

# IC Application Note No. U-24

**Title:** Vanadium speciation applying Ion Chromatography with UV/VIS detection

**Summary:** Determination of vanadium(IV) and vanadium(V) in Benfield solution using anion chromatography with UV detection.

**Sample:** Benfield solution

**Sample Preparation:** Dilution 1:1000 with eluent

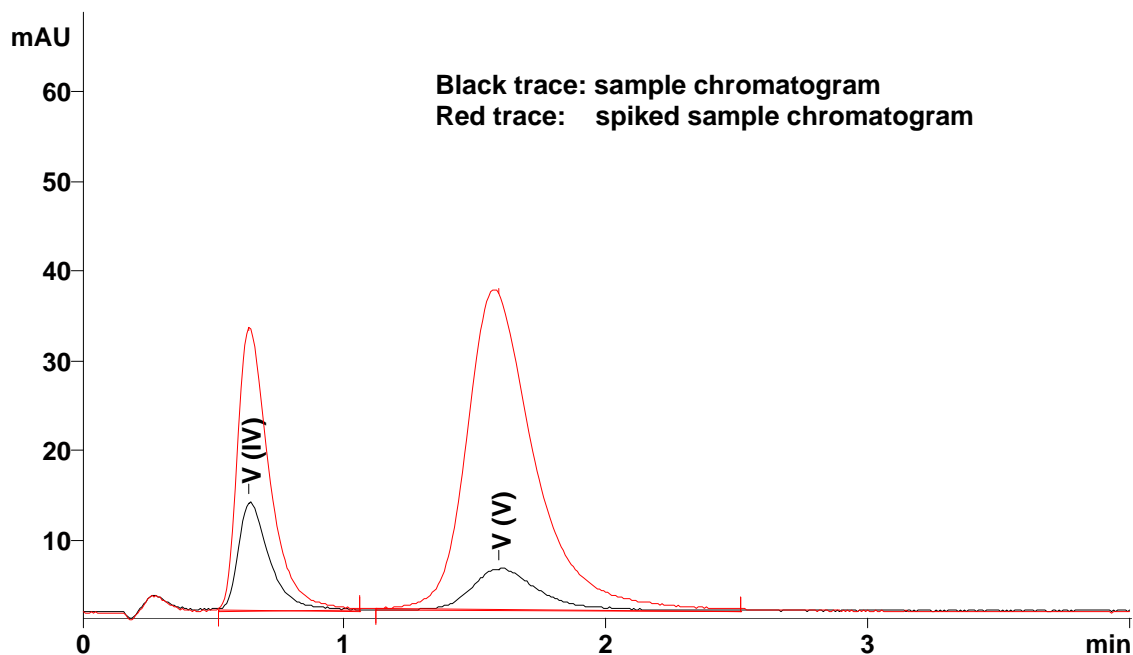
**Column:** 2 x 6.1006.500 Metrosep A Supp 4/5 Guard

**Wavelength:** 282 nm

**Eluent:** 12 mmol/L sodium hydrogen carbonate  
4 mmol/L sodium carbonate  
20 mmol/L EDTA

**Flow:** 0.7 mL/min

**Injection Volume:** 20  $\mu$ L



<b>Results:</b>	Vanadium(IV)	Vanadium(V)
Sample (mg/L)	6.017	0.701
Spike (mg/L)	10.0	5.0
Recovery (%)	96	98