

NOW IN DAVE

# TRIPLE-AXIS SPECTROMETER DATA REDUCTION

Triple Axis Spectrometer Data Reduction

FILE PLOT MISC

Data Group

- Signal Data
  - lacam024.bt9
  - lacam025.bt9
- Background Data
  - lacam016.bt9
  - lacam017.bt9
- Intermediate Steps
  - lacam016\_add\_subtracted\_fbg\_sym\_moncor\_cal.bt9
- Combined Data

Number of Gaussians

# of Gaussians: 2

Dismiss

PROGRAM STATUS/INFORMATION

Zooming-> Hold down left mouse button, drag rubberband box, and release button. Autoscale-> Press right mouse button

Hide/Show File Info

```
LACAM025.BT9 '22-JUN-2002 01:48' Q' 745572. 5 'NEUT' 16 'RAW'
Filename Date Scan Mon Pri Base #pts Type
lacam La.7Ca.3MnO3 elastic scan
40 40 80 99 0 0 0 1 0 0 0.000 0 1 0
Collimation Mosaic Xstal Orientation
3.864 3.864 3.864 90.000 90.000 90.000
Lattice Parameters in real space
0.000 -0.200 14.700 3.354 3.354 325.0000 0.00000
E center Delta E EA fixed M-dsp A-dsp Tmp strt Tmp inc
2.250 1.750 0.000 0.0000 0.0000 0.0000 0.0000
Q (hkl scan center) Delta Q (hkl) Hfield
Q(x) Q(y) Q(z) E T-act min Counts
```

Reduction Preferences

- Fast Background Subtraction CTS/MIN 0.000000
- Overall scale factor Scale value 1.00000
- Detailed balance
- Monitor correction
- Resolution correction
- Monitor normalization
- Sum signal files
- Sum background files
- Difference of signal and background sums
- Save intermediate steps

Subtraction interpolation method

- If necessary use data binning
- If necessary use linear interpolation
- If necessary use cubic interpolation

RESTORE PREFS SAVE PREFS REDUCE DISMISS

- s Rapidly reduce many data sets at once
- s Convenient tree-view for easy file browsing and multiplotting
- s Combine many data sets as a function of any measured quantity (e.g. T, H, Qi) to facilitate parametric investigations
- w Correct data for instrumental resolution, beam contamination with higher order harmonics, detailed balance, calibration/scale factor, monitor normalization

- w Customize data reduction preferences with save/restore option
- w Save and view all of the intermediate reduction steps
- w Save reduced data as text, DAVE or colored postscript output
- w Send your time-domain data directly into PAN for analysis
- w Rapid automatic fitting of up to 10 Gaussians or 10 Lorentzians

NIST Center for Neutron Research

# DAVE

Data Analysis and Visualization Environment

For more information about this application, contact Rob Dimeo (ext 8135, robert.dimeo@nist.gov)

For more information about the DAVE software and how to download it for your computer, please visit us at [www.ncnr.nist.gov/DAVE](http://www.ncnr.nist.gov/DAVE)

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