# Multiple Hits (by A. London)

## saxeyPlot

Usage:

$saxeyPlot

Behaviour:

Pop up asks for epos file location, once selected a 2D correlation histogram (Saxey plot) is produced in a figure window.

## epos2posFile

[newFileName] = epos2posFile(filename)

Usage:

$epos2posFile

filename argument is optional.

Behaviour:

A pop asks for an epos file, the epos file is opened and a new pos file is saved. This new pos file (name returned by the function), contains single hits in the 0-200 Da range and multiples in the 200 – 400 range with a m/z+200. Therefore, multiple hit with m/z = 28 is 228 in the new pos file.

Alternatively you can use epos2posFile2 which creates two separate pos files, one with singles and another with multiples only.

## epos2posFile2

[newFileName] = epos2posFile2(filename)

Usage:

$epos2posFile2

filename argument is optional.

Behaviour:

A pop asks for an epos file, the epos file is opened and a new pos file is saved. Creates two separate pos files, one with singles and another with multiples only.

## readepos

Usage:

$[x,y,z,m,tof,vdc,vp,xd,yd,dP,nm,nb]=readepos(filename no extension)

Used to read an EPOS file. Returns:

* x Reconstructed position along the x-axis (nm)
* y Reconstructed position along the y-axis (nm)
* z Reconstructed position along the z-axis (nm)
* m/n Reconstructed mass-to-charge-state ratio (Da)
* TOF Raw time-of-flight (ns)
* VDC Standing voltage (V)
* VP Pulsed voltage (V). For laser runs, this is zero
* XDET Ion impact x-coordinate at the detector (mm)
* YDET Ion impact y-coordinate at the detector (mm)
* DP Number of pulses since the last detected ion (pulses)
* For multi-hit records, after the first record, this is zero
* NM Hit multiplicity (ions), 1 for singles, n for the first n-multiple and 0 subsequently
* For multi-hit records, after the first record, this is zero
* nb is the total number of hits