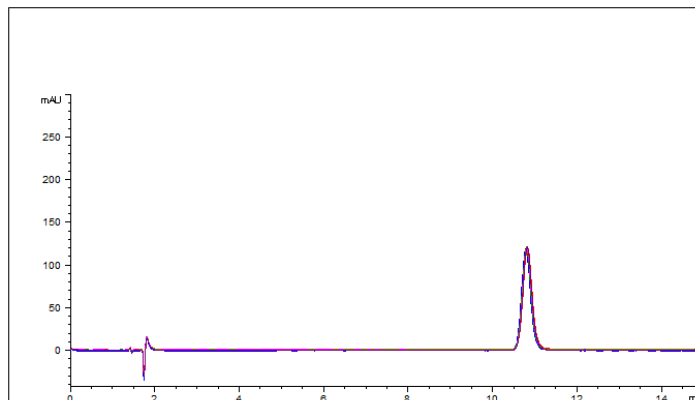


## Elemental Sulfur analyzed with HPLC – AppNote

### Analyzing elemental Sulfur content

A simple and reproducible method has been developed for analysis of elemental Sulfur. The data below, (**an overlay of 5 chromatograms**) illustrates how the compound can be adequately retained in HPLC with good precision and peak shapes using this straightforward method.



**Peak:** Sulfur

### Method Conditions:

**Column:** Cogent Bidentate C18™, 4µm, 100Å.

**Catalog No.:** 40018-15P

**Dimensions:** 4.6 mm x 150 mm

**Mobile Phase:** (90:10) Acetonitrile / DI water with 0.1% formic acid.

**Injection vol.:** 3 µL

**Flow rate:** 1.0 mL / minute

**Detection:** UV @ 263 nm

**Sample Preparation:** 0.5 mg/mL Sulfur (7704-34-9) in DCM

**%RSD:** <0.1%

**t<sub>0</sub>:** 1.7 minutes

**K':** 5.2

**Notes:** This method could be used for determination of elemental Sulphur in soils, using DCM as the extracting solvent.

**Note 2:** Capacity was determined using the following equation:  $k = (t_R - t_0) / t_0$

$t_R$  = Retention time of an analyte peak

$t_0$  = Retention time of non-retained peak