

## Application field: Capsule Shell

### Summary

This method provides for the acid digestion of capsule shell using LabTech digiblock digester.

### Equipment

LabTech digiblock digester EHD36 and digestion tube (PTFE)

### Reagent

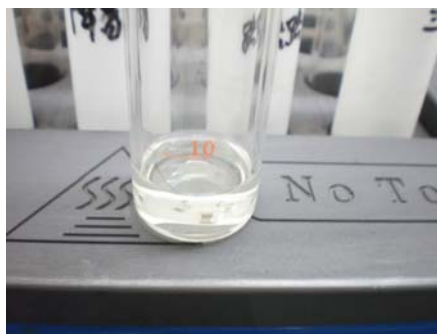
1.  $\text{HNO}_3$ : $\rho$ =1.42g/mL, AR
2. HF: $\rho$ =1.15g/mL, AR
3.  $\text{H}_2\text{O}_2$ : 30%, AR
4. Ultrapure water

### Procedure

1. Add 0.2g sample to the **PTFE** digestion tube and insert the tube into the cavity of digiblock digester.
2. Add 10ml  $\text{HNO}_3$ , 1ml HF into the tube.
3. Set the temp. of digester to 100°C and hold 30min.
4. Set the temp. of digester to 120°C and hold 160min.
5. Take the digestion tube out and cool it down..
6. Acid evaporation and constant volume to 2~3ml.  
Add 1ml  $\text{H}_2\text{O}_2$ . Inset the tube into the digester again and set the temp. of digester to 180°C and hold 45min .
7. We can see from below picture that the sample has been digested totally and the solution is ready for following analysis.



Sample



After Digestion

### Notes

1. Appropriate digestion time and acid proportion are both important for good digestion result due to the component are various in different samples.

### **LabTech, Inc.**

Address: 114 South Street, Hopkinton,  
MA 01748, U.S.A

Tel: (508) 435-5500

Fax: (508) 435-5595

2. LabTech digiblock digester can precisely control the digestion temperature and provide high sample-to-sample uniformity. It's a kind of easy and simple way to digest multiple samples.
3. Considering the mineral additives in the capsule, PTFE tube is necessary for application of HF.
4. Appropriate H<sub>2</sub>O<sub>2</sub> can speed up the acid evaporation.

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