

Mars 6TM Method Note

Microwave Digestion of Cr_2O_3 in iPrep

Procedure

Weigh 50 mg of the sample into the digestion vessel. Insert stir bar into the vessel. Add 4.5 mL of H_2SO_4 and 4 mL of HNO₃ to the vessel, then 1.5 mL of H_2O_2 (30%) dropwise. Gently swirl the mixture and wait approximately 15 minutes before closing the vessel.

Notes

This application can only be run in the iPrep vessel.

Stirring is required for complete dissolution of this sample type.

Recommended Equipment	Recommended Vessels	Reagents
MARS 6 iWave	iPrep	H ₂ SO ₄ HNO ₃ H ₂ O ₂ (30%)

Max Sample Weight	Sample Type	Control Type	Method Type
50 mg	Standard	Ramp to Temperature	One Touch

Heating Prog	gram					
Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	280	30:00	59:59	N/A	500-1800	Med
2	280	0:00	30:01	N/A	500-1800	Med

^{*} Ramp times and power may vary depending on the type and number of vessels.

Results

Sample was clear and turquoise colored upon dilution to 50 mL.

General Precaution

- a) This procedure is a reference point for sample digestion using a CEM system and may need to be modified or changed to obtain the required results on your sample.
- b) If using a vessel other than the recommended choice, adjust sample size and pressure limit to values appropriate for the vessel chosen.
- c) Manual venting of CEM vessels should be performed when wearing hand/eye/body protection and 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.
- d) If programming as One Touch, the ramp time and power will be automatically determined based on the number and type of vessels detected.