

**Application field: Digestion For Red Wine**

**Summary**

This method provides for the acid digestion of Red Wine bought from supermarket by using LabTech digiblock digester.

**Equipment**

AutoDigiBlock with PTFE digestion tube

**Reagent**

1. (HNO<sub>3</sub>) , ρ=1.42g/mL, 65%~68%, GR
2. (HClO<sub>4</sub>) , ρ=1.68g/mL, 70-72%, GR

**Procedure**

1. Get 5ml sample, put into PTFE digestion tubes;
2. Set temperature 100°C heating for 0.75h to evaporate most of the alcohol, only a little left ;
3. Add 10mLHNO<sub>3</sub>+2mLHClO<sub>4</sub>;
4. Set temperature 100°C, hold for 30min;
5. Set temperature to 130°C, hold for 120min, a lot of reddish brown smoke will come out of the digestion tubes during this step;
6. Lift the digestion bracket, add 4ml HNO<sub>3</sub>, 2ml HClO<sub>4</sub>;
7. Set temperature 150°C, hold for 120min; sample digestion to clear and transparent and then evaporate the acid to the sample remaining 1-2ml;
8. Constant volume: volume the sample to 50ml with ultrapure water for testing

**Temperature programming:**

	Setting temperature/°C	Heating up time/min	Holding time/min
1	100	15	45
2	100	5	30
3	130	5	120
4	150	7	120

**Notes**

- Digestion can not start without step 2 ;
- To avoid the explosion of HClO<sub>4</sub> , the high temperature digestion must start after the organic matter decomposed completely by low temperature ;
- Do not desiccate the acid when evaporation ;
- This method is only for your reference.