

## Package Content

### *iSpectra Files:*

This folder contains *iSpectra.ipf* and the corresponding *iSpectraManual.pdf*.

### *Sample Data:*

The folder contains the Lispix spectral imaging (SI) file pair *TestCube.raw* and *TestCube.rpl*. See chapter "Spectral Image (SI) Import" of the manual. The test data is a miniature version (100 x 66 pixels x 1500 channels) of the spectral image shown in the manual. The acquisition properties to be entered in the import dialogue are:

Acceleration Voltage (keV): 15

Time per frame (s): 60

Number of frames: 600

Magnification: 350

The file *TestCube\_BSEImage.tif* is a back-scattered electron image of the specimen surface and can be loaded using the "Load SEM TIF Image" menu option.

*ExtractedSpectrum.emsa* is an EDS spectrum that was extracted from the present data set and contains a text header that is required when exporting cumulative phase spectra from iSpectra. See "Exporting Spectra and Results" in the manual for details.

The file *TestCube\_History.itx* is a text wave and can be used to reproduce the pixel-to-phase assignment shown in the folder ***SampleData\_iSpectraResults*** which is produced using the "Full Export" menu option. The folder contains cumulative group spectra (as \*.emsa file), various images and a "Summary.htm" which can be opened with a standard internet browser to review the graphical output.

An additional SI data set can be found under:

<http://www.nist.gov/lispix/doc/dnld/data-cubes.htm>

Look for the *Raney Nickel spectral image*. Download both, the *Cube* and the *rpl file*. They need to be located in the sample folder. Make sure the rpl file keeps its \*.rpl extension, otherwise import will fail. The acquisition properties should be something like the following (derived from the provided information):

Acceleration Voltage (keV): 20

Time per frame (s): 60

Number of frames: 850

Magnification: 1000

Note that magnification vs. image size (in microns) needs calibration, so the image scaling is likely not correct.