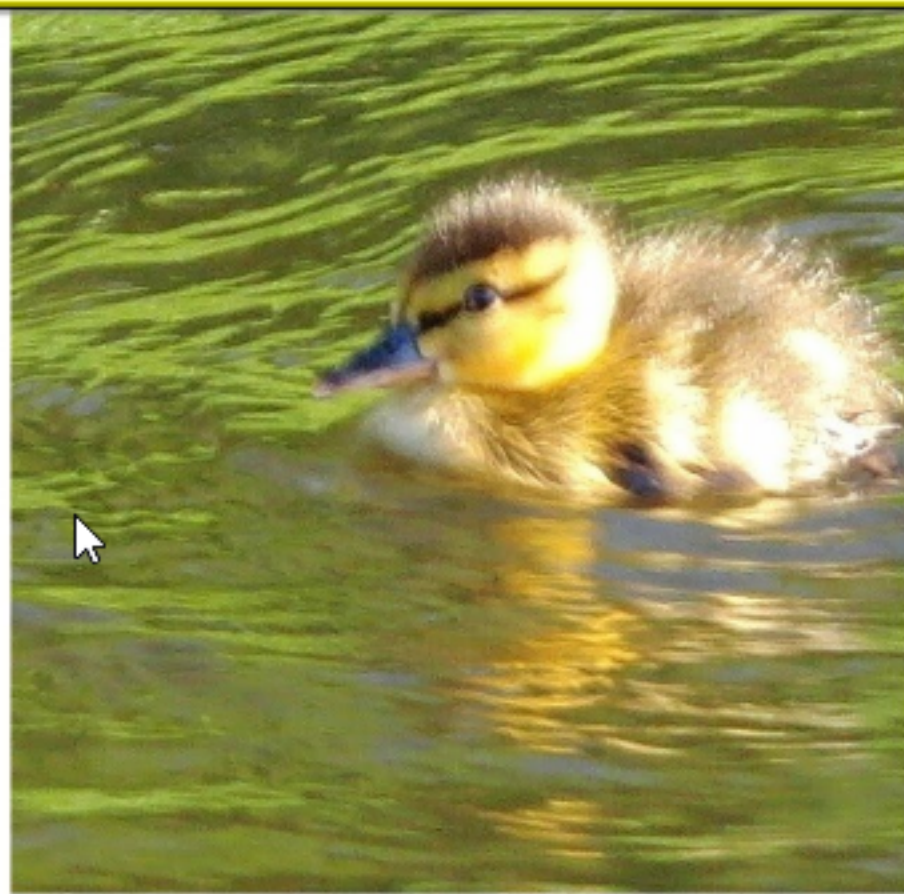
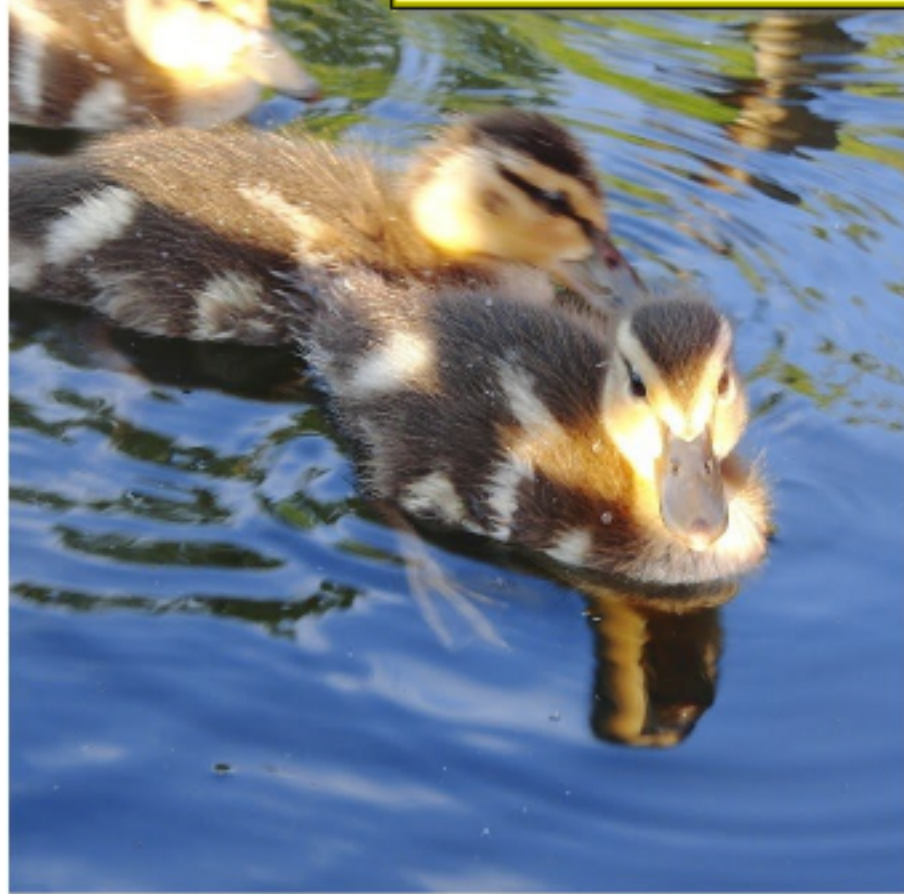
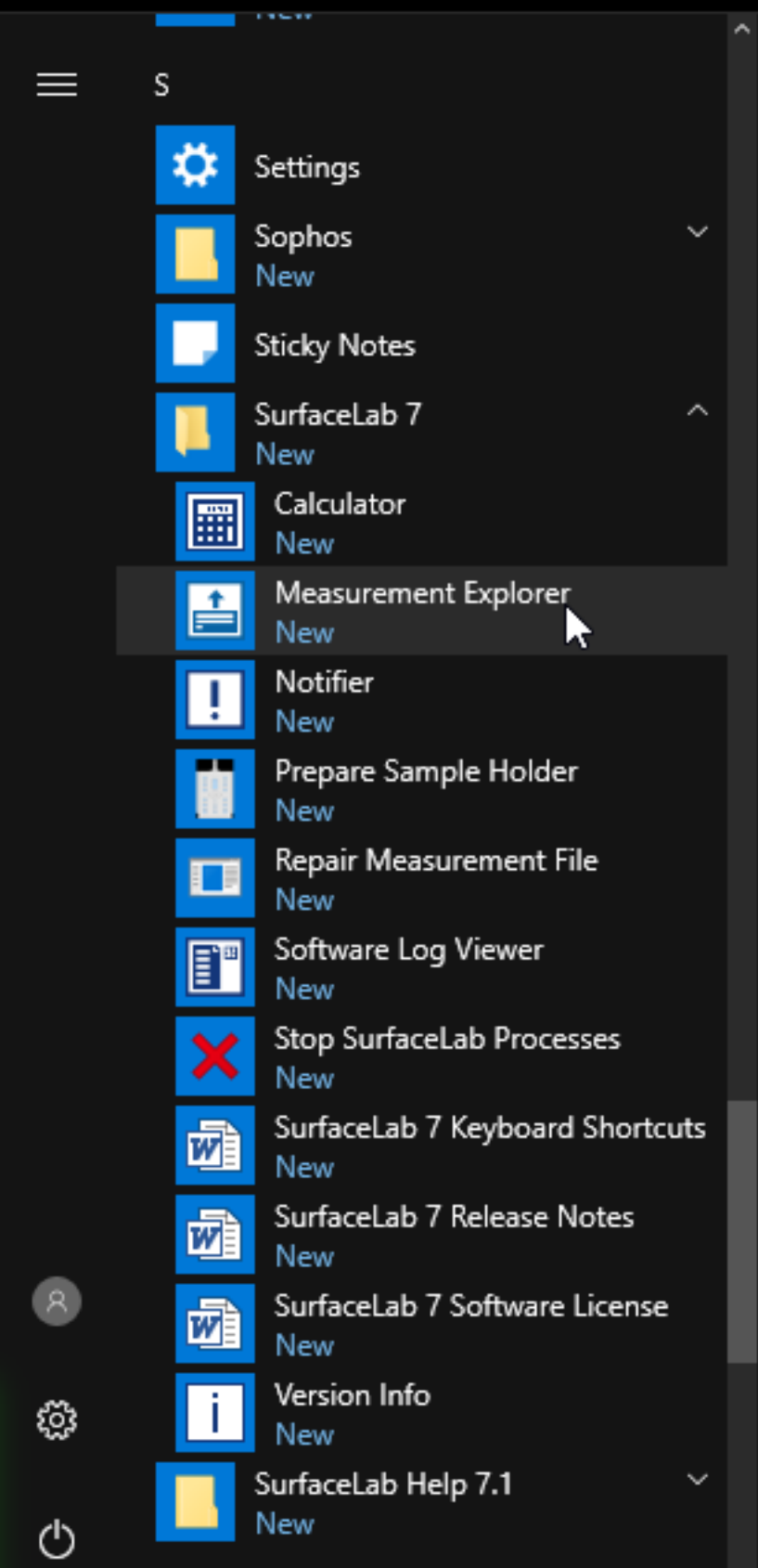


This tutorial will cover the basics of starting Surface Lab and briefly go over the main program windows.

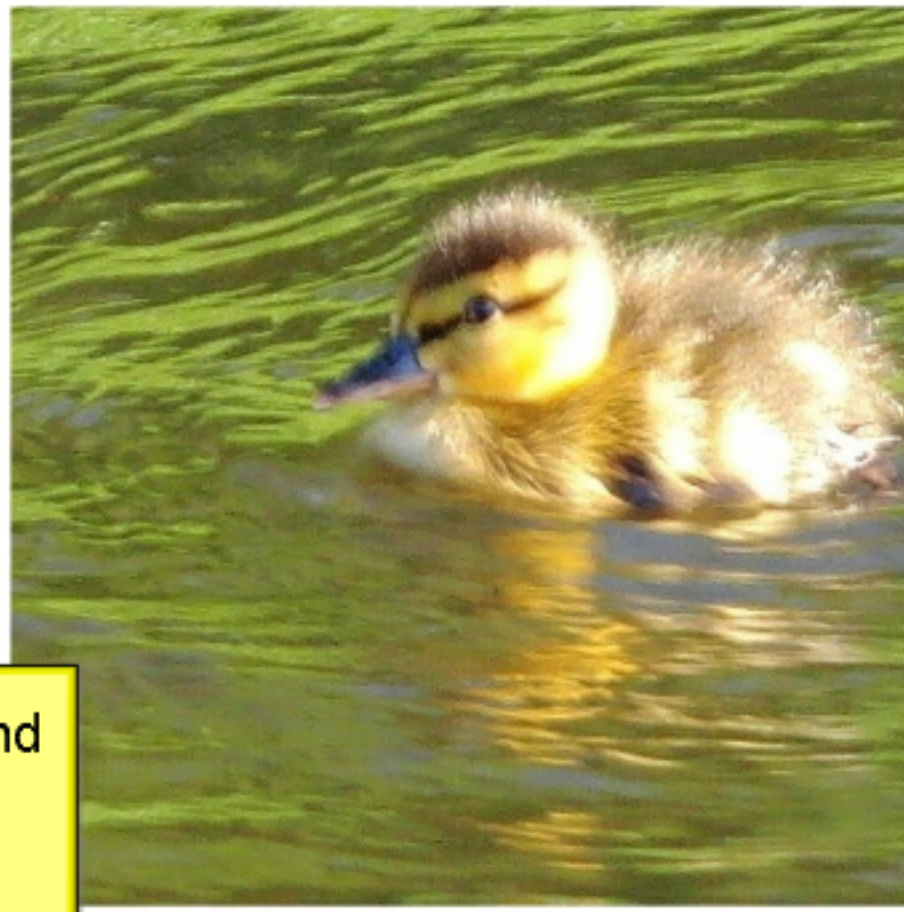
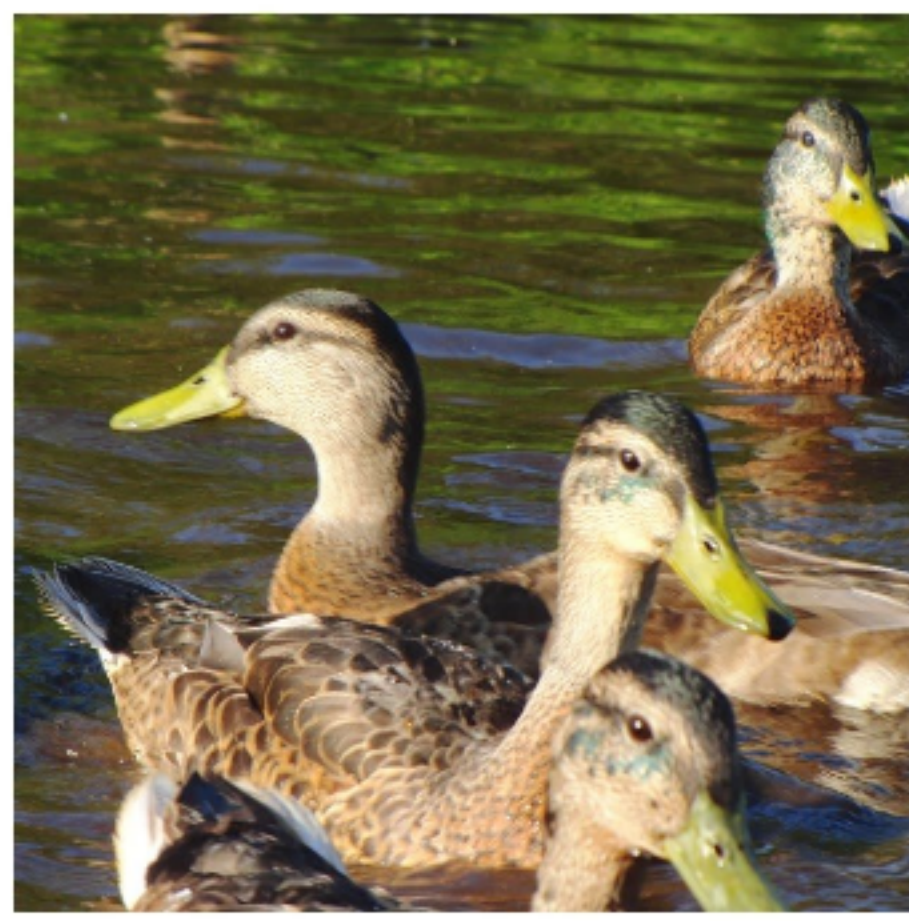




Recycle Bin



From the Start menu find Surface lab and then Select 'Measurement Explorer'.



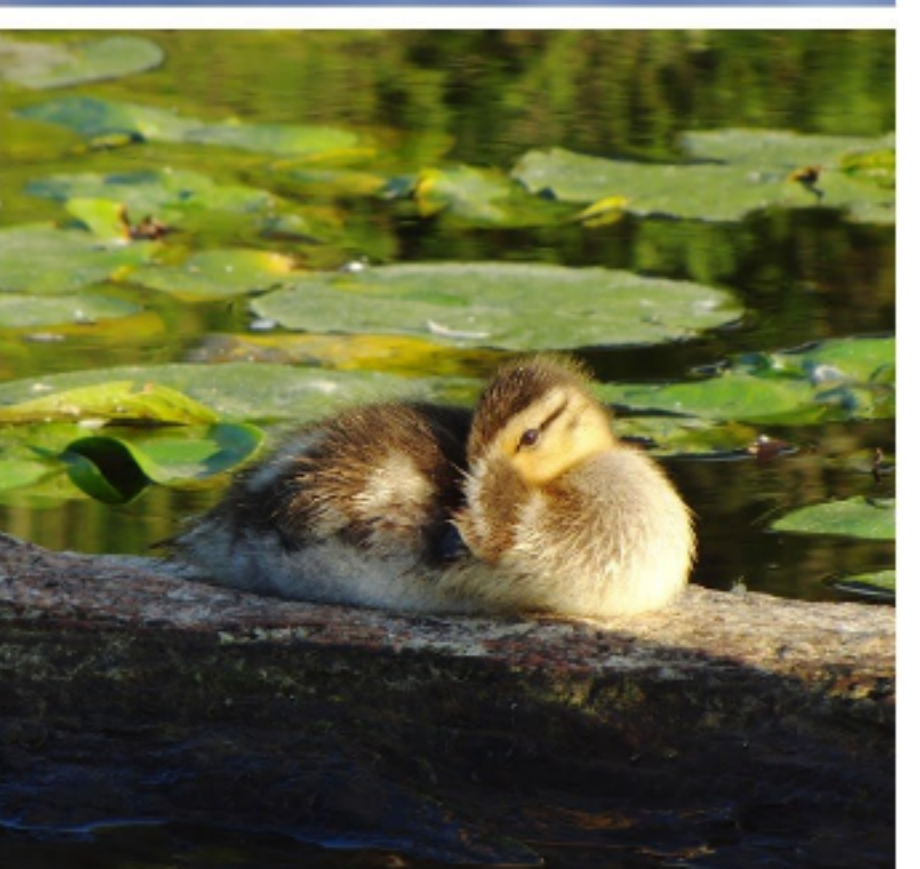
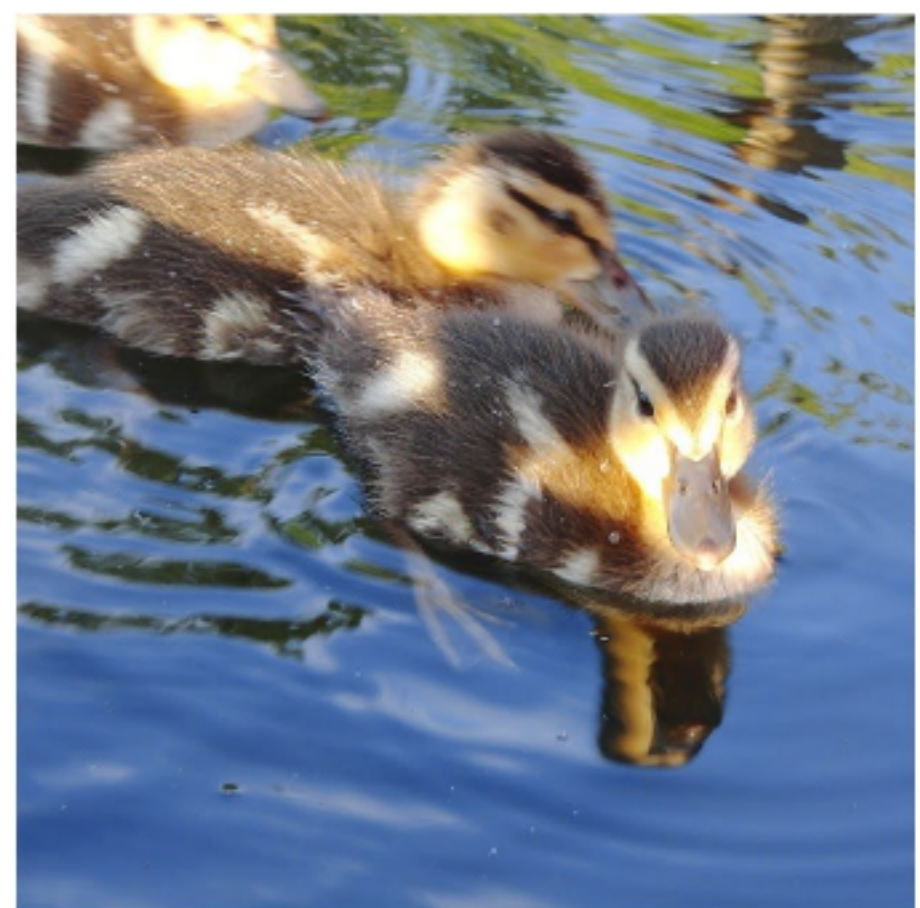
Open Spectra Program

Recycle Bin



Open Spectra Program

Recycle Bin



You can close and minimize the toolbar here.

Note: The toolbar may overlap some program windows. If this happens, just minimize the toolbar and resize the affected program window(s).

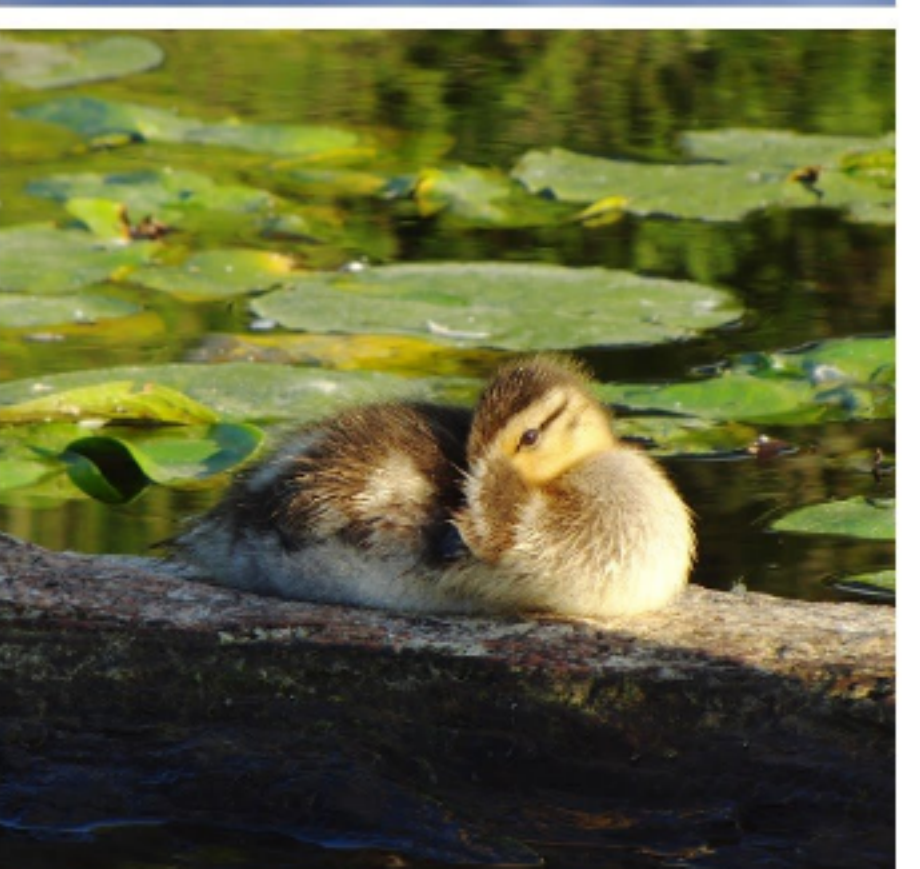
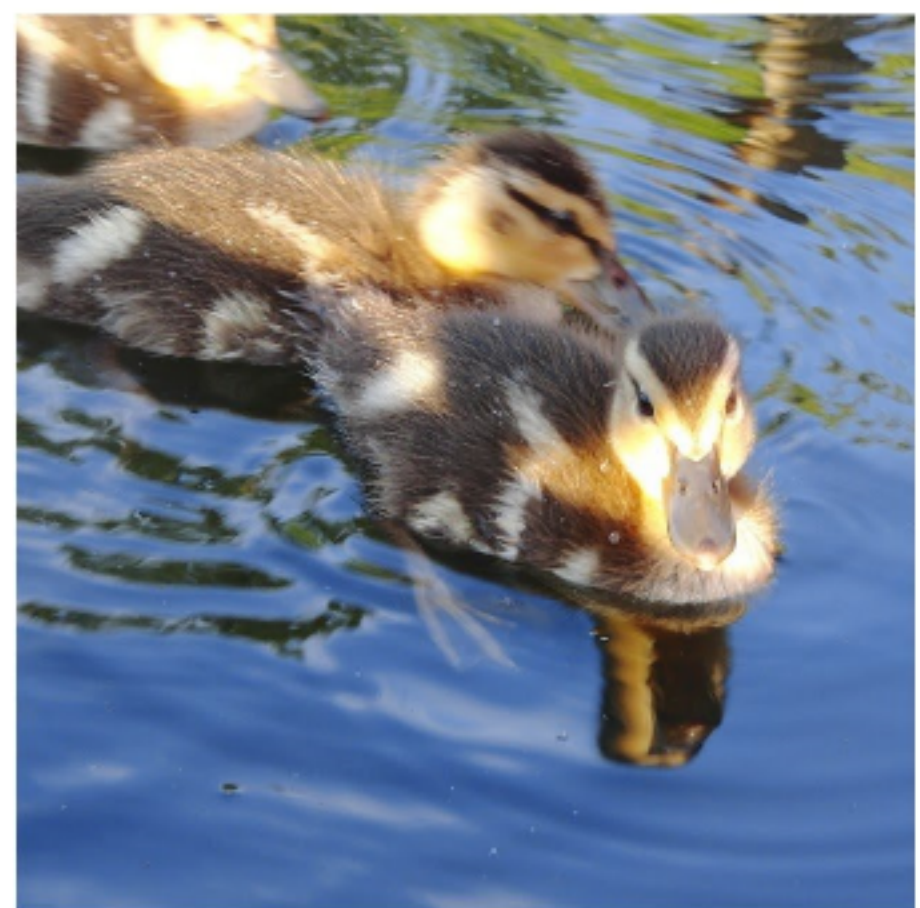
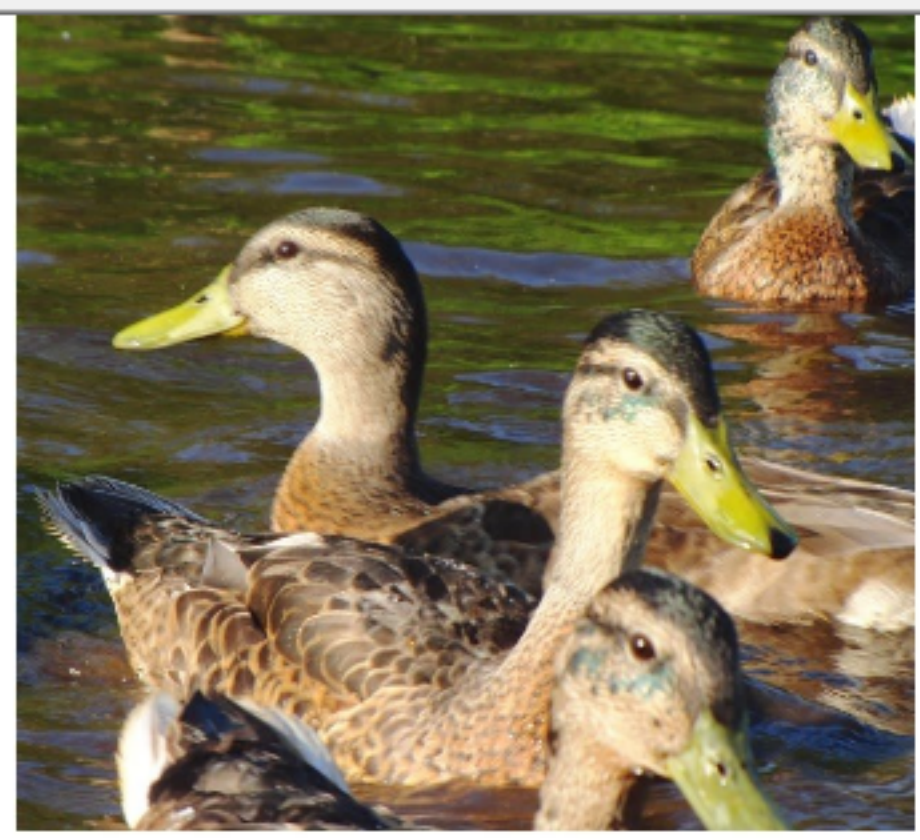
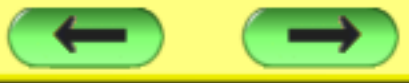
Note: If you close the toolbar, it will close all active SurfaceLab windows.

← →



Open Spectra Program

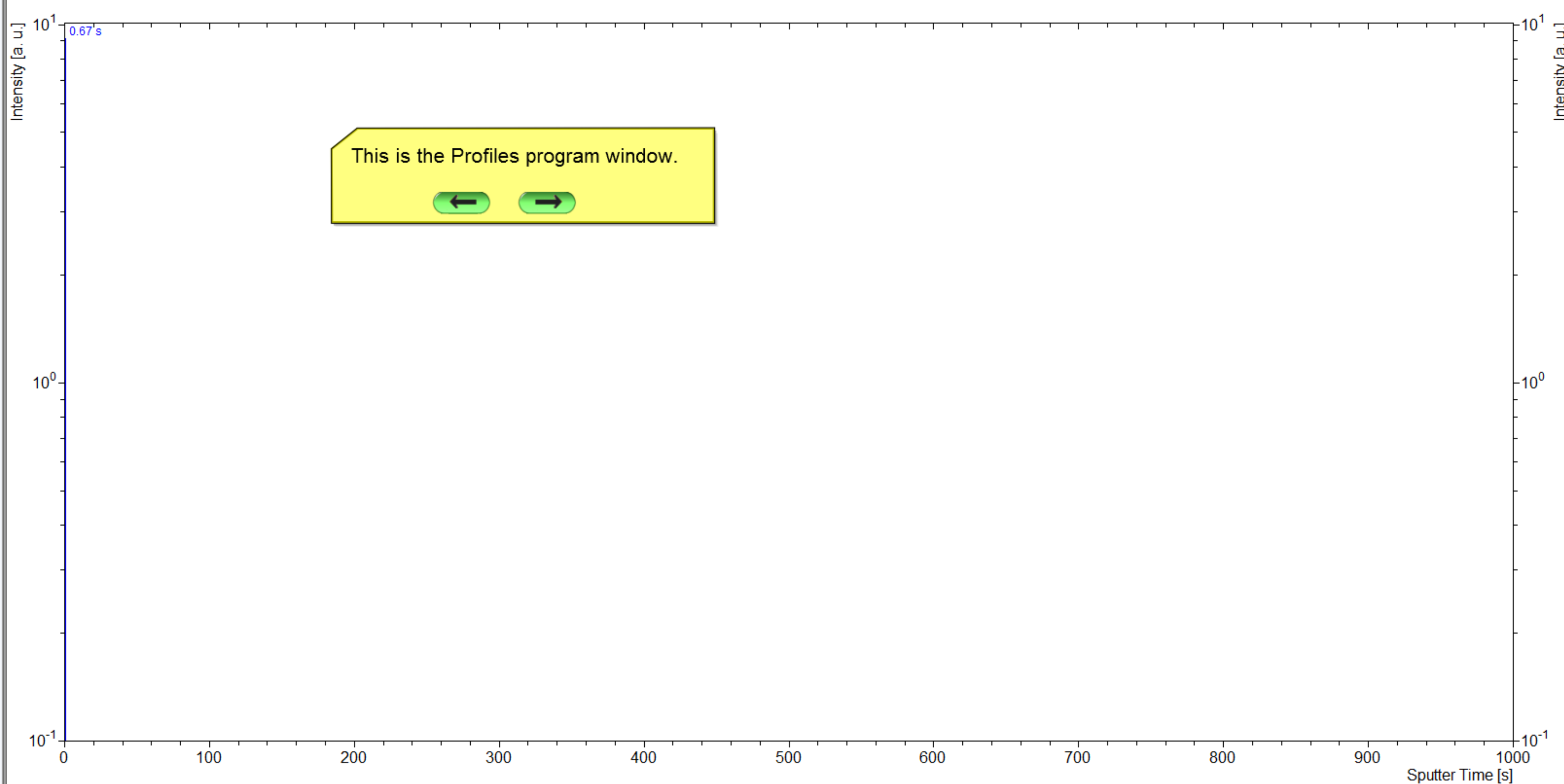
You can open the Spectra, Profiles and Images programs by pressing the respective buttons.  
Here we press the 'Spectra' button.







Data Point: Time (s): Depth (nm): Dose (ions): Fluence (ions/cm<sup>2</sup>): Temperature (°C): Set (°C): Intensity (cts): Point-to-Point Normalization: Constant Reference Normalization: Normalized to Max: Concentration (atom/cm<sup>2</sup>):



Compilations Profiles

Intervals Properties

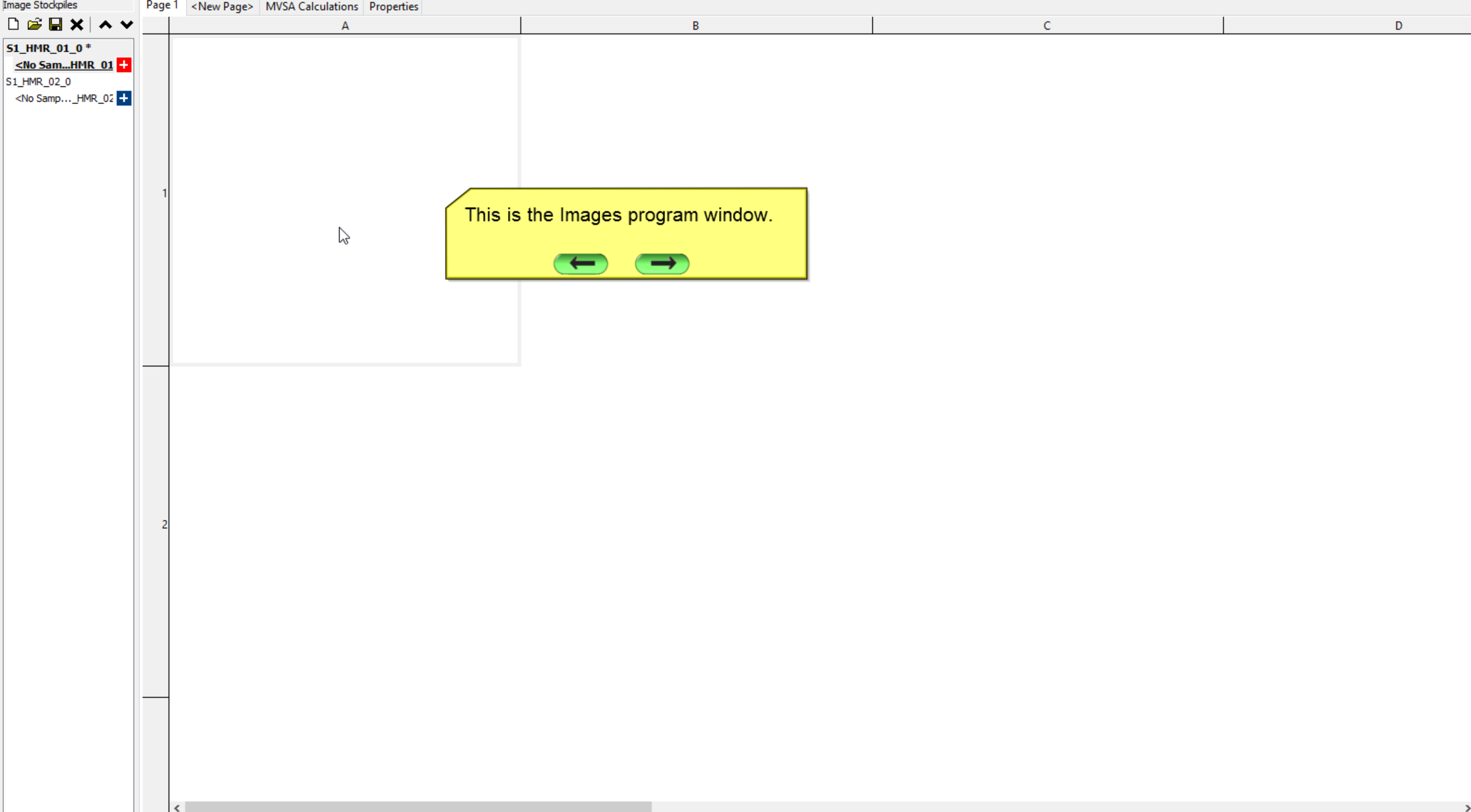
ab [dropdown]

- Show Differential Sort: Mass [dropdown]
- Use shift correction Binning: 16 pixels [dropdown]
- Use poisson correction z-ROI: Total Range [dropdown]
- lat-ROI: Total Range [dropdown]

Zoom: [slider]

Now we press the 'Images' button

← →



Sort: Mass  
Use shift correction  
Use poisson correction  
Binning: 1 pixel  
z-ROI: Total Range  
lat-ROI: Total Range  
Zoom: [Slider]

Image Stockpile | Attachments | New subset

45.03 u	59.01 u
59.05 u	69.04 u
69.08 u	73.03 u
87.05 u	89.06 u

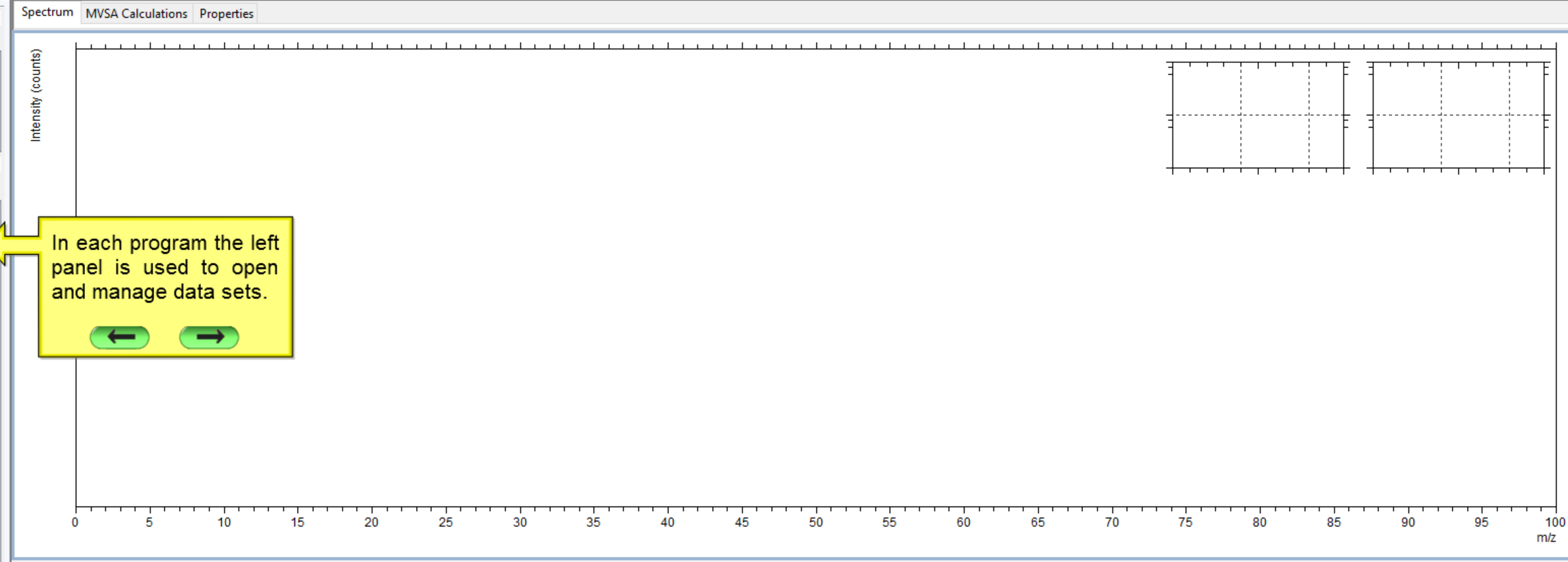
Find:   Explained (%)  Resolution   
Area (cts)  Counts / Shot  Peak Difference...  Width (ns)

Compilations

Spectra

Spectra

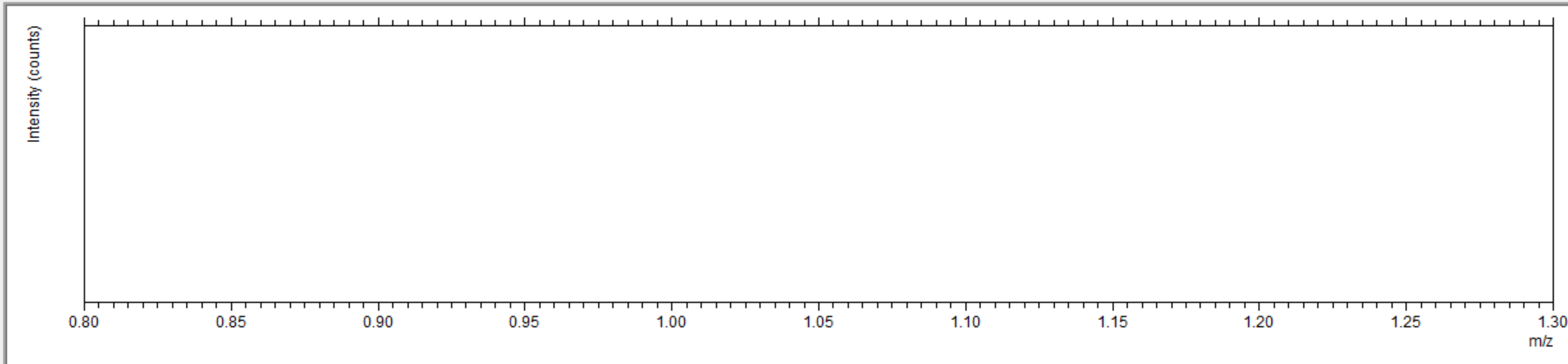
Mass Interval Lists



In each program the left panel is used to open and manage data sets.

← →

V	No.	m / z	Area (a. u.)	Color



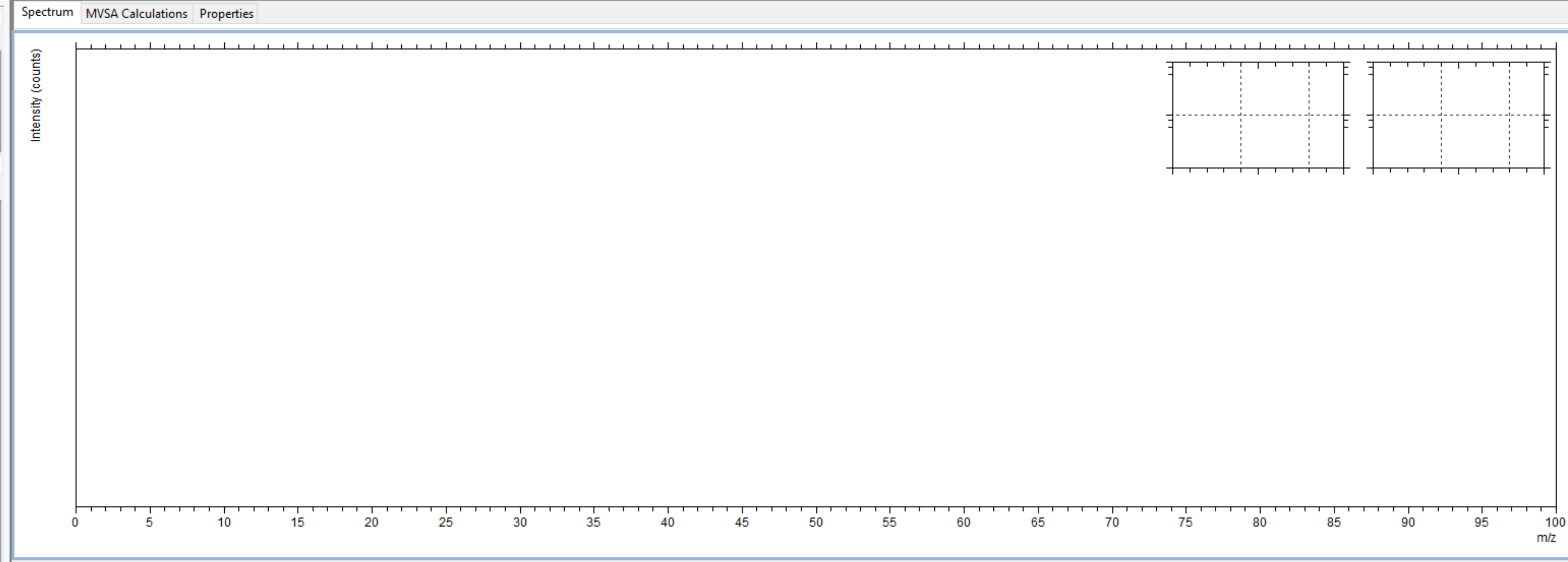


Find:   Explained (%) Resolution Width (ns) Area (cts) Counts / Shot Dev. (ppm) m/z ?

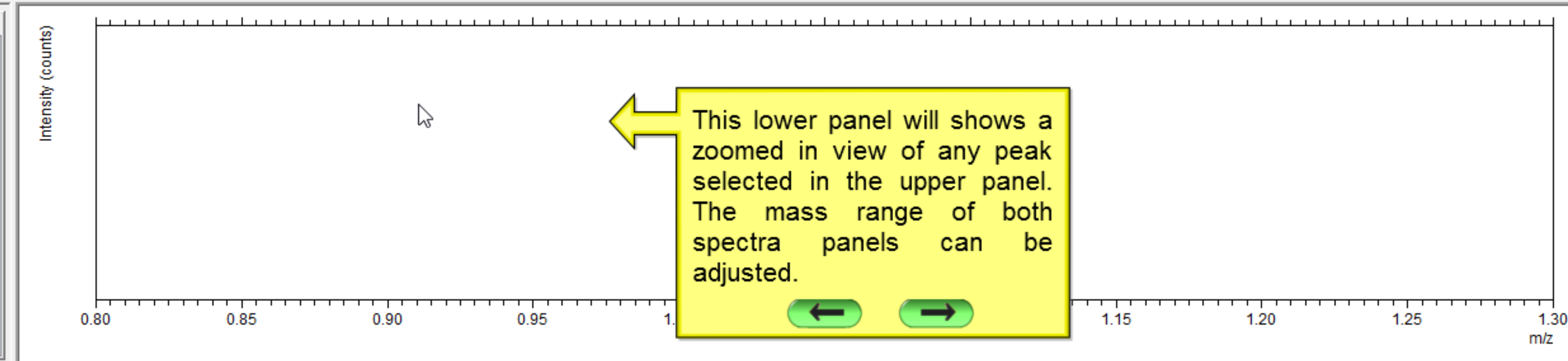
Compilations Spectra

Spectra

Mass Interval Lists



V	No.	m / z	Area (a. u.)	Color



This lower panel will shows a zoomed in view of any peak selected in the upper panel. The mass range of both spectra panels can be adjusted.



Find:   Explained (%)  Resolution   
Area (cts)  Counts / Shot  Peak Difference...  Width (ns)

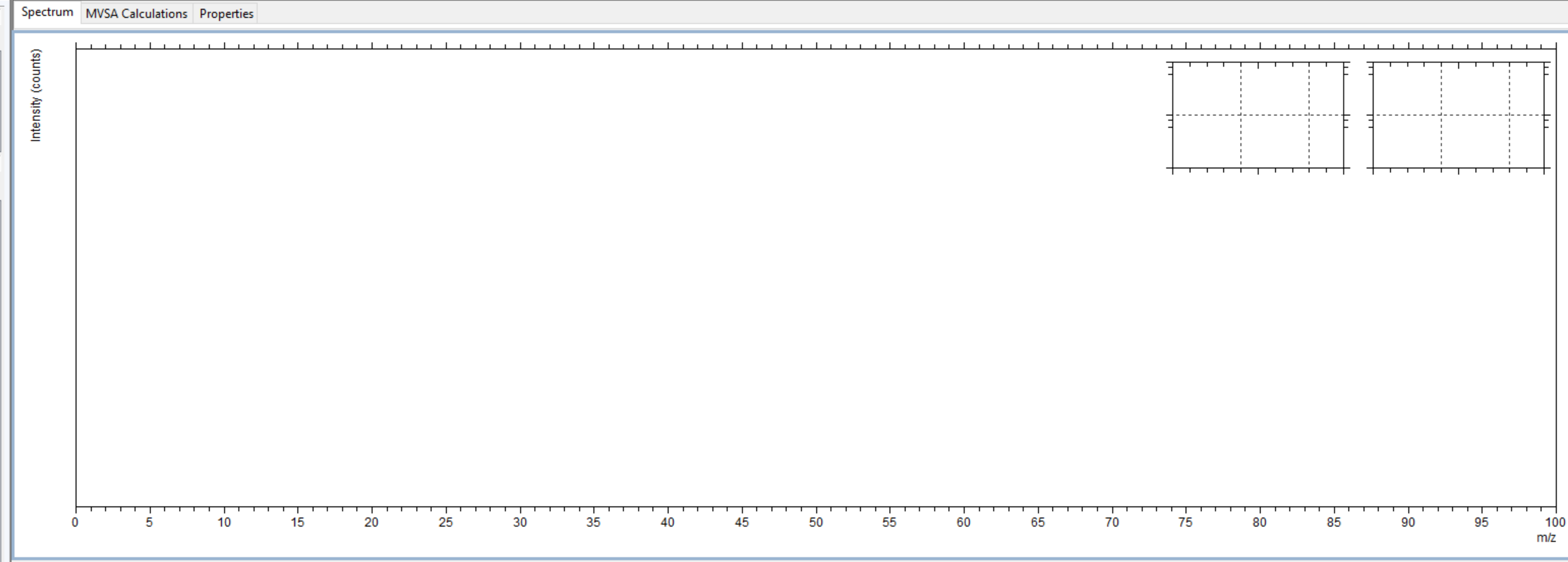
Compilations

m/z  Dev. (ppm)

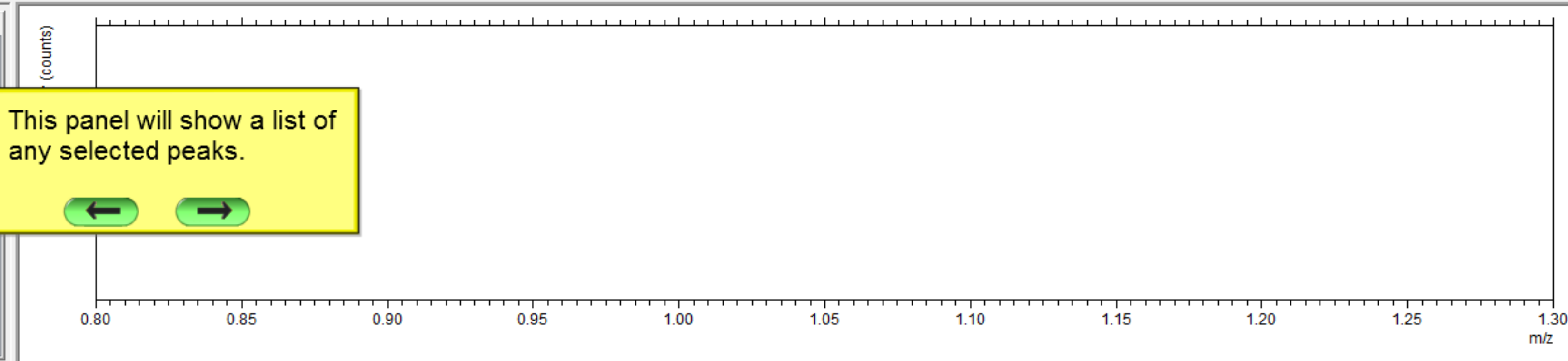
**Spectra**

Spectra

Mass Interval Lists



V	No.	m / z	Area (a. u.)	Color



This panel will show a list of any selected peaks.

← →

- Open Spectrum... Ctrl+O
- Open Compilation...
- Save
- Export...
- Import...
- Convert SurfaceLab 6 Data...
- Print... Ctrl+P
- Print Preview
- Batch Print...
- Batch Print To File...
- Exit

The menus at the top provide access to the various functions within each program.

The menus also list hotkey combinations that can be used to access certain functions.

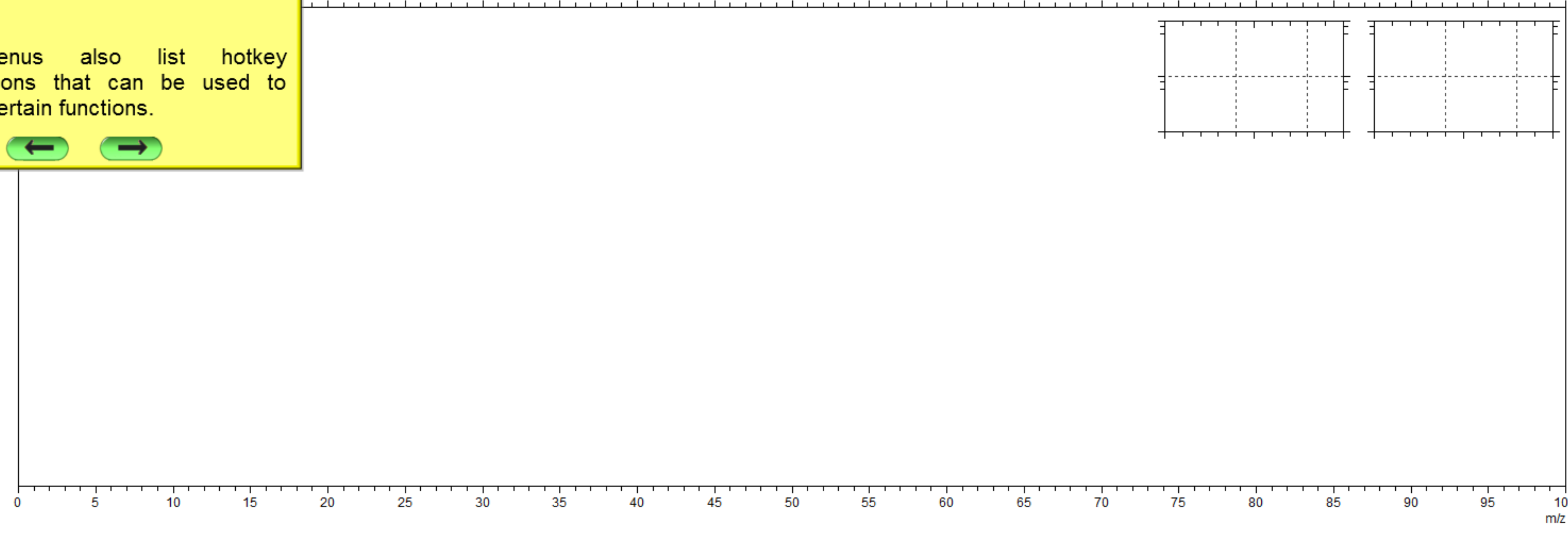


Find:

Area (cts)  Explained (%)

Resolution

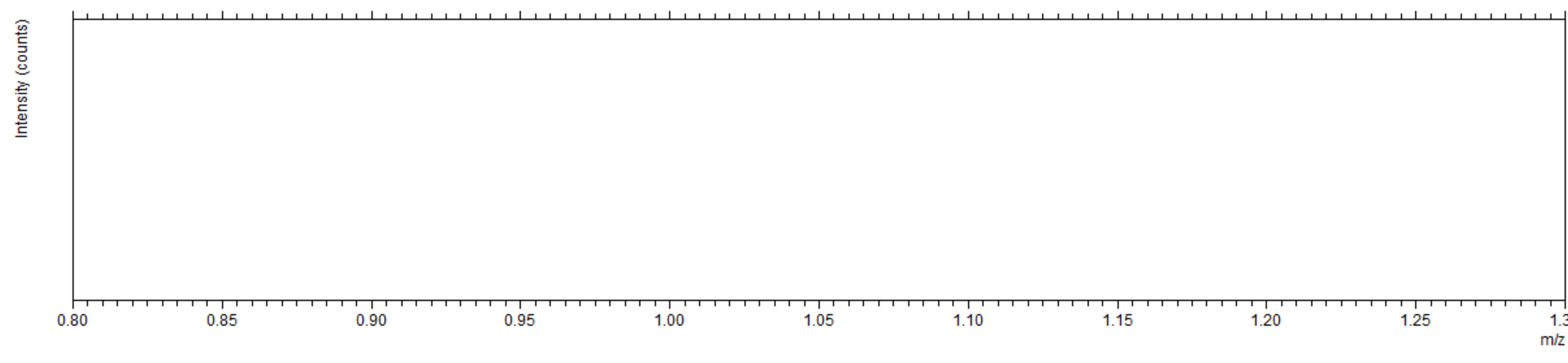
Width (ns)



Mass Interval Lists

V	No.	m/z	Area (a. u.)	Color
---	-----	-----	--------------	-------

V	No.	m/z	Area (a. u.)	Color
---	-----	-----	--------------	-------



The menus at the top provide access to the various functions within each program.



Check... Add Peak m/z Dev. (ppm)

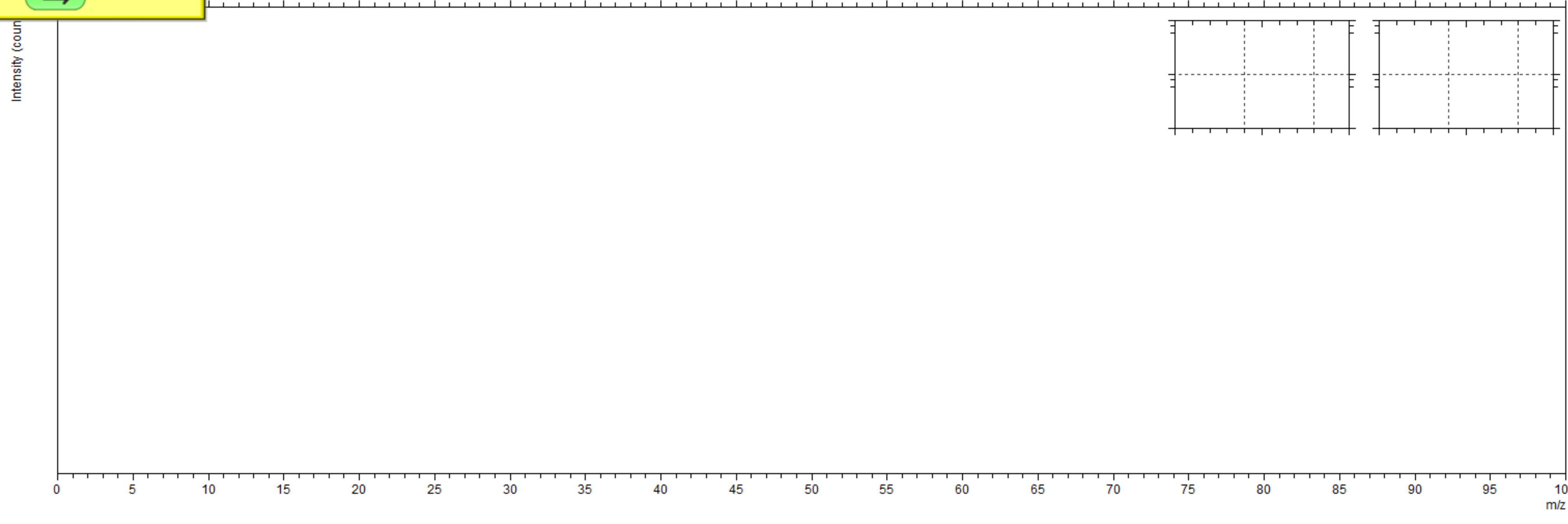
Compilations

Spectra

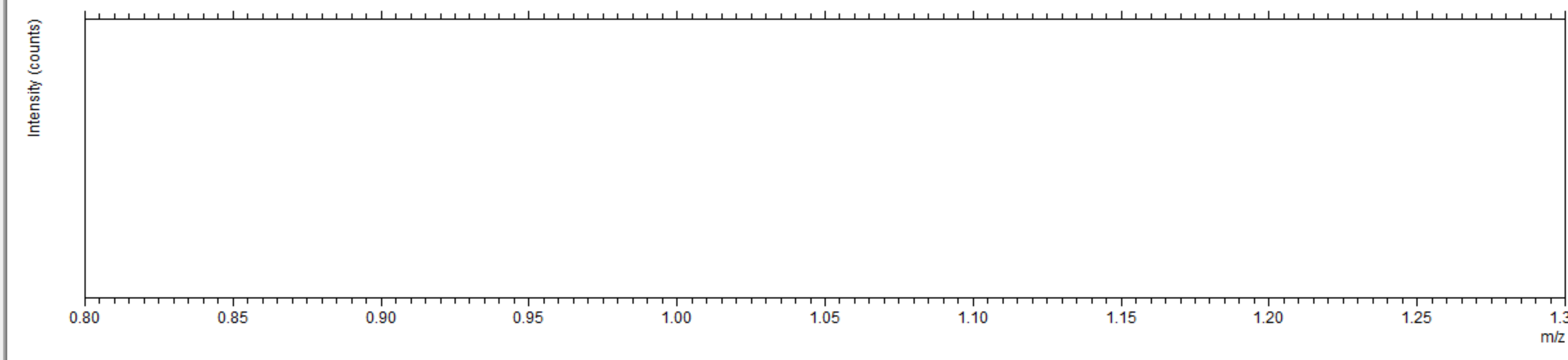
Spectra

Mass Interval Lists

Explained (%) Resolution Width (ns)

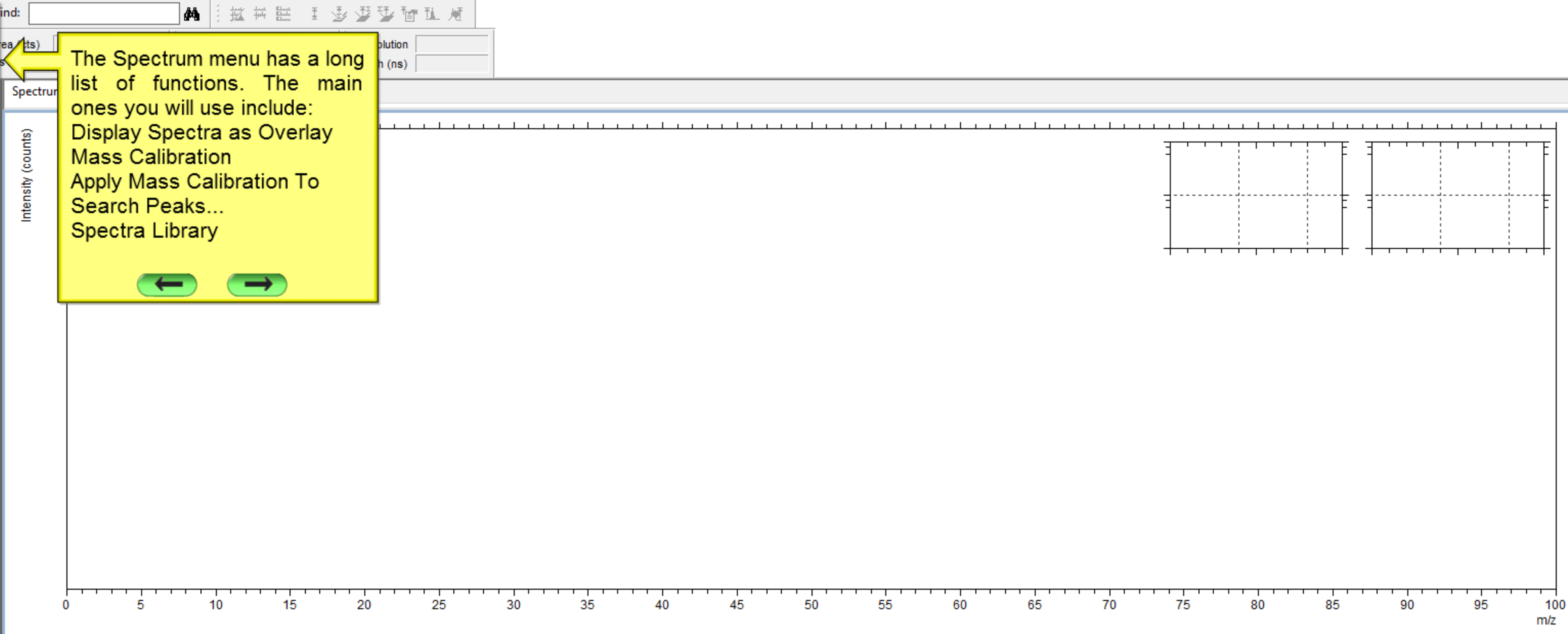


V	No.	m/z	Area (a. u.)	Color

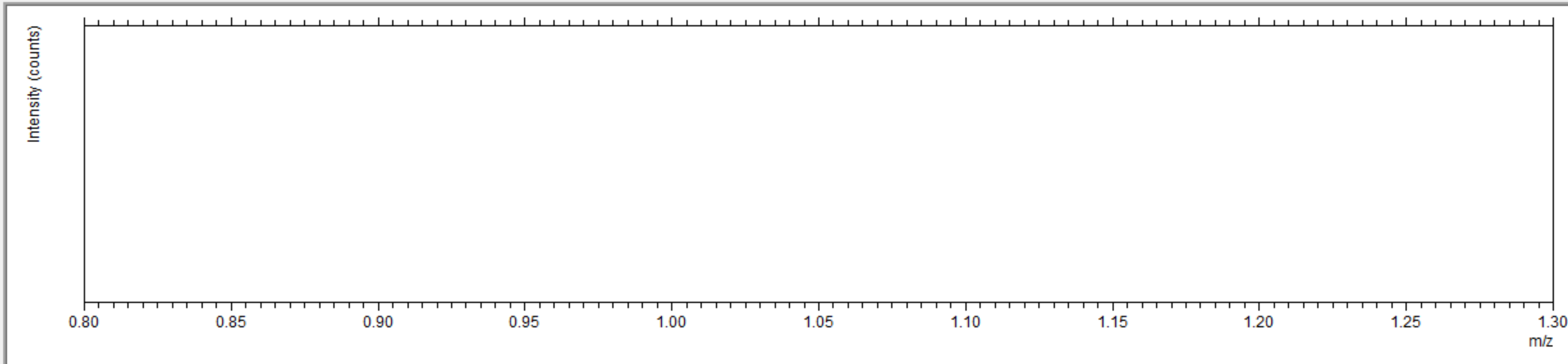


- Display Spectra As Line Spectra S
- Combine Line Spectra...
- Display Spectra as Overlay Z
- Spectra Overlay Options >
- Mass Calibration ... F3
- Apply Mass Calibration To >
- Find Mass Ctrl+F
- Find Compound... Ctrl+G
- Add selected Peak Ctrl+A
- Add Background to selected Peak(s)
- Calibrate PeakSearcher
- Search Peaks...
- Search Elements...
- Search Compounds...
- Mass Shift Correction...
- Add Lateral ROIs To >
- Replace Lateral ROIs Of >
- Copy z-ROIs To >
- Add Interval Subsets To >
- Replace Interval Subsets Of >
- Show Analysis Peaklists
- Create G-SIMS Spectrum...
- Show G-SIMS Spectrum...
- Apply Smooth
- Smooth Properties...
- Element Information...
- Isotope Cluster Calculator...
- Spectra Library
- Add to Spectra Library
- Scale Spectra
- Scale Spectra by >

The Spectrum menu has a long list of functions. The main ones you will use include:  
Display Spectra as Overlay  
Mass Calibration  
Apply Mass Calibration To  
Search Peaks...  
Spectra Library



V	No.	m / z	Area (a. u.)	Color





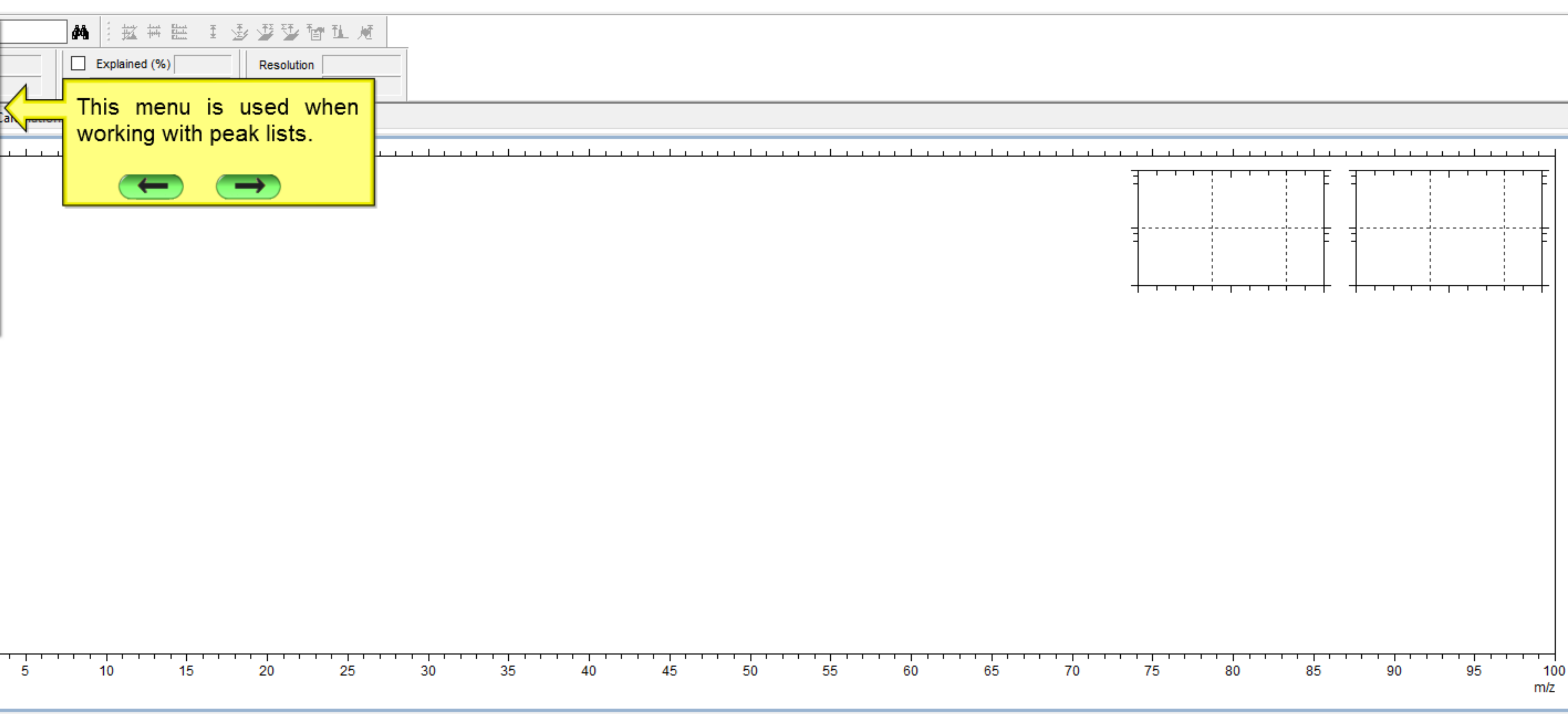
Check... Add Peak m/z Dev. (ppm)

Compilations

Spectra

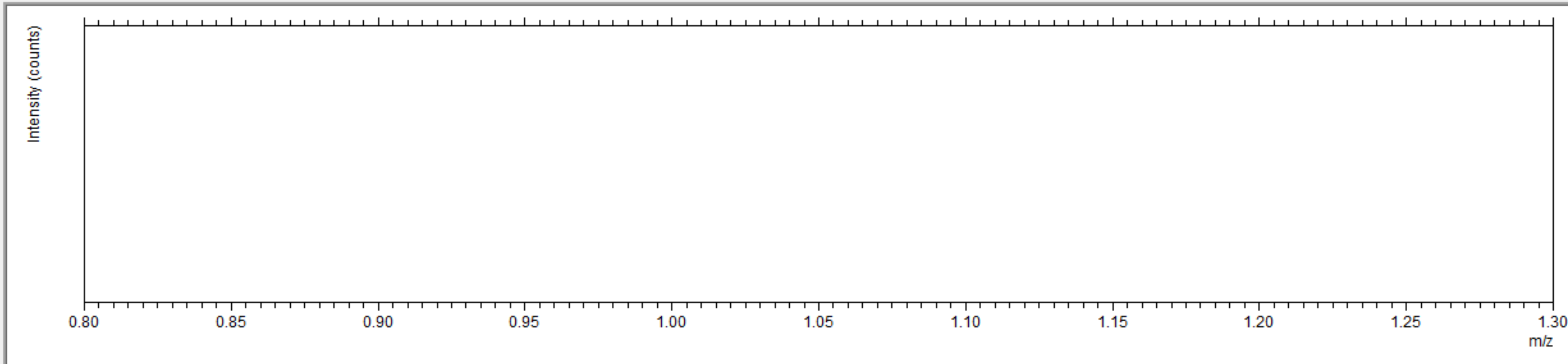
Spectra

- Save As Mass Interval List
- Add To
- Replace All Existing Peak Lists Of
- Export
- Copy
- Remove
- Mathematics...
- Statistics...
- Create Nominal Mass Binning...
- Reorder IDs
- Show All Lists/Active List
- Properties...



Mass Interval Lists

V	No.	m / z	Area (a. u.)	Color



Check... Add Peak m/z Dev. (ppm)

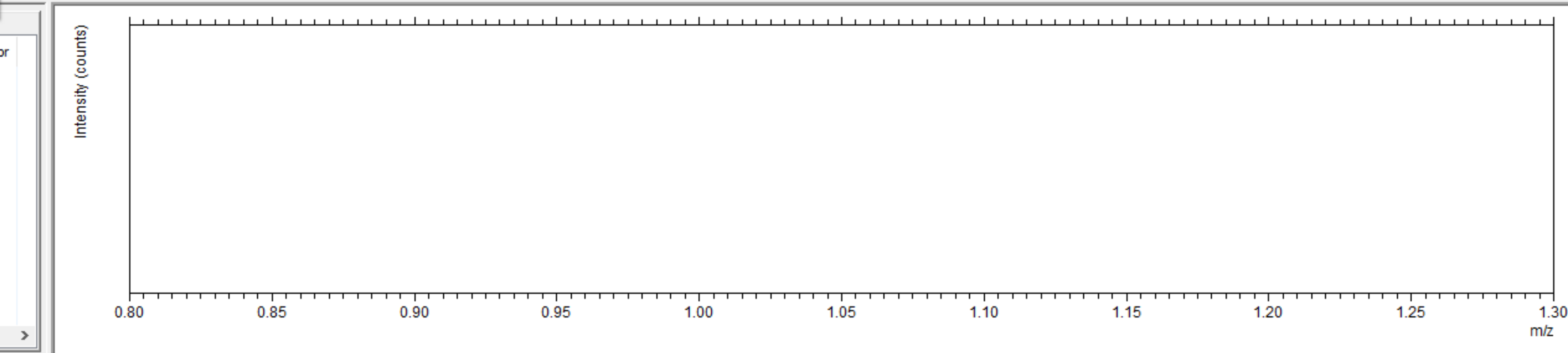
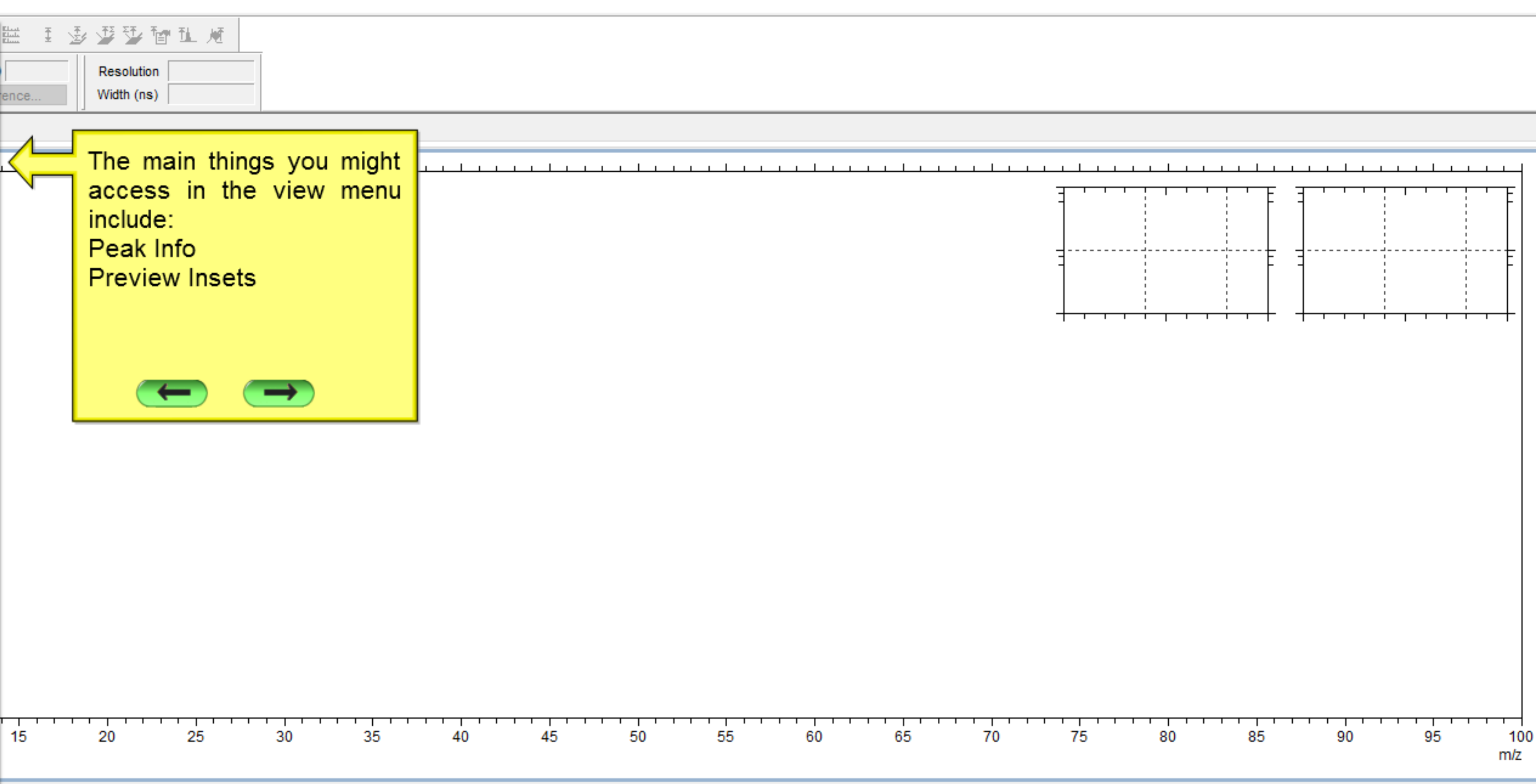
Compilations

Spectra

Spectra

Mass Interval Lists

- Horizontal
- Vertical
- Compact
- Toolbar
- Find Toolbar
- Overlay Toolbar
- Peak Info >
- Reset Layout
- Preview Insets >
- Peak List F5
- Data List
- Status Bar
- Next Panel F6
- Previous Panel Shift+F6
- Spectrum Mass Range M
- Rescale Vertical Scale N
- Binning B
- Automatic Rescale Overview
- Automatic Rescale Detail View
- Integral/Differential D
- Spectrum Refresh Rate... R
- Show Peak Filling
- Show Uncorrected (Deadtime correction)
- Use EDR Correction
- Change Labels in Data List...
- Settings ...



The main things you might access in the view menu include:  
Peak Info  
Preview Insets



Check... Add Peak m/z Dev. (ppm) ?

- Open TOF-SIMS Help
- Open Hybrid SIMS Help
- Open LEIS Help
- Open SPM Help

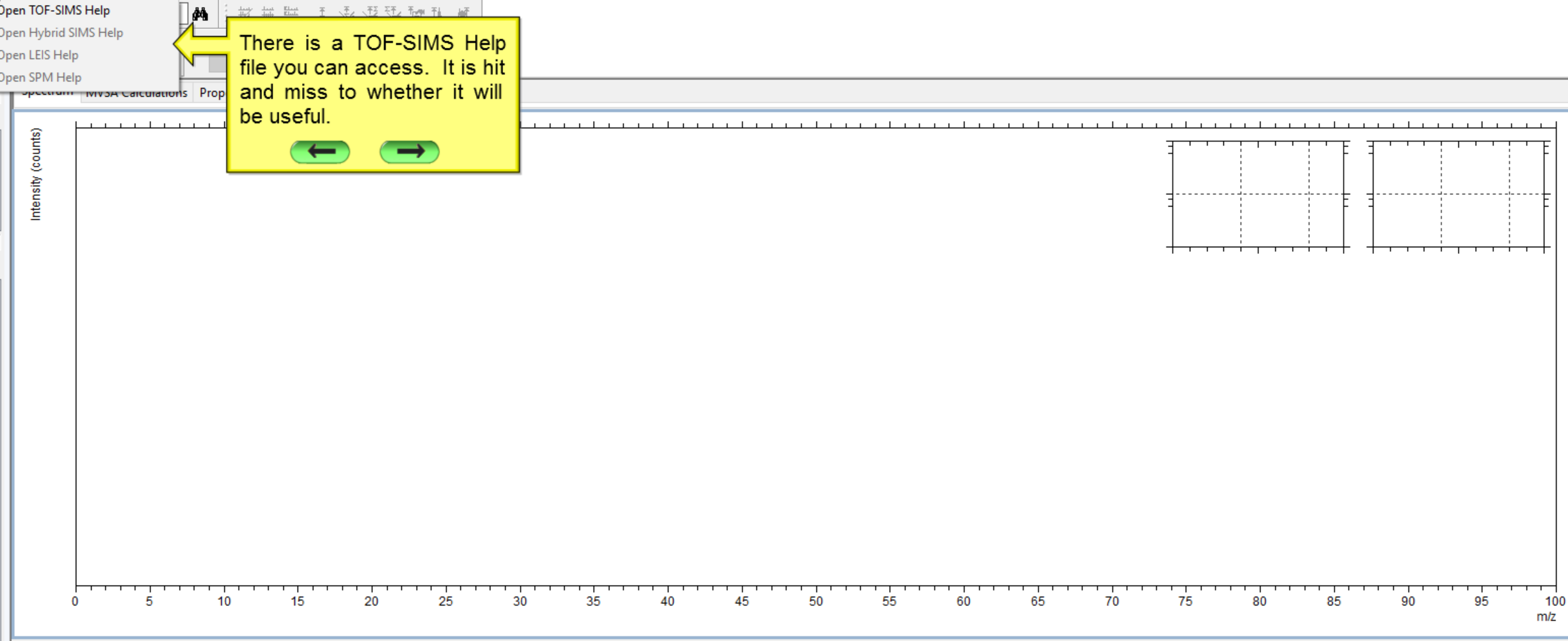
There is a TOF-SIMS Help file you can access. It is hit and miss to whether it will be useful.

← →

Compilations Spectra

Spectra

Mass Interval Lists



V	No.	m / z	Area (a. u.)	Color

