Dear Hans-Juergen,

I report current status of the time resolution measurement of sci41 and I write some information which I should pass to next person who takes care of Scintillators.

As I told you yesterday, the measurement was performed with a laser at S4. Electronics in Messhuette: TAC and ADC time resolution 6ps in sigma (self start-stop) Electronics time resolution including CFD 30ps sigma (same signal to 2
CFDs)
Time reso. sci41LR 120ps in sigma (CFD 5ns delay), (I will give you a paper with other values.)

I have brought the same CFD in S4 cave, but the time resolution did not improve, it was around 140ps in sigma.

Sci41UpDown was better, 103ps in sigma.

So, we need farther improvement.
I should show you where the laser is.
I will come to you today. I need to go to my dentist and Krankenkasse, so I think I arrive around 11:00 in GSI.

I am sorry the measurement was delayed due to short of place for DAQ, and I was occupied by agata Ge time measurement and Agata experiment.

Tips for SCI and TOF:

Before experiment:
 -Check PMT and time reso.
 -Calculate energy deposit and estimate HV and pulse height.(see my slide). -From the Mocadi or Lise, decide TAC range (include FRS calib. points). -Time calibration for TAC and ADC (5 TACs but only TOF TACs need coeff). -Write the coefficient of the slope (only) in a file for the spy
  program (frs_calibration.txt).

With a beam:
 -Set HV to have good pulse height (CFD 935 max input 10 V) by considering
  energy deposit for all cases.
 -Set Threshord and zero cross.(if we have a defocus beam one can set
  Th. and Z/C easily).
 -Sci21 and sci41 position calibration by sweeping the beam with MWs.
-Position calibration coefficient by fitting 2D matrices
  sciXXX_mwPos_vs_dt and put it in the calibration file.
 -TOF calibration points at least 2 points normally 3 points. -From TOF calibration, extract coefficients (see FRS manual or online
  spectra of the previous RISING) and put them in the calibration file.
 -With a primary beam, check A/Q.
 -Put fragments and check A/Q.

Please ask me a detail when we meet today. I have only time today.

regards,Nami