



Chromite Ore



Microwave Sample Preparation Note: 5OS-47
Applications Disk File Name: chromit.pgm, chromit2.pgm

Rev. Date: 10/99
Category: Oxides/Sulfides

Sample Type: Chromite Ore
Application Type: Acid Digestion
Vessel Type: XP-1500
Number of Vessels: 1
Reagents: Phosphoric Acid (86%),
Sulfuric Acid (96%)
Nitric Acid (70%)

Sample Weight : 0.5 gram

Step 1: chromit.pgm

<u>Acid Type</u>	<u>Volume</u>
Phosphoric	6.5 mL
Sulfuric	3.5 mL

Heating Program: Standard Control

Stage	Max. Power	% Power	Time (min.)	Pressure (psi)	Temperature (°C)	Hold (min.)
(1)	300 W	100	45:00	600	260*	30:00

*Temperature device capable of 300 °C Required

Allow the vessels to cool. Open, and add reagents as specified in Step 2. Re-seal vessels, and heat according to the heating program listed in Step 2.

Step 2: chromit2.pgm

<u>Acid Type</u>	<u>Volume</u>
Nitric	5 mL

Heating Program: Standard Control

Stage	Max. Power	% Power	Time (min.)	Pressure (psi)	Temperature (°C)	Hold (min.)
(1)	300 W	100	20:00	600	260*	15:00

*Temperature device capable of 300 °C Required

NOTE A: This procedure is a reference point for sample digestion using the CEM Microwave Sample Preparation System and may need to be modified or changed to obtain the required results on your sample.

NOTE B: The control vessel must contain the largest and most reactive sample.

NOTE C: Manual venting of CEM closed vessels should only be performed when wearing hand, eye and body protection and only when the vessel contents are at or below room temperature to avoid the potential for chemical burns. Always point the vent hole away from the operator and toward the back of a fume hood.

NOTE D: Power should be adjusted up or down with respect to the number of vessels. General guidelines are as follows: 1-2 vessels (300 W), 3-6 vessels (600 W), 7 or more vessels (1200 W).