the water dries, the outer hydrophobic ring causes the central section to dry in an even single layer, and the sample is ready for analysis.

1. Pipette 200 uL onto the UltraCarry disk.
2. Dry.
3. Analyze the sample using the Rigaku NEX CG EDXRF spectrometer.

The NEX CG analyzer is equipped with Rigaku's renowned FP program, which makes use of the Rigaku Profile Fitting algorithm for optimum deconvolution of spectral peak overlaps, as well as SQX scattering FP using advanced matrix modeling for superior FP analysis.

Using the UltraCarry technique and the RPF-SQX wastewater template with the NEX CG, analysts can achieve aqueous LLDs comparable to AA and ICP, without the need for digestion or chemicals, thus allowing for a simpler, faster analysis. The Rigaku NEX CG and UltraCarry techniques are powerful enough for advanced XRF users, yet simple enough for non-technical operators.