Marco's weekly pixel meeting report

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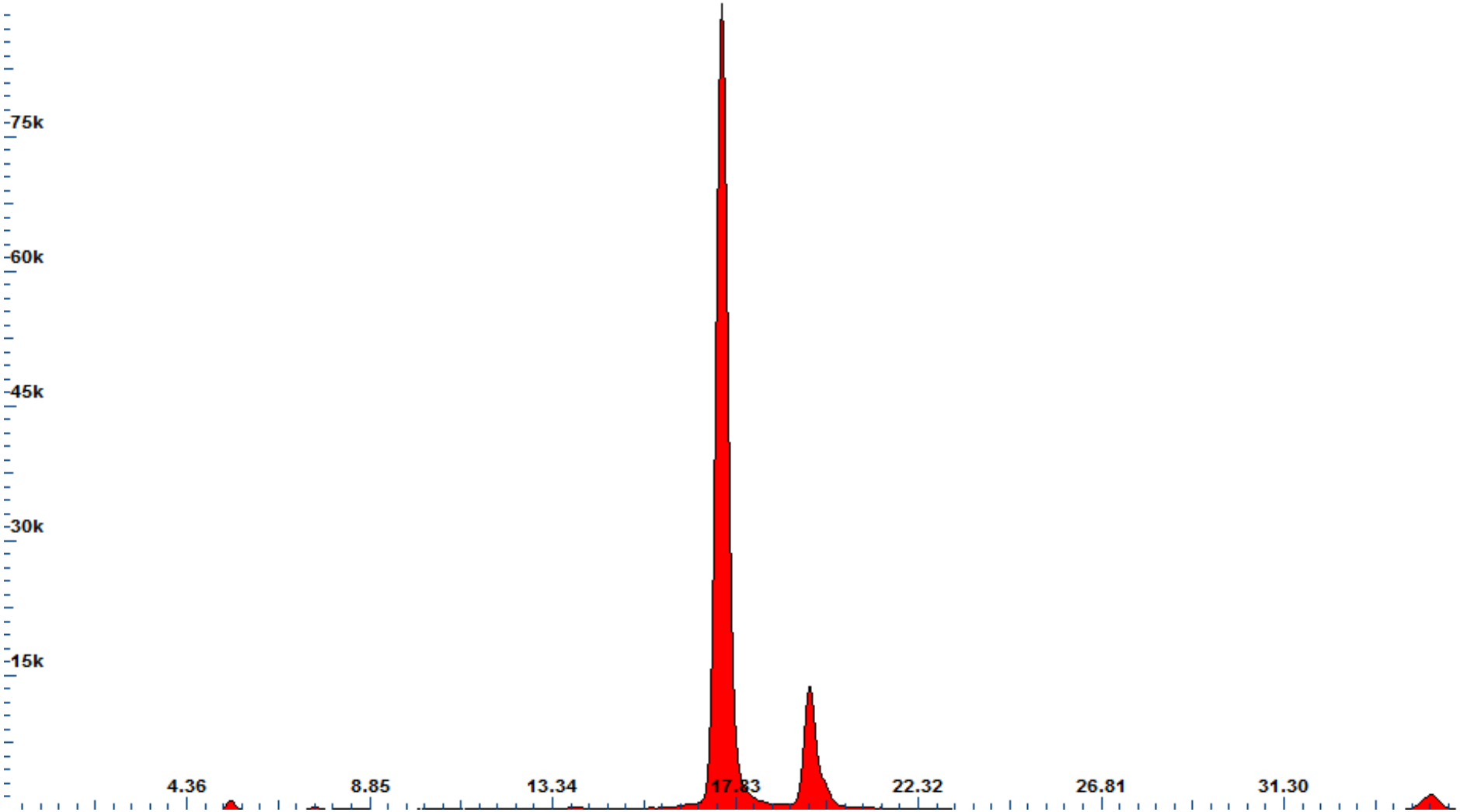
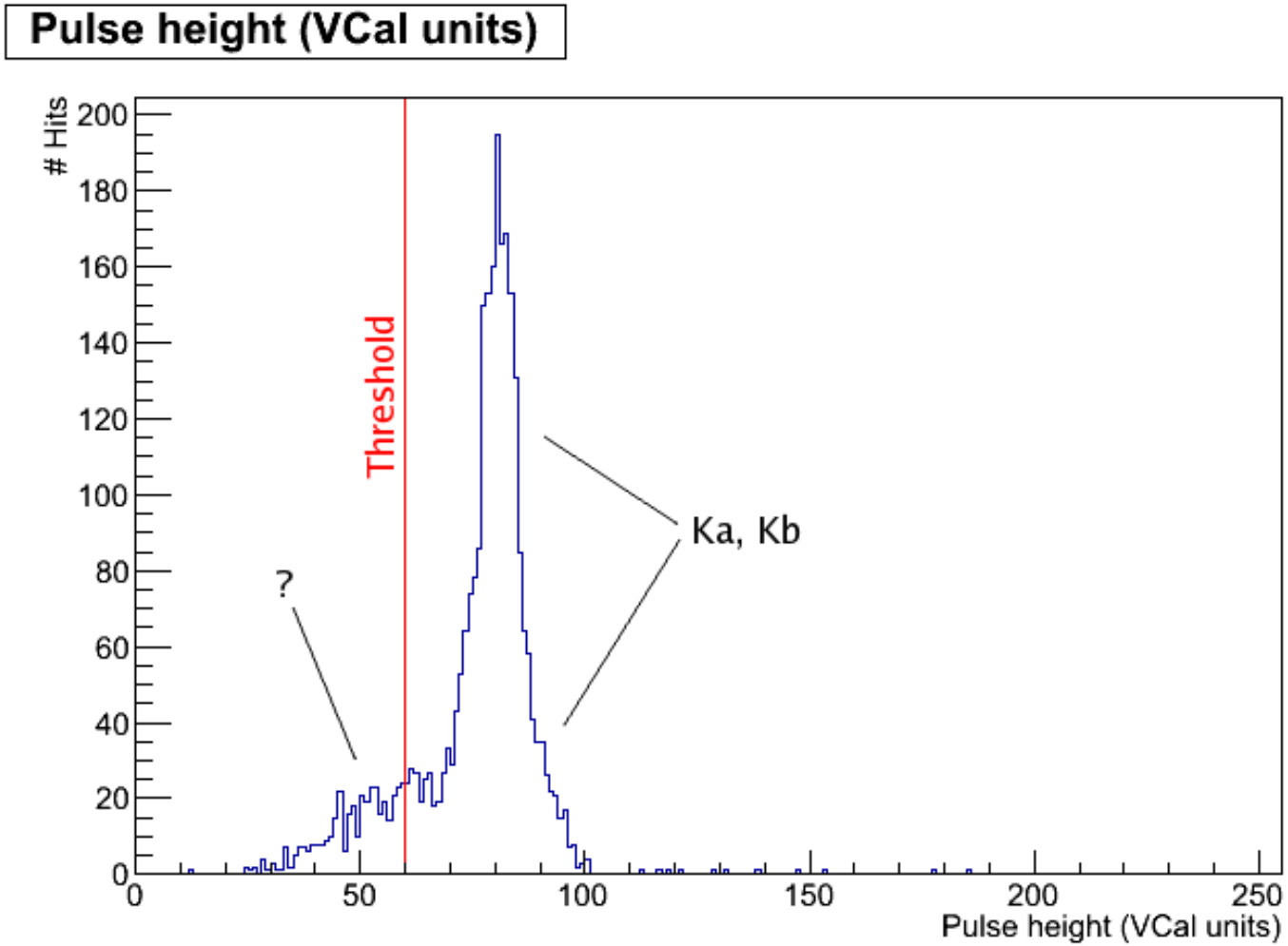
Fluorescence spectrum

Molybdenum target, $k_\alpha = 17.48$ keV, $k_\beta = 19.61$ keV



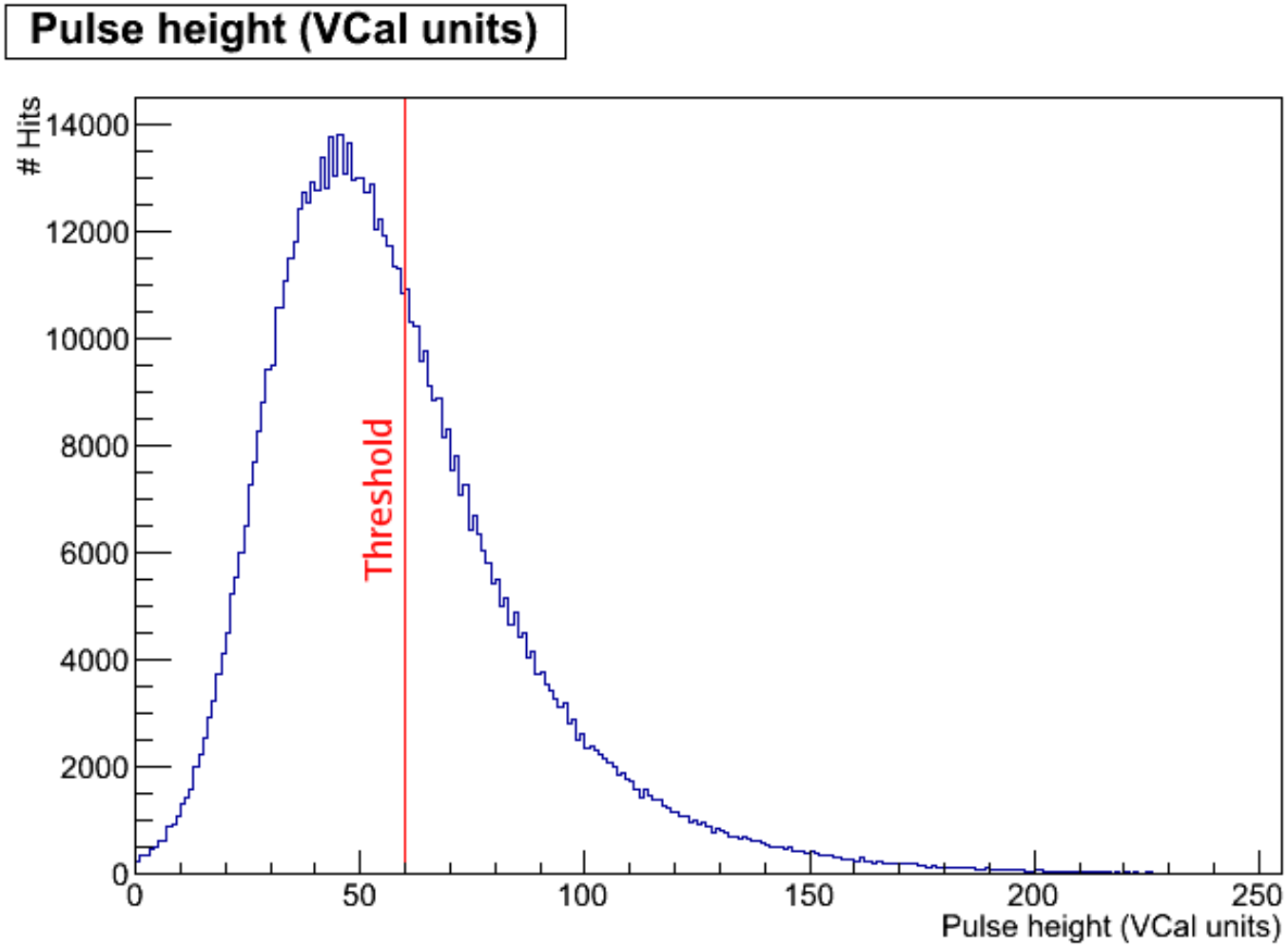
Pulse height with mono(dis)-chromatic x-rays (Mo)

Requires pulse height/gain-calibration



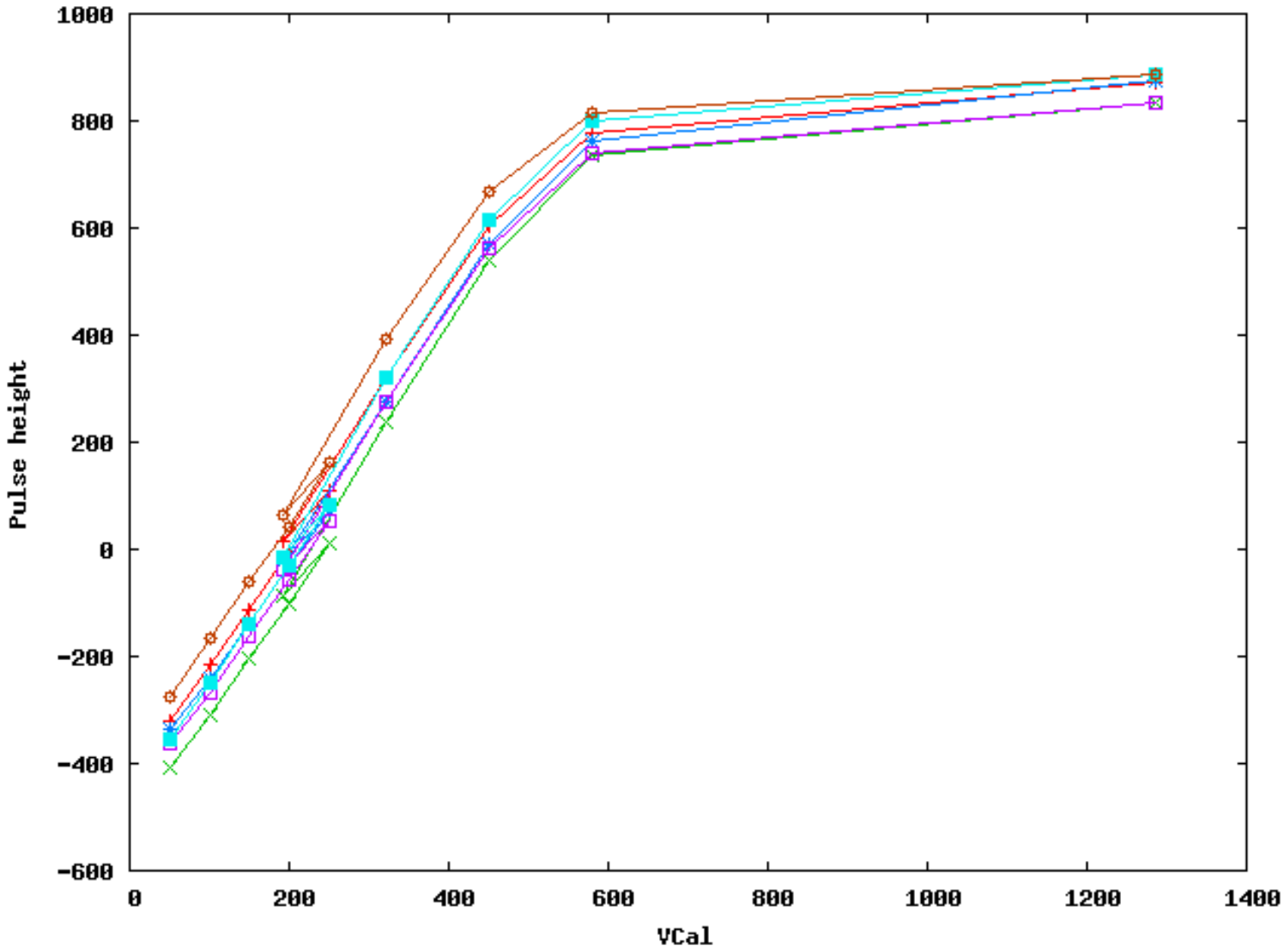
Pulse height with direct beam

Requires pulse height/gain-calibration

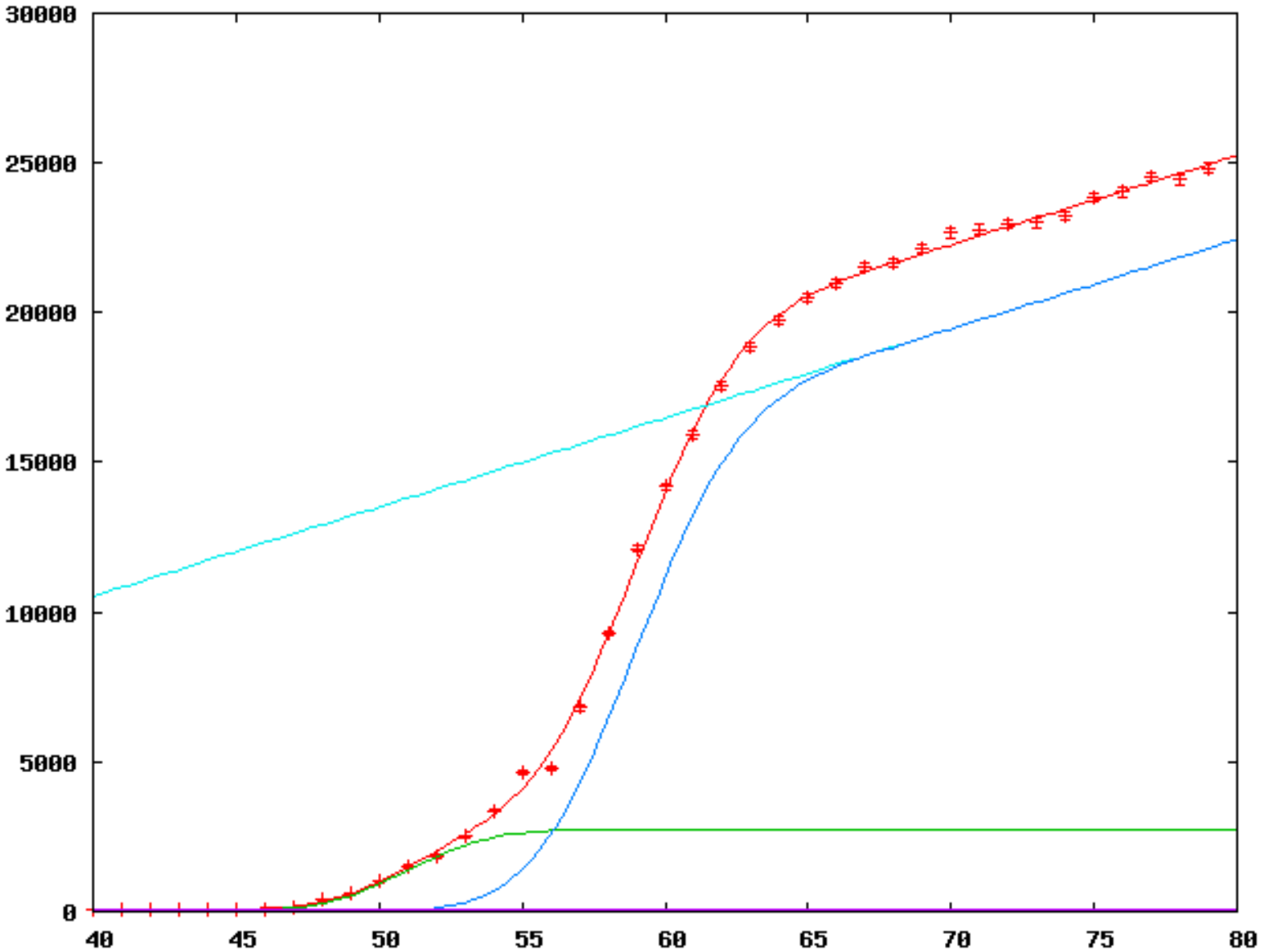


Pulse height calibration

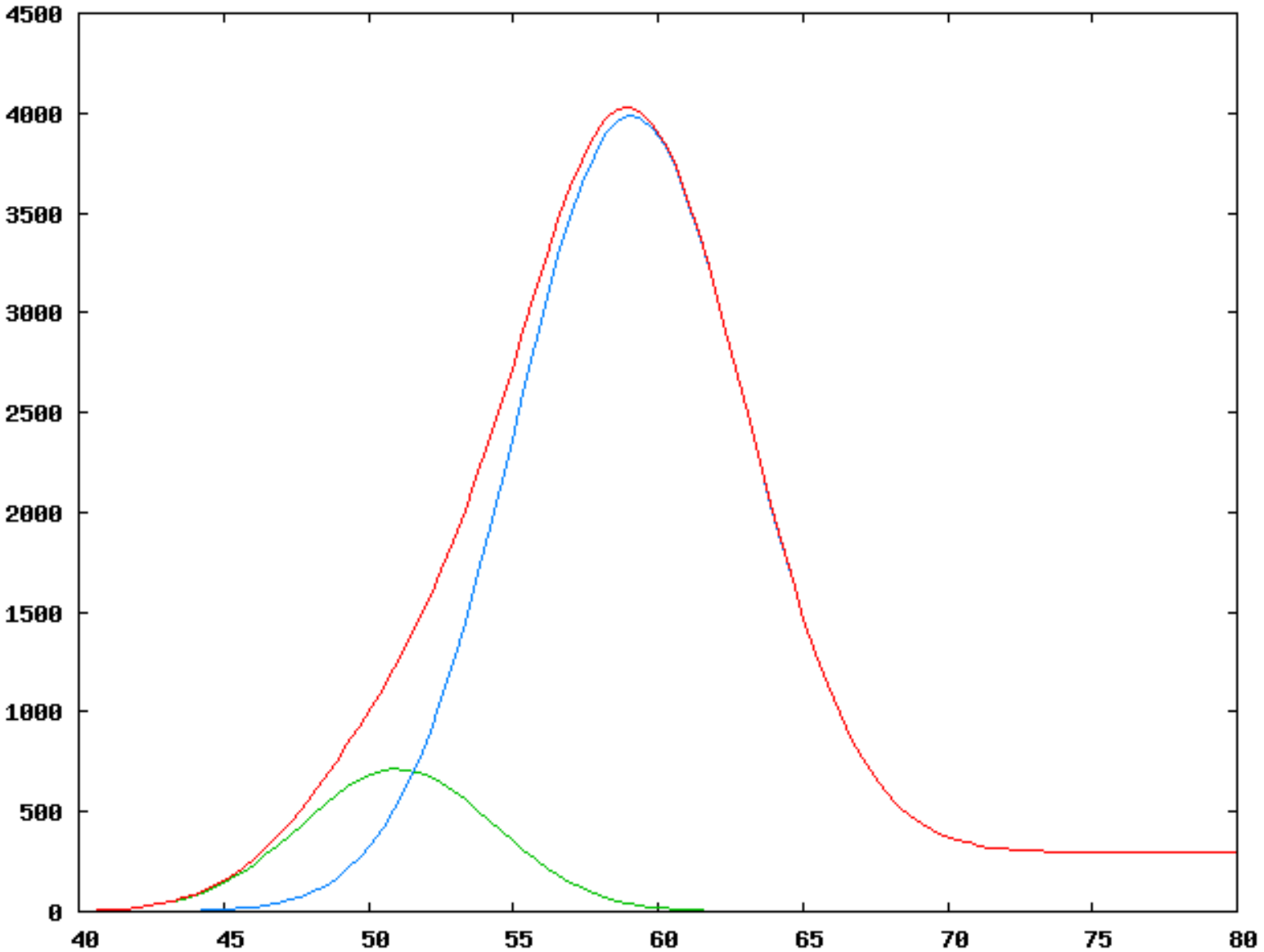
Calibration using only lower part of curve (linear)



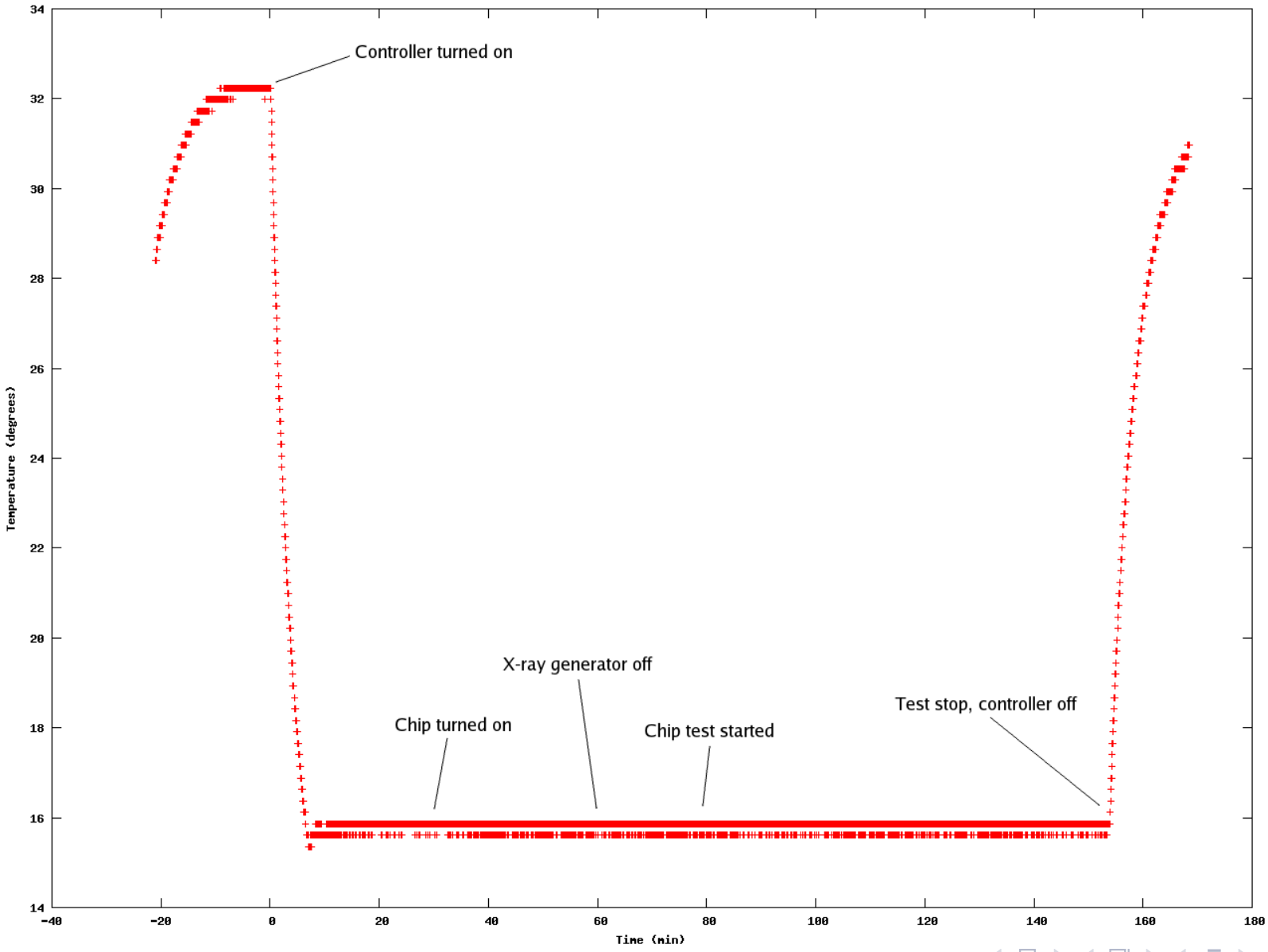
S-curve test from threshold scan



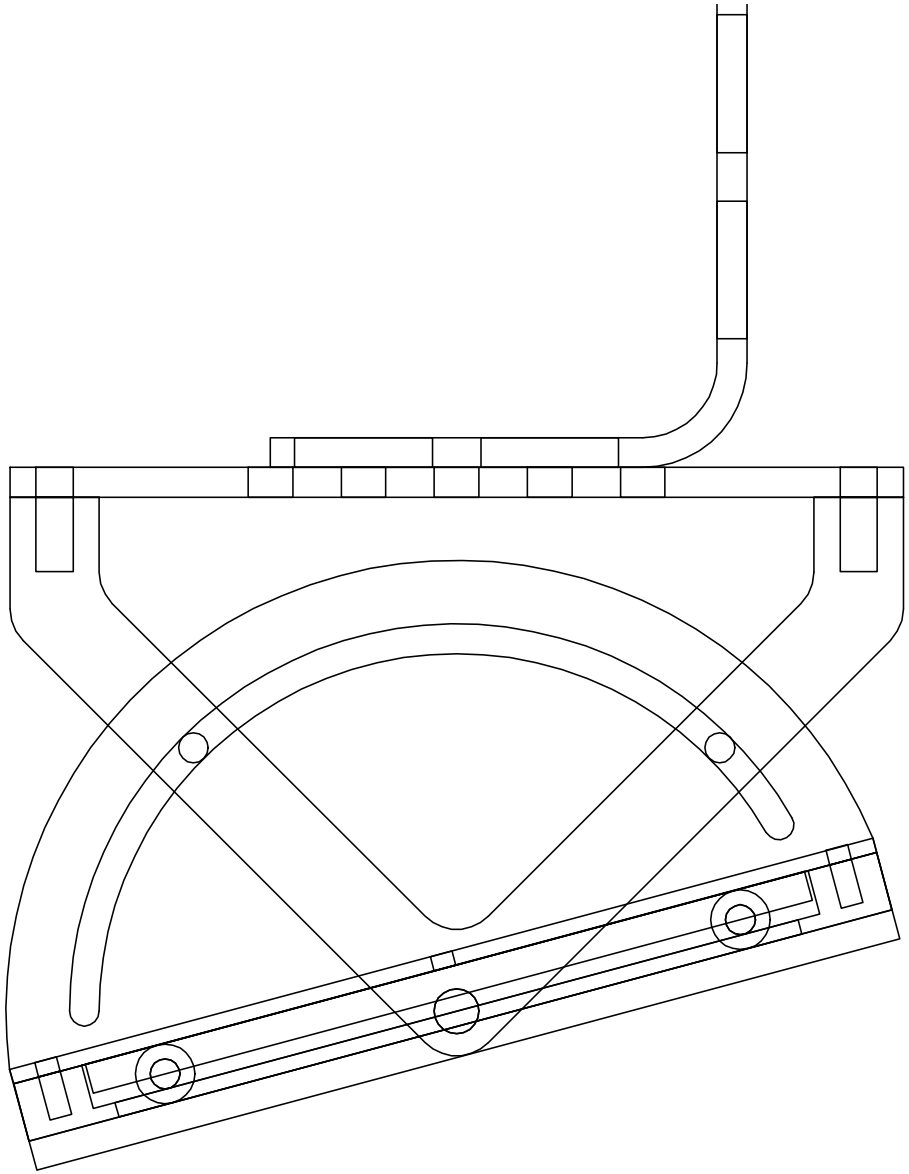
Spectrum from s-curve fit



Single ROC setup for x-ray: temperature control



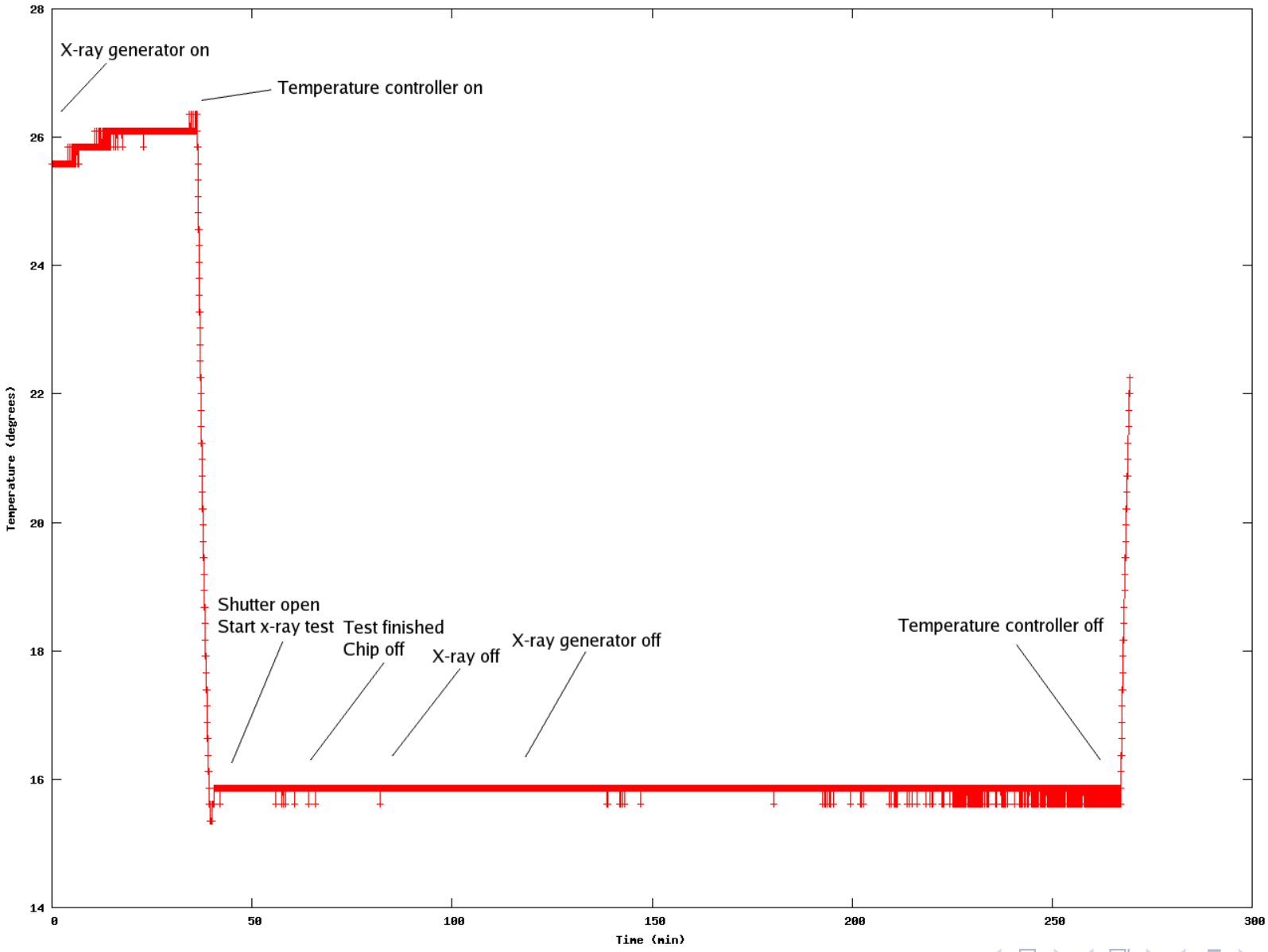
Fluorescence setup



Fluorescence setup

Zaber T-LSR300D, Travel: 300 mm, Price: 2440 CHF

Single ROC setup for x-ray: temperature control



Time plan until June

- March
  - Items for fluorescence setup ordered, received, assembled
  - Spectrum measurements of new fluorescence setup (student)
  - VCal calibration of single chips with small source
  - Prepare for tracker week (temperature + xray)
- April
  - Tracker week
  - VCal (and gain) calibration of single chips with x-ray tube
  - Finalise single chip setup in x-ray for new chip adapter
  - Produce small board to attach new ROC (psi46dig)
  - Finalise temperature paper
- May
  - Get new chips from PSI
  - Adapt the firmware to the digital chip (160 MHz)
- June
  - Verify firmware adaptations, first digital tests
  - Learn to use new testboard