

Discover® SP-D 80™ Method Note

Microwave Digestion of Pine Needles

Procedure

Weigh 0.5 g of the sample into the digestion vessel. Add 8 mL HNO_3 and 2 mL of H_2O_2 (30%). Gently swirl the mixture and wait approximately 15 minutes before capping the vessel.

Notes

Some plant tissues contain silicates which would require HF for total dissolution.

Recommended Equipment	Recommended Vessels	Reagents
Discover SP-D 80	80 mL Quartz	HNO ₃ H ₂ O ₂ (30%)

Max Sample Weight	Sample Type / Vent Program	Control Type	
0.5 g	Organic	Ramp to Temperature	

Heating Progra	am					
Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	200	5:00	3:00	400	300	Med

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

Results

Sample was clear, colorless, and particle free 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) If using HF, follow restrictions listed in HF Addendum