

Organic Application Note

Sulfur in Oils

Accessories

529-204 Crucibles, 502-301 Tungsten Trioxide or 502-321 COM-CAT™ accelerator, eye droppers, or disposable pipettes

Sample Weight 0.09 to 0.12 g

Calibration Standard

NIST or other LECO suitable material

Furnace Temperature 1350°C

Analysis Time 60 to 300 seconds (Sulfur)

Comparator Level 1% (Sulfur)

Notes

- If the sample soots (indicated by a darkening of the anhydrene in the primary anhydrene tube), then a high bias of the results is possible. To overcome sooting, add ~3 g of 501-426 COM-AID on top of the ~1 g of Tungsten Trioxide to cover the sample.
- 502-321 COM-CAT can be substituted for 502-301 Tungsten Trioxide.

Procedure

1. Prepare instrument as outlined in the operator manual.
2. Condition the instrument by analyzing a few coal samples, until the readings are stable.
3. Calibrate the system by analyzing at least three replicates of the standard used, using the following procedure.
 - a. Using an eyedropper, weigh ~0.1 g of sample into a 529-204 Crucible containing ~1 g 502-301 Tungsten Trioxide or 502-321 COM-CAT.
 - b. Click the mouse on Analyze. When the "load furnace" message appears on screen, slide the sample into the combustion tube.
4. Analyze unknown samples following steps 3a and 3b.

Typical Results

Sample	Weight (g)	% Sulfur	Weight (g)	% Sulfur
501-099 LECO	0.1137	4.03	0.1137	3.98
Paraffin Oil	0.1159	4.04	0.1167	4.04
	0.1020	4.02	0.1189	4.06
	0.1049	4.07		Mean = 4.04
	0.1165	4.03		Std. Dev. = 0.03
	0.1185	4.10		
	0.1138	4.00		



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