

Atomic Absorption Spectrometers Perkin Elmer Analyst 800 (Flame) User's Guide

※If the pressure of the acetylene cylinder is lower than 40 psi, please don't do the analysis.

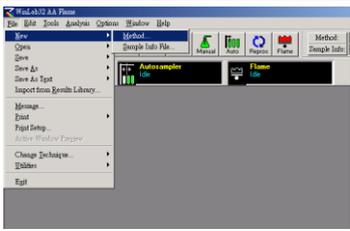
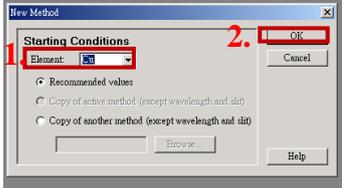
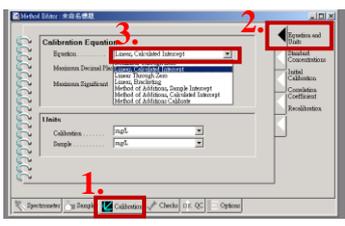
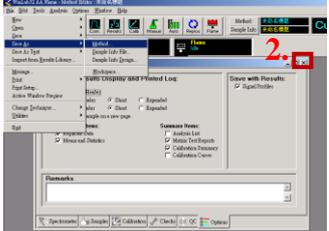
Call the technicians (tel:33664390).

※Sample Request : All samples must be filtered.

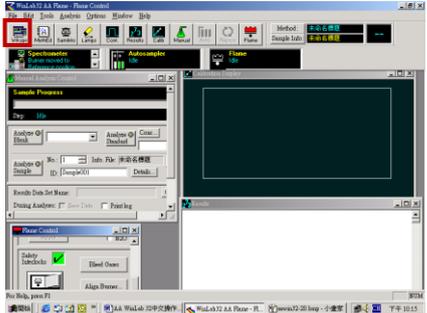
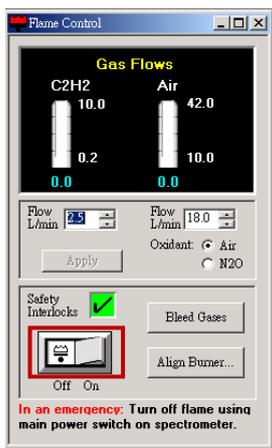
Start procedure

1. Switch on AA system 、 computer and the exhaust system.
2. Switch on the air compressor. (The air escape valve should be closed)
3. Turn on the gas supply at the acetylene cylinder. (The pressure should be lower the black line showed on Pressure gauge.)
4. Click  AA WinLab 32 to start the AA software ◦

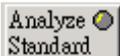
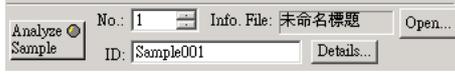
Develop a new method

1.		Click File→New→Method
2.		1.Select the element you want to analysis. 2.Click OK
3.		1.Click <u>Calibration</u> page (at the bottom) 2.Click <u>Equation and Unit Page</u> (at the right) 3. Select equation : we normally use <u>Linear ,Calculate Intercept</u>
4.		1. Click <u>Standard Concentrations Page</u> (at the right) 2. Enter <u>Blank ID</u> , <u>Std ID</u> and <u>Conc.</u>
5.		Save Method 1.Click File→Save As→Method 2.Click  to close the window of Method Editor.

Ignite the flame

1.		<p>Click the Wokspc icon  and select the <u>flame.flm</u>.</p>
2	 <p>means OK </p> <p>means not OK </p>	<p>Ignite the flame by clicking the icon. </p> <p>※Before ignite the flame, you should check the burner head is appropriate.</p> <p>C_2H_2/ Air- for 10cm burner head. Acetylene/Air</p> <p>N_2O/C_2H_2 - for 5cm burner head. Acetylene/ dinitrogen oxide</p>

Analysis

1		<p>Click Manual Analysis Control window. </p> <p>Enter your result data name at Result Data Name field.</p>
a		<p>Aspirate 0.15% HNO_3 (Blank), Click “Analyze Blank “icon. </p>
b		<p>Aspirate standard solution, Click “Analyze Standard” icon. </p>
c		<p>Enter your sample’s id at Sample ID field. Aspirate sample, Click “Analyze Sample” icon. </p>

※Rinse the atomizer by aspirating 0.15% HNO_3 between each standard solution and each sample to reduce memory effects.

Turn off procedure

1. Rinse the atomizer by aspirating 0.15% HNO₃ for 3 ~ 5minutes.

2. Click the lamps icon  , record the energy of the lamp.



3. Extinguish the flame by clicking this icon. 

4. Switch off the gas supply at the acetylene cylinder.

5. Switch off the air compressor and vent the air by opening the air escape valve.

6. Click the icon  in Flame Control window to vent the acetylene in the system.

7. Close the Software → turn off the computer → turn off the AA system → turn off the exhaust system.

8. Be sure to fill the instrument record form before you leave.

※If you want to know the best condition for each element, you can find it in **Recommended Conditions** by Choosing Tools→Recommended Conditions ◦