Example to demonstrate importing an experiment from an ASCII text file

Why need to import data form ASCII text file?

Some data were not saved in commonly used format, or part of the file was damaged, so the file can not be read. In these cases, we can import an experiment data directly from an ASCII text file by the Sieve tool in PDF-4/ PDF-2

Open Sleve

1. In PDF-4, left click on the icon in the toolbar to open Sleve

2. Once open Sleve, left click on import data icon. This function can also be activated from the file menu
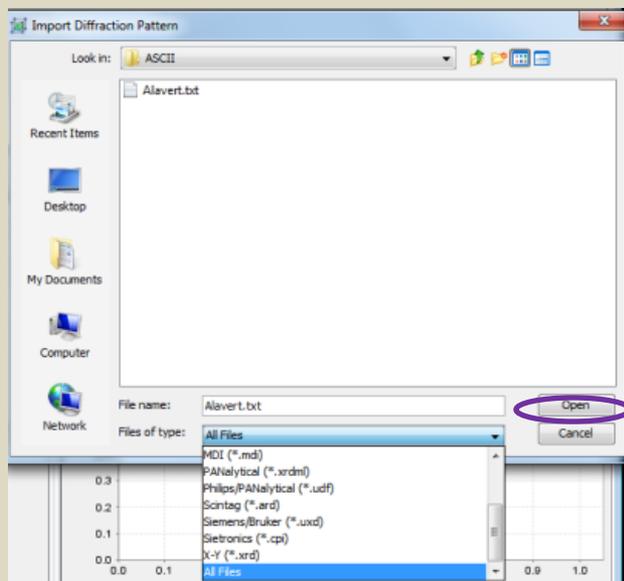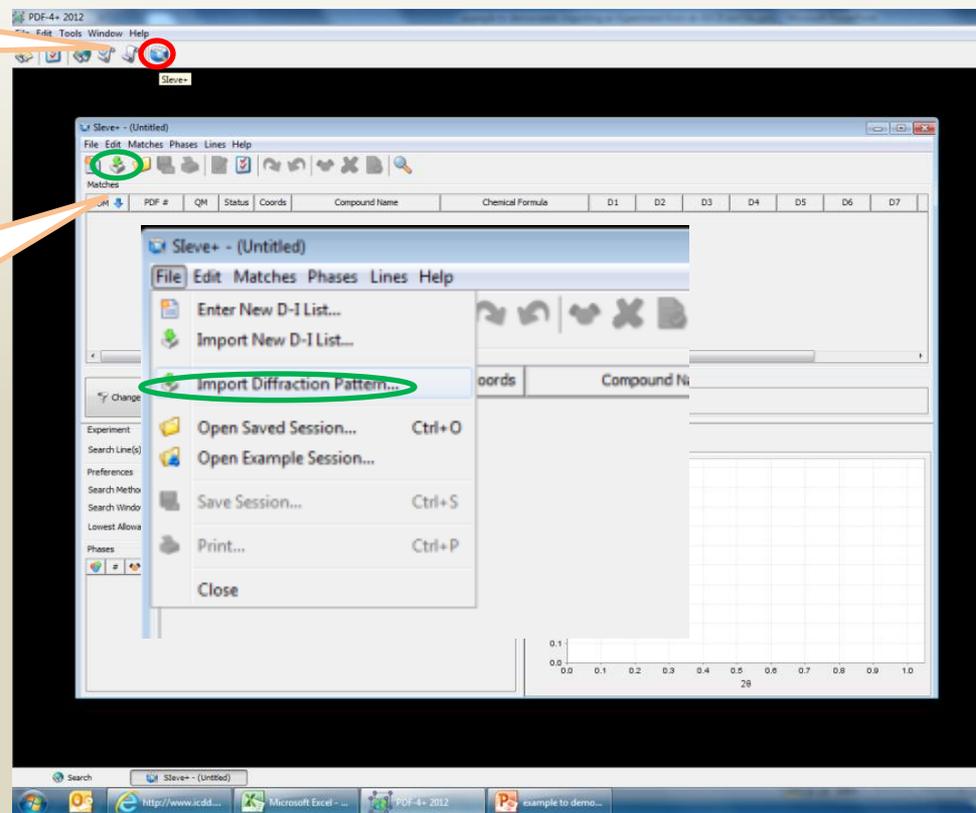
3. Select the data file. Most of common formats can be imported directly. If your files are not belonging to these readable formats, you can still change files of type to all files, and then select your data.

Import data


```
## Calibrated wavelength = 0.413891
## Normalization factor = 7.0111
##
## 2theta, intensity, sigma(intensity)
0.500000, 186.990436, 26.470037
0.501000, 163.055531, 24.651342
0.502000, 151.628178, 23.770995
0.503000, 176.085940, 25.609698
0.504000, 175.946894, 25.647889
0.505000, 173.626090, 25.478113
0.506000, 158.407033, 24.361503
0.507000, 167.026713, 25.028063
```
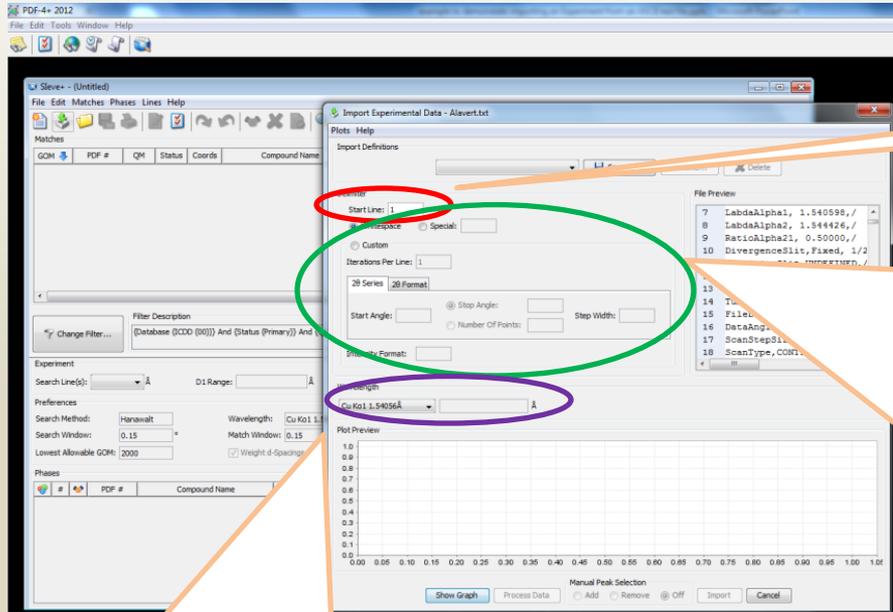
1. Select the start line of the data.

2. If your data contain 2 theta-intensity information as the data I showed up side, you can select white space or type in the character used to separate the column.

If your file contains only the intensity as the file I showed below, you should choose costume, and type in the start angle, step width and stop angle/number of steps. For the intensity format, type in Nc. More explanation about the intensity format option is shown in next slide

3. Select X-ray source. If it is synchrotron radiation, select "other" and then input the wavelength

```
20 RawScan
21   2669, 2480, 2220, 2263, 2031, 2008, 2049, 1828
22   1828, 1724, 1617, 1607, 1574, 1476, 1501, 1419
23   1374, 1359, 1315, 1278, 1207, 1165, 1287, 1194
24   1144, 1108, 1102, 1081, 1078, 1069, 1108, 1039
25   984, 1069, 1009, 1019, 1001, 1081, 1023, 1054
26   990, 1021,   892,   966, 1001,   981,   930,   886
27   939,   934,   940,   976,   876,   958,   959,   958
28   932,   948,   952,   943,   865,   957,   938,   928
```

# Input option notations

- c All characters should be skipped.

- c[#] Skip specified numbers (#) of characters.

- n All numbers should be skipped.

- t All text should be skipped.

- N All numbers should be imported.

- N[#] Import fixed length data (# = fixed length)
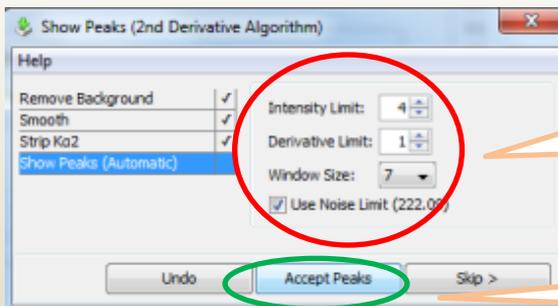
# Data processing

1. Click on show graph gives the figure, and then click on process data to open a new data process window
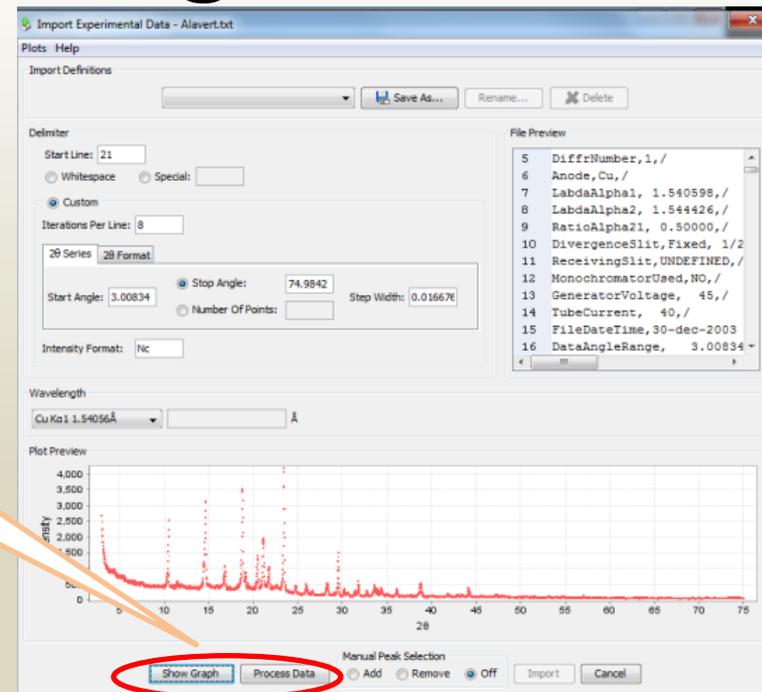
2. Data process includes background remove, smooth and strip K-alfa2. You can process these steps or skip them if you think they are not necessary.
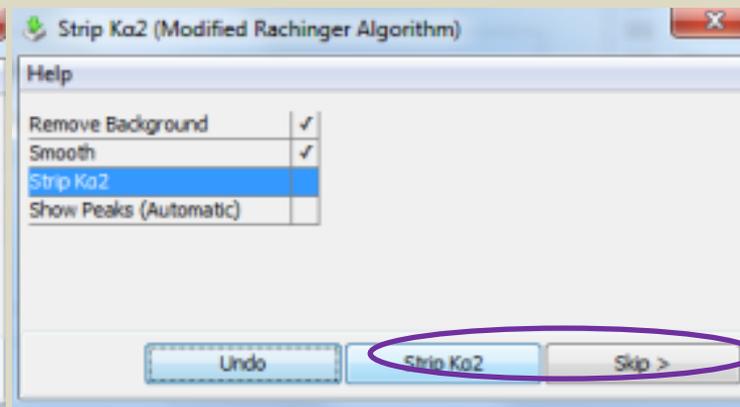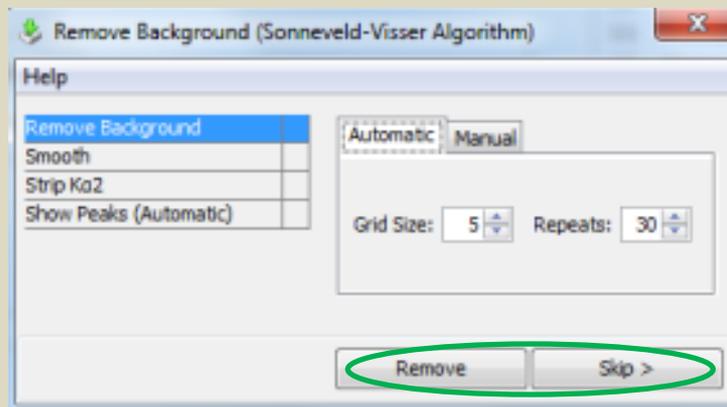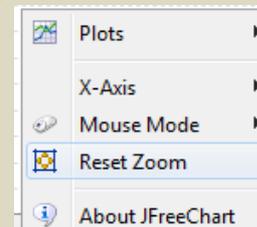
# Generate peaks list



1. Show peaks is the last data process step. Criteria of peak intensity, derivative and window size can be manually set

2. Click accept peaks to create I/d list
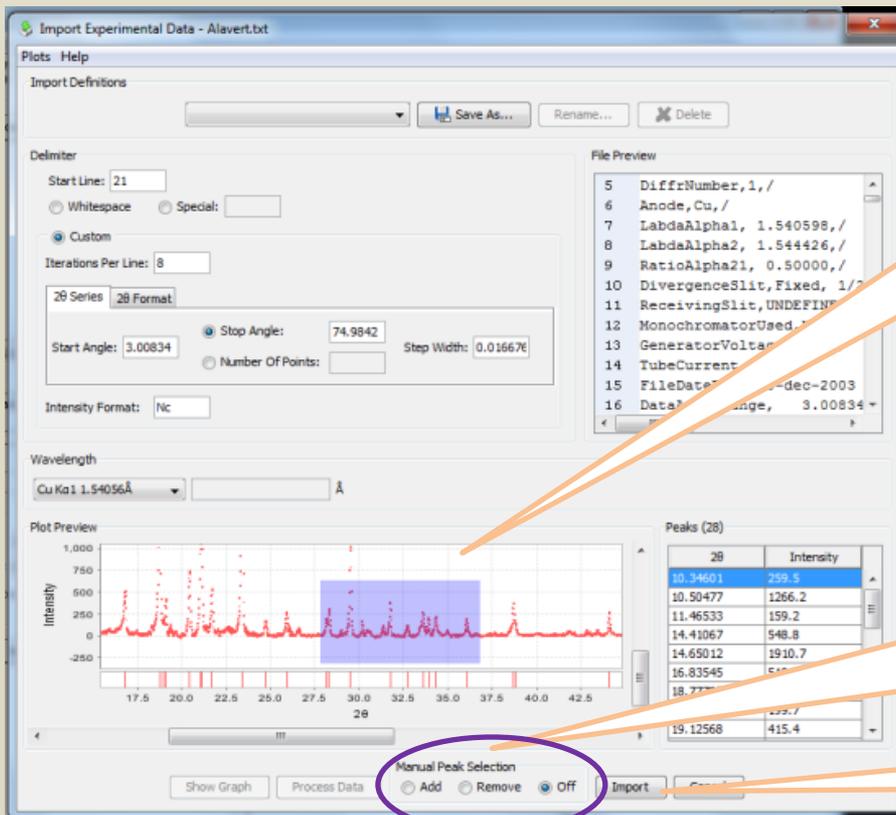
Tip: Hold left and drag to zoom in the figure

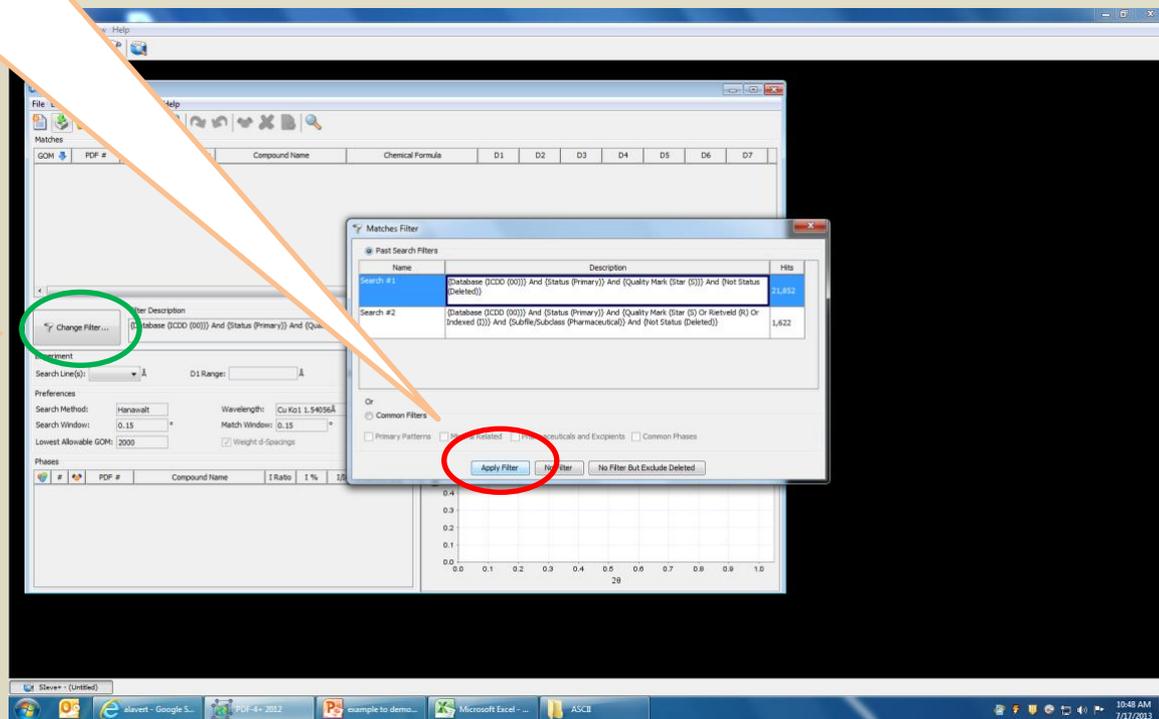Tip: Right click on the figure to open the menu for zoom reset

3. Click on add/remove and then click on the figure to manually add/remove the peaks into/from the list

4. Click import to start the search match

# Search match

1. To start search match, select the filter and then click apply filter

2. Click change filter to another filter for better result. For more information about setting filters, please check other tutorials.