

Organic Application Note

Carbon, Hydrogen, and Nitrogen in Coal[®]

Accessories 502-186 Tin Foil Cup

Calibration Standard

NIST or other suitable standard, such as LECO Coal Standard

Sample Weight ~0.09 to 0.1 g

Analysis Time 3.5 minutes

Furnace Temperature 950°C

Flow Profile

#	Oxygen Flow	Time
1	High	15
2	High	15
3	High	15
4	High	15
5	High	END

Procedure

1. Prepare the instrument by following the procedure as outlined in the operator's instruction manual (perform any required maintenance, perform leak checks, etc.).
2. Analyze gas blanks until instrument is stable. Reset the blank if necessary.
3. Analyze three to five 502-186 Tin Foil Cups containing ~0.1 g standard material and drift correct.
4. Weigh unknown sample into a 502-186 Tin Foil Cup, load into carousel and analyze.

Typical Results

Sample	% Carbon	% Hydrogen	% Nitrogen
Bituminous Coal	86.83	4.51	1.35
(med-vol)	86.78	4.52	1.35
	86.91	4.54	1.35
	86.71	4.52	1.35
	86.75	4.52	1.35
	86.87	4.52	1.33
	86.35	4.49	1.34
	86.81	4.52	1.35
	86.79	4.51	1.36
	86.88	4.50	1.35
	86.61	4.49	1.36
	86.60	4.50	1.36
Average	86.74	4.51	1.35
Std. Dev.	0.16	0.016	0.008



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