This tutorial contains navigation buttons that enable you to move throughout the tutorial.

Please use the navigation buttons and not the page up/page down or arrow keys to navigate through the tutorials.

This is the 'Next' button. It takes you to the next frame or stop point.

This is the 'Previous' button. It takes you to the previous frame or stop point.

This is the 'Go to frame' button. It takes you to a specified frame.

This is the 'Go to URL' button. It takes you to a website link.

Press the 'Next' button below to start this tutorial.
This tutorial will cover how to use the image peak ratio panel.

This panel allows you to create a ratio of peaks for every pixel within an image.

The resulting ratio is displayed as a peak ratio image. This peak ratio image can be exported and saved to a file.

Image peak ratios can be useful when looking at the relative amounts of the chosen peaks across an image.
From the 'Data Display' menu choose -> 'Plot image peak ratio'
The image peak ratio panel opens.

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.
Select the data you want to use from the drop down menus above and press the 'Load Selected Data' button.

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.

- Calculate peak ratio
- Save plot to file
- Make ext figure

Close
Choose which peak will be used for peak 1. The ratio will be calculated as: Peak1/Peak2.

Value of Peak 2 is zero for that pixel ratio is set to zero.

Calculate peak ratio

Close
Data Selection Panel

Name of Image Matrix: imagedata_s214...
Name of Variable Matrix: exactmass_s2149...

Load Selected Data

Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos

Choose Peak1: 73.0656
Choose Peak2

Choose one

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.

Calculate peak ratio

Save plot to file

Make ext figure

Here we will choose the 73 peak. This is a PDMS peak.

After selecting the peak, the peak image appears in the plot below the drop down menu.
For peak 2 we will choose 23 (Na).

After selecting the peak, the peak image appears in the plot below the drop down menu.

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.

Calculate peak ratio
Data Selection Panel

Name of Image Matrix: imagedata_s214...
Name of Variable Matrix: exactmass_s2149...

Load Selected Data
Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos

Choose Peak1: 73.0656
Choose Peak2: 22.9923

If a value of Peak 2 is zero, the value for that pixel ratio is set to zero.

Calculate Peak ratio

Press the 'Calculate peak ratio' button.

Save plot to file
Make ext figure

Close
Data Selection Panel

Name of Image Matrix: imagedata_s214...
Name of Variable Matrix: exactmass_s2149...

Load Selected Data

Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos

Choose Peak1: 73.0656
Choose Peak2: 22.9923

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.

Calculate peak ratio

Close

A progress bar will show how long it will take to calculate the ratio.

Estimated time remaining: 00:00:06
When the calculation is finished the peak ratio image will be displayed in this box.

The peaks used in the ratio will be shown at the top of the figure.

Here we see the ratio of the 73 (PDMS) to 23 (Na) peak. For this data set this shows that the PDMS and Na are mostly located in different areas. Where Na is highest there is little PDMS Signal.

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.

Calculate peak ratio
Load Selected Data

Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos

Choose Peak1: 73.0656
Choose Peak2: 22.9923

If a value of Peak 2 is zero the value for that pixel ratio is set to zero.

Calculate peak ratio

Save plot to file

Press the 'Save plot to file' button to save a copy of the peak ratio image.

Close
The image is saved to the specified file in the specified location.
Data Selection Panel

Name of Image Matrix: imagedata_s214...
Name of Variable Matrix: exactmass_s2149...

Load Selected Data

Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos

Choose Peak1: 73.0656
Choose Peak2: 22.9923

If a value of Peak 2 is zero, the value for that peak ratio should be set to zero.

Calculate peak ratio

You can also export the data to an external Matlab figure. To do this, press the 'Make ext figure' button.
The image is exported to a Matlab figure window. You can then make any changes and save it as desired.

If a value of Peak 2 is zero, the value for that pixel ratio is set to zero.

Calculate peak ratio

Save plot to file

Make ext figure

Load Selected Data

Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos
Data Selection Panel

Name of Image Matrix: imagedata_s214...
Name of Variable Matrix: exactmass_s2149...

Load Selected Data
Image: imagedata_s2149_allpos
Variables: exactmass_s2149_allpos

Choose Peak1: 73.0656
Choose Peak2: 22.9923

If a value of Peak 2 is zero, the value for that pixel ratio is set to zero.

Calculate peak ratio
Save plot to file
Make ext figure

When you are done, you can close the panel by pressing the 'Close' button.
Data Selection Panel

<table>
<thead>
<tr>
<th>Name of Image Matrix</th>
<th>Name of Variable Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>imagedata_s214...</code></td>
<td><code>exactmass_s2149...</code></td>
</tr>
</tbody>
</table>

That ends this tutorial. Press the button on the left to go back to the previous step. Press the button on the right to start the tutorial over.