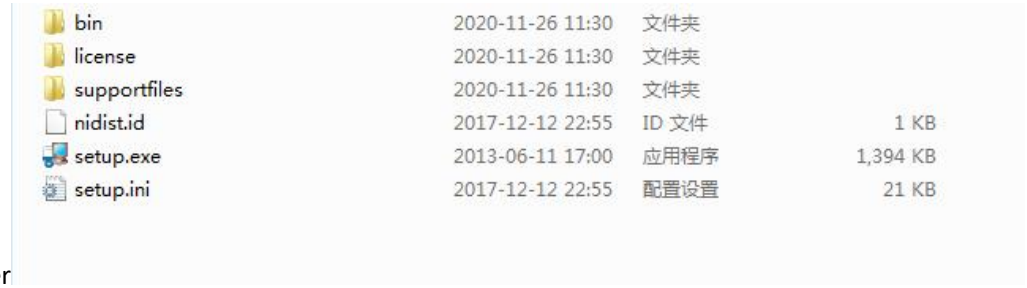
Installation and use of PC software for flame photometer

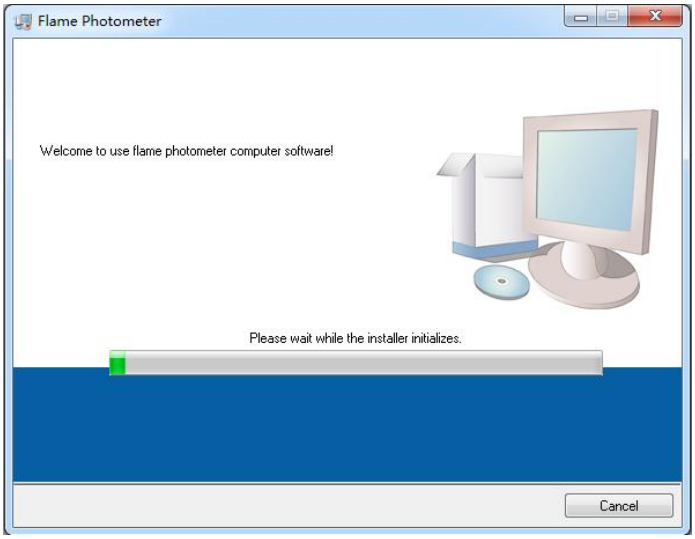
Computer system requirements： Windows 7

1、Program installation

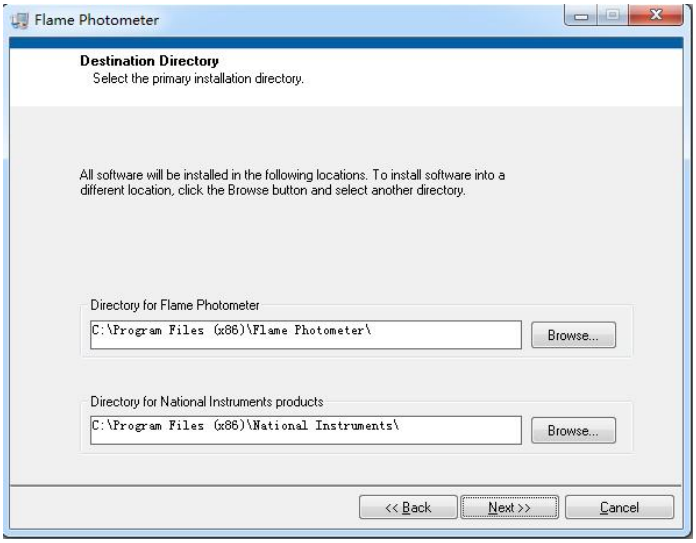
Find the setup installer in the installer folder of the flame photometer



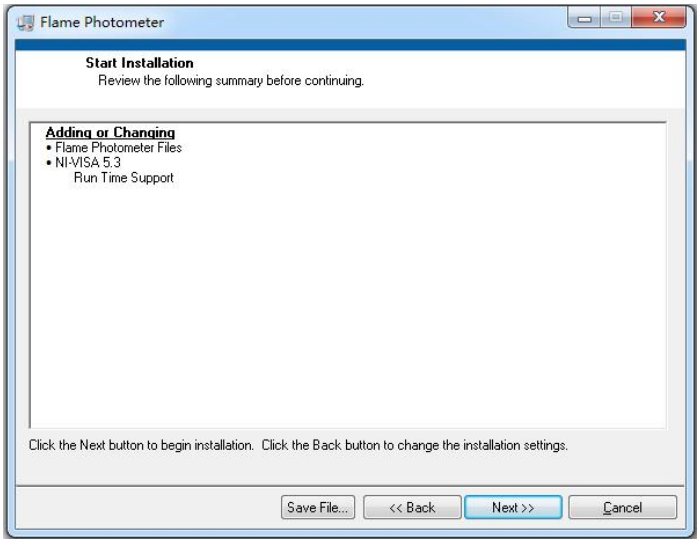
Double-click the setup file to install the program



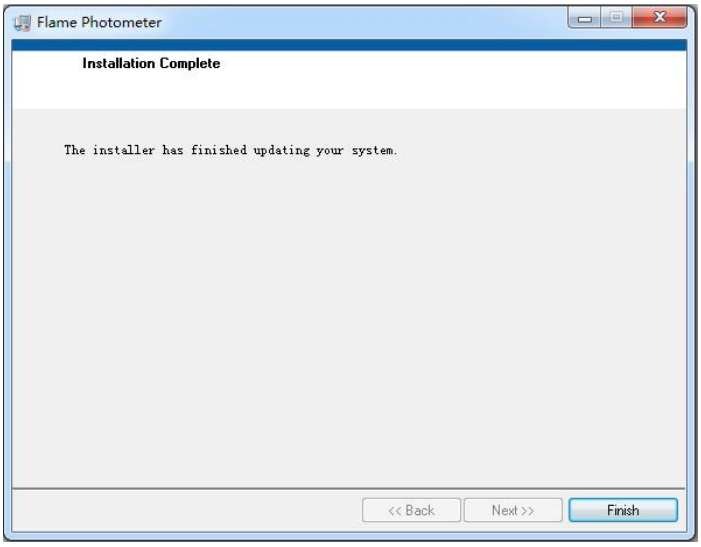
The installation program is initialized



Click next step



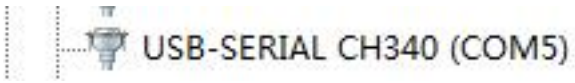
Click Next step to complete the software installation



Click Finish to complete the software installation.

2、RS232 serial port software driver installation

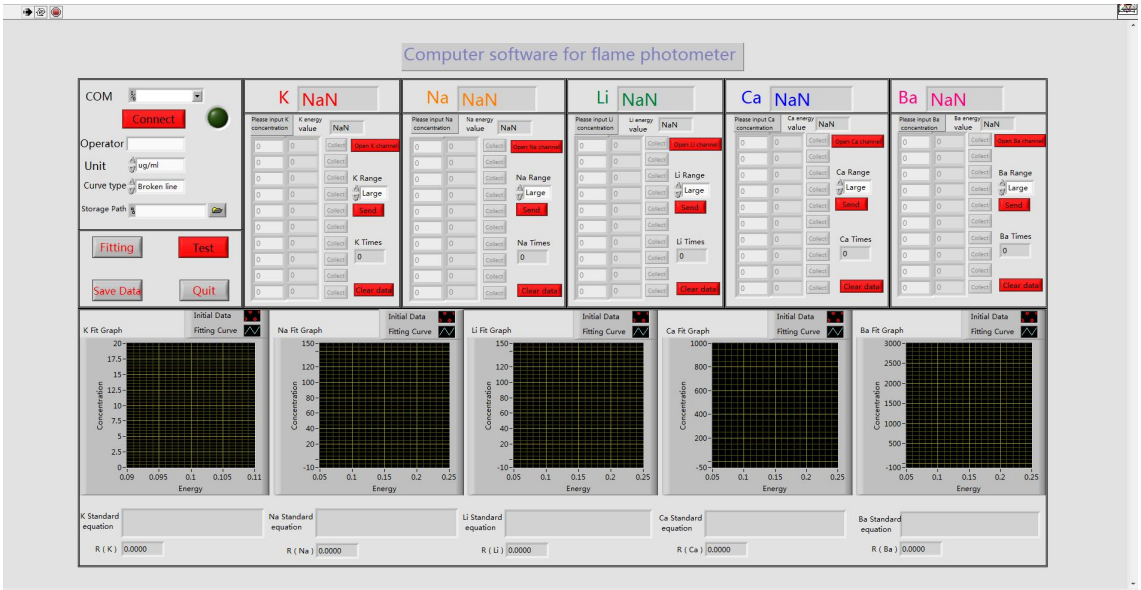
Insert the serial cable on the computer, find the CH341SerSetup folder in the software installation path, open it, find the CH341SerSetup installation file, double-click the software, the default installation, click Finish, complete the serial driver installation.



The USB-SERAL CH340 (COM3) driver just installed will appear in the port in the device manager.

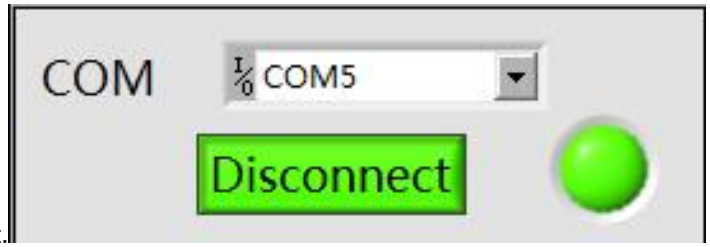
3、Flame photometer software operation

Insert the RS232 serial cable USB port in the accessory into the computer, and insert the serial port DB9 into the flame photometer host, then insert the software dongle into the computer, turn on the flame photometer host, find the flame photometer application software on the computer and Double-click to open the software.



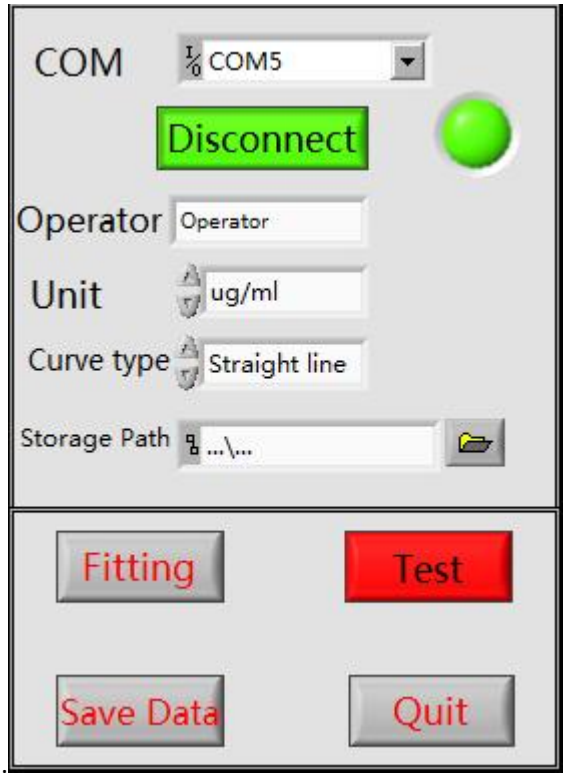
Click the serial port number drop-down, refresh, and select the serial port number connected to the flame photometer host.

Click to open the serial port button to connect to the flame photometer host.



The serial port indicator turns green, the surface serial port works, and the computer and the flame photometer host are successfully connected.

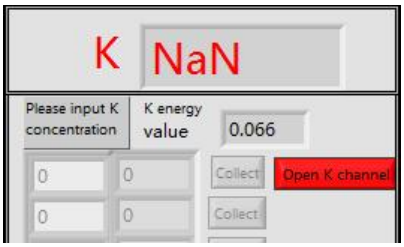
After connecting to the host, let’ s take potassium (K) channel as an



example.

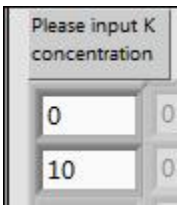
The operator fills in the operator’ s number. There are three units of ug/ml, mmol/L, and %. Here we choose ug/ml. For the curve type, we choose a straight line. Click on the back of the storage path  , Create a new text document under the path and click OK to complete the basic operation of the setting.

3.1Establishment of standard curve:



In the potassium channel, click the button to open the K channel

The background color of the K channel button turns green, indicating that the potassium channel is open

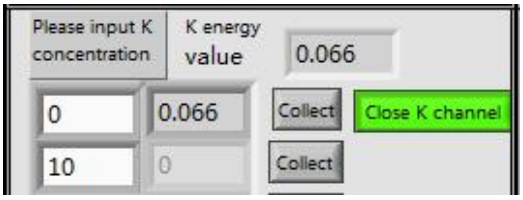


In the column "Please enter the K concentration", enter the actual concentration of the standard sample. Here we

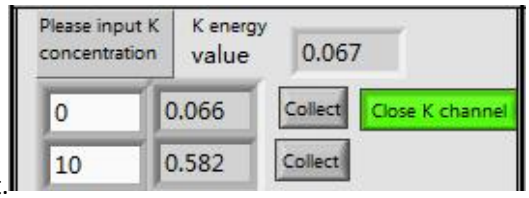
have selected 2 points, one is pure water and the other is potassium solution at 10ug/ml.

Each channel has an energy value. When the energy value is stable (5-8 seconds after the solution is put in), click the acquisition button corresponding to each standard solution to complete the calibration of the standard solution.

Here, we put in pure water. After the energy value is stable, press the collection button corresponding to the standard solution of 0ug/ml to complete the calibration of this point.

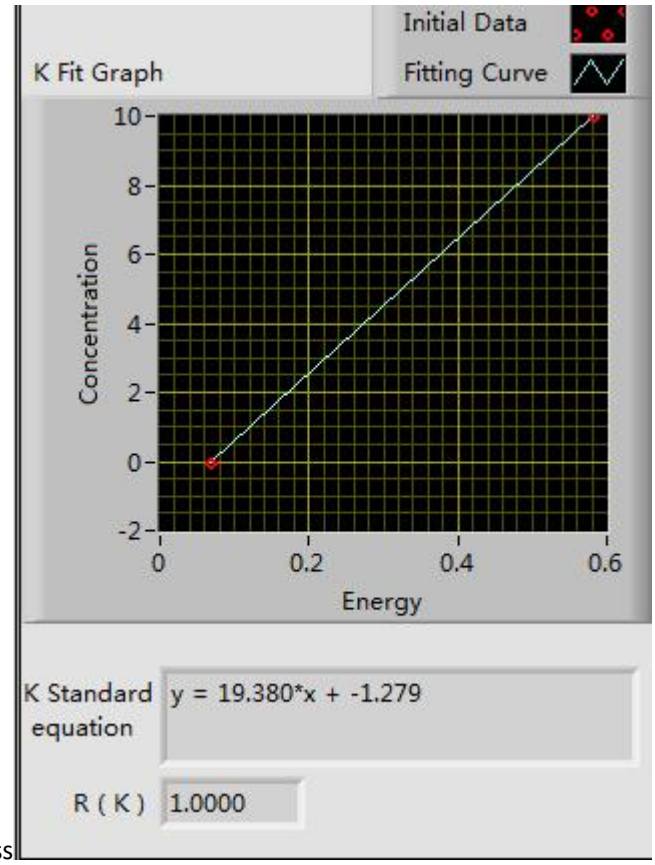


We put in a standard potassium solution of 10ug/ml. After the energy value is stable, press the acquisition button corresponding to the standard solution of 10ug/ml to complete the calibration of this point.



When the standard solutions are all calibrated, click 

Button to complete the data fitting

process 

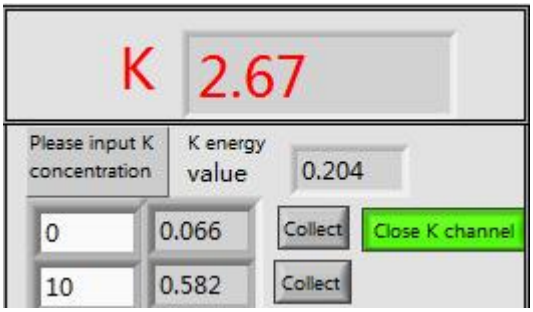
In the waveform diagram corresponding to the potassium channel, there will be a graphical picture of the fitting curve, which is very intuitive, and the standard equation and correlation coefficient of the potassium channel will also be given.

3.2 Test：

Click 

button， when the button change into 

， enter real-time test state， Just put in the sample to be tested and test it directly. The sample test result here is 6.44ug/ml.



3.3 Data storage：

In the test state, click 

， Complete a test data save. Under the data save path, find the text file corresponding to the saved data 

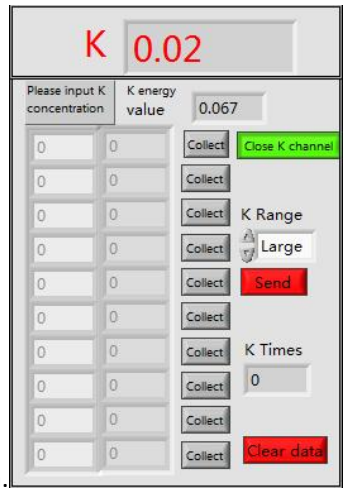
， open the document, you can see the data stored in

history.

```
Operator  2019-10-10 12:19:06 K :0.02      ug/ml Straight line
Operator  2019-10-10 12:19:17 K :0.39      ug/ml Straight line
Operator  2019-10-10 12:19:19 K :0.74      ug/ml Straight line
Operator  2019-10-10 12:19:21 K :1.03      ug/ml Straight line
```

When you need to reset the standard curve, we just press 

, after the data is cleared, complete the calibration of the standard curve again.



3.4 Selection of range：

The flame photometer has three range states: small range, medium range, large range.

The range corresponding to the corresponding concentration of potassium and sodium standard solution

Small range	0~5ug/ml
Mid range	0~20ug/ml
Large range	0~100ug/ml

Our default is to choose a large range.

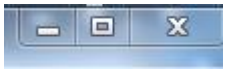
4、Closing of the software:

After completing the test, first click 

, the indicator light corresponding to the serial port becomes 

, the serial port is closed successfully.

Then click 

, then click on the entire program  inside  Press the key to complete the exit of the software.