Mike Wong

Online site for SAM-related scripts contributed by Mike Wong (generally atmospheric). See also Melissa Trainer's page.

Igor scripts for SAM data anaylsis

Background Correction

Things to do to your data before using
this BG script:

- Import SAM data into Igor as waves: one wave for the time series, one for the cps
- Apply your own deadtime correction to the data
- Figure out what experiment interval you'll use for the BG correction, convert to sec if needed
- Determine whether BG interval is better fit by a constant or a decaying exponential

What this BG script does:

- Fit BG to selected interval
- Create a new, BG-corrected wave
- Create a new BG-uncertainty wave (same value at every point)
- BG correction applied is constant (i.e., choosing exponential BG only helps determine accurate constant BG level)
- BG uncertainty is empirically based on scatter in data within BG region
- Some details of BG fit are stored in the "Notes" field of the new BG-corrected wave

Example screen shot:

Bg.ipf.screenshot.png

Subtract Contamination

Things to do to your data before using this subtraction script:

- Import SAM data into Igor as waves: one wave for the time series, one for the cps
- Apply your own deadtime and background correction to all data used
  What this subtraction script does:
- Iterpolate parent cps to timesteps of daughter m/z
- Create new wave, `[new] = [daughter] - frac * [parent]`, where frac is the user-specified expected daughter/parent count ratio
  Example screen shot:

Killfrag.ipf.screenshot.png

Make Count Ratio

Things to do to your data before using this ratio script:

- Import SAM data into Igor as waves: one wave for the time series, one for the cps
- Apply your own deadtime and background correction to all data used
  What this ratio script does:
- Interpolate numerator cps to timesteps of denominator m/z
- Create new wave, ratio of the input waves

Example screen shot:

Makeratio.ipf screenshot.png

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