SDU STATUS

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2016.3.3

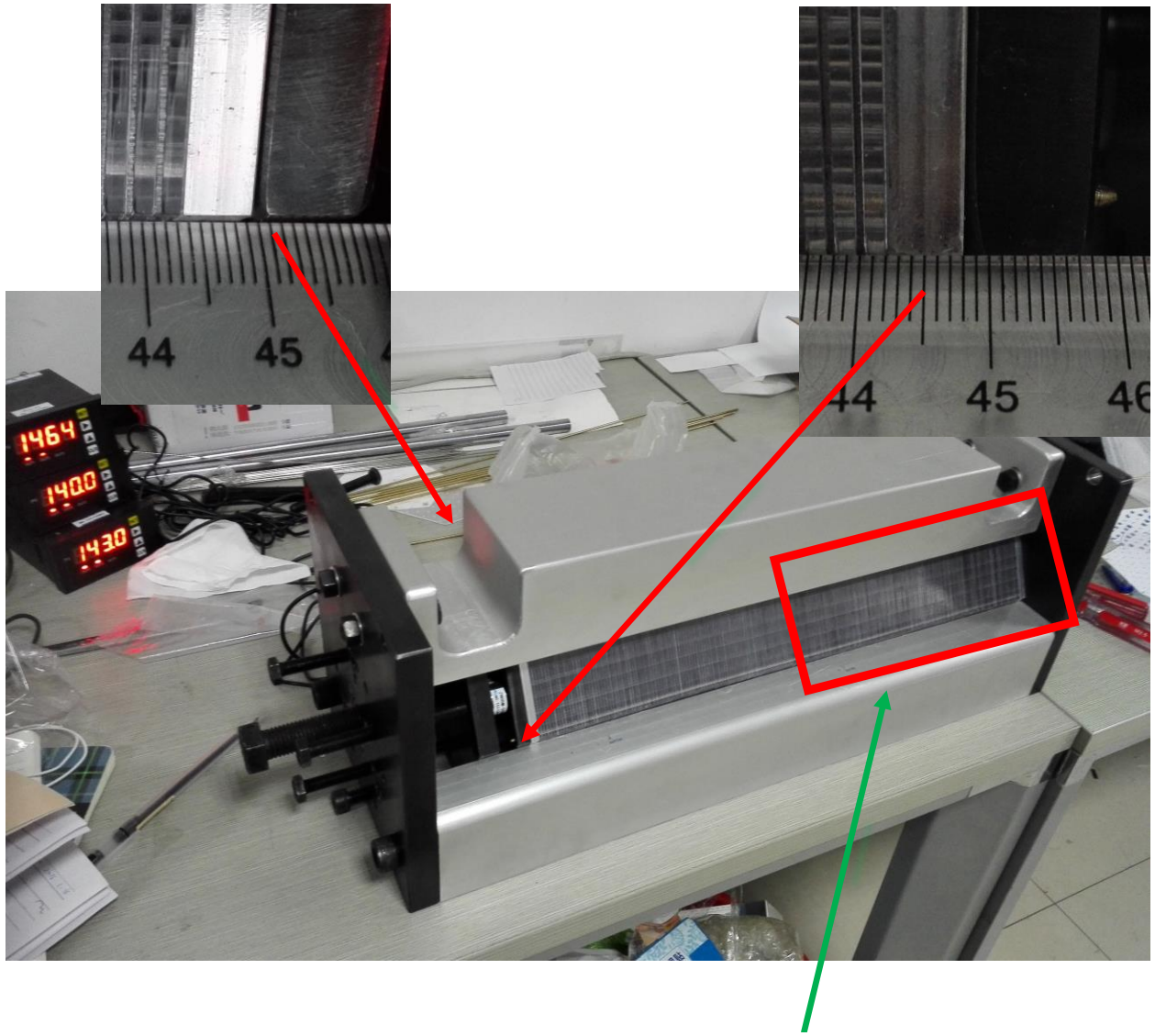
Good news and bad news

- The lead of Kolga, US, will arrive SDU tomorrow.

- The WLS fiber will be not available within months.
  - We pay to the international trade company, but they don’t sign the contract with Saint-Gobain.

Compression Test

- Continue to do the compression test this week
- The height of the module is found uneven last week (the biggest difference is about 0.8cm, mainly caused by the uneven thickness of scintillator tile, partly caused by lead plate)
- Rotated half of the layers to offset this difference this week. But we still found an uneven height of about 0.1cm

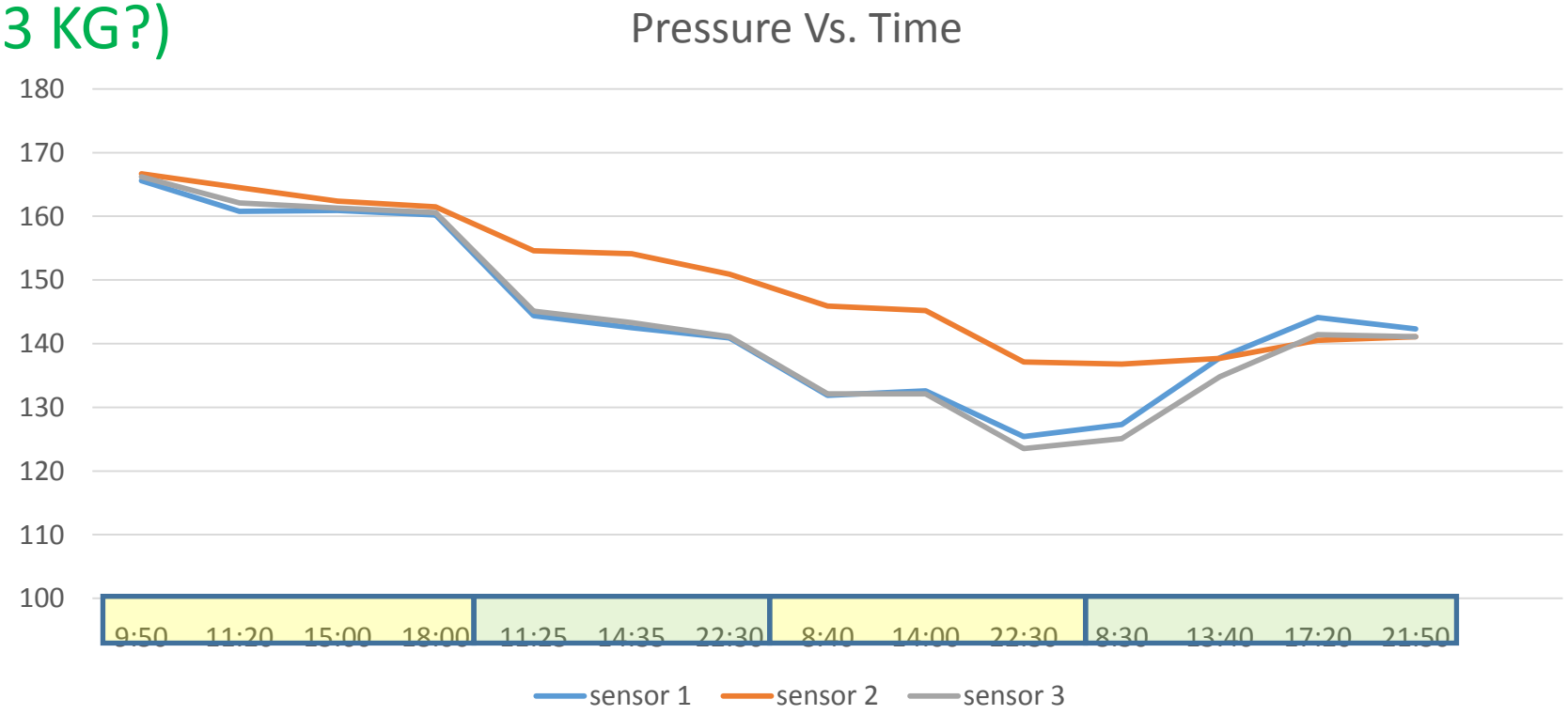


Rotated 97 layers along the longitude direction

Compression Test

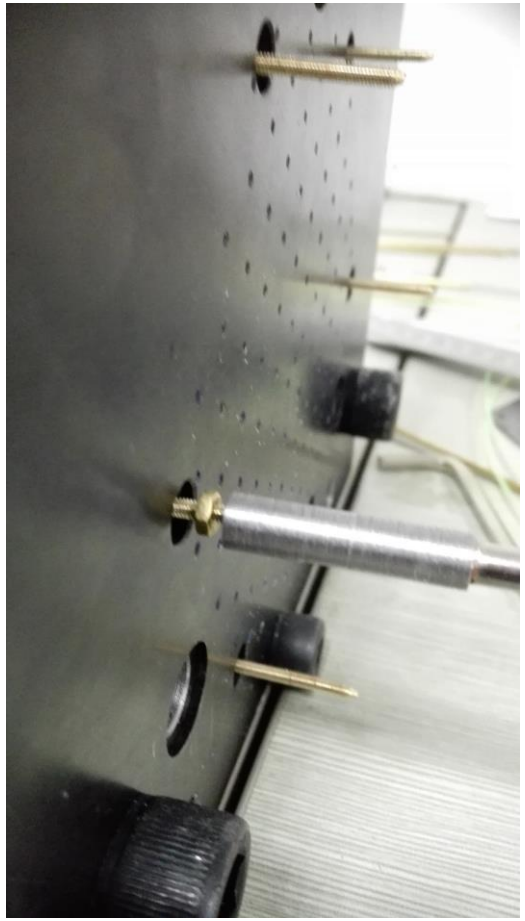
- About 500 KG force is applied to compress the module. When the pressure is less than 400 KG, increase the pressure to 500 KG
- It takes about 2 days to make the pressure stable (stable means not more than 20 KG force decreases overnight, and the differences between either 2 sensor are less than 3 KG?)

The pressure is sensitive to the temperature.



Main issue now

- The uneven of the height of module is small after the rotation, but still there. Maybe need interlayer to correct it.
- The pressures on different sensors decrease uneven. We don’t know whether the pressures will tend to be the same finally like this module. (Only one module is available for test now.)
- The total height of module is about 45.3 cm, how long the brass rod is need for assemble a module on the stand?
- How many turns should the nuts rotate to ensure that the pull in each brass rod is even.



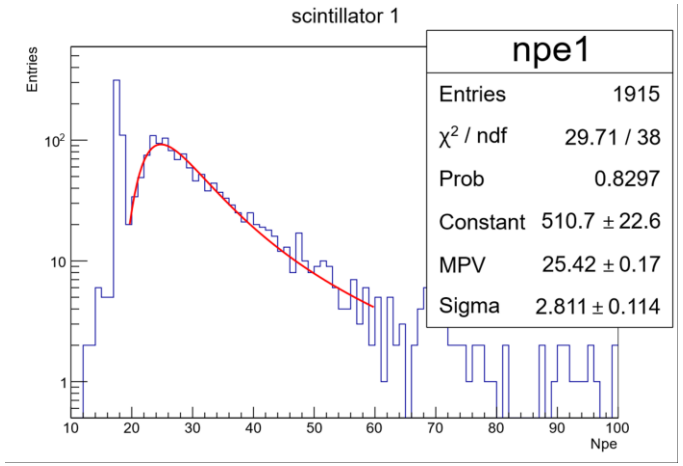
Scintillator primary test results

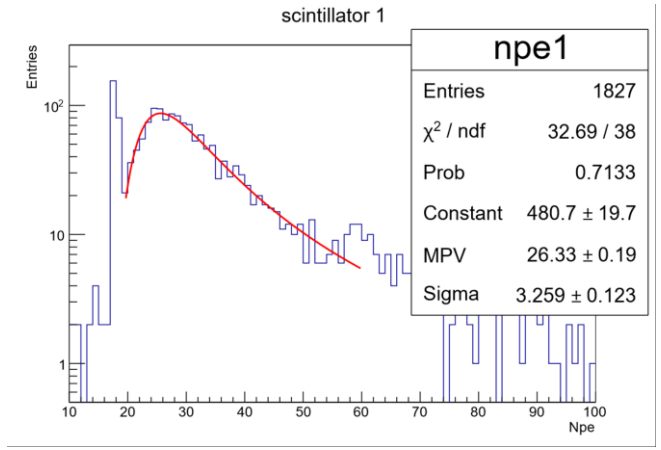
Recent results(1 scintillator)

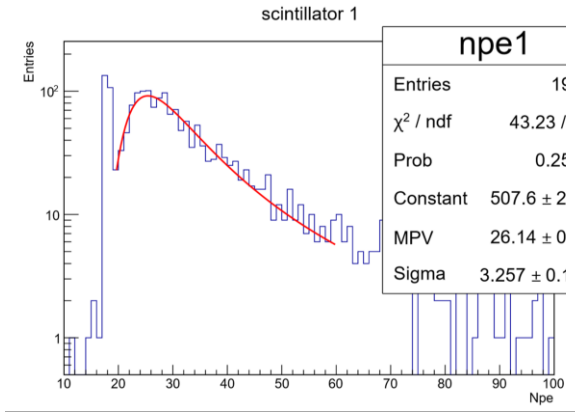
	2016/02/25	2016/02/26	2016/02/27	2016/02/28
	no reflector			no reflector
	no air gap lead	print paper	print paper	no air gap lead
scintillator number	no narrowside	no narrowside	no narrowside	no narrowside
1	7.5	8.4	8.2	7.9
2	6.4	8.8	8.1	8.1
3	8.4	12.6	12.1	10.7
4	8.3	11.3	11	8.6
5(scintillator without any change)	13.6	15.6	15.3	14.9

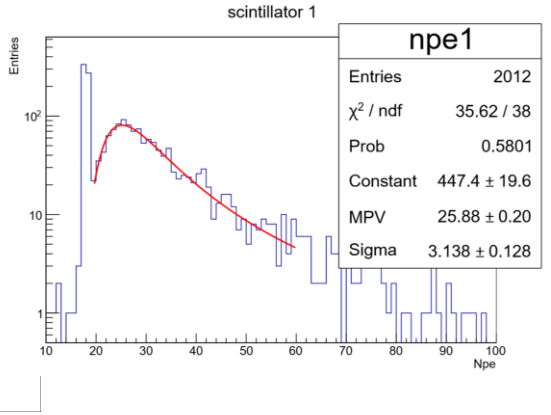
Recent result(3 scintillators stack up)

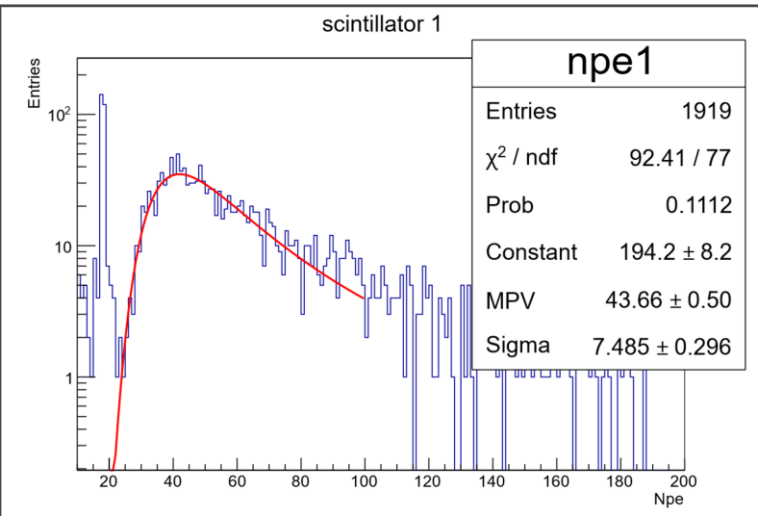
scintillator number	2016/02/29 no reflector no air gap lead no narrowside	2016/03/01 no reflector no air gap lead no narrowside	2016/03/02 no reflector no air gap lead no narrowside
1	25.7	24.9	26.0
2	27.4	25.8	26.0
3	28.6	27.4	27.1
4	28.4	26.7	27.1
5(scintillator without any change)	31.6	31.3	30.7

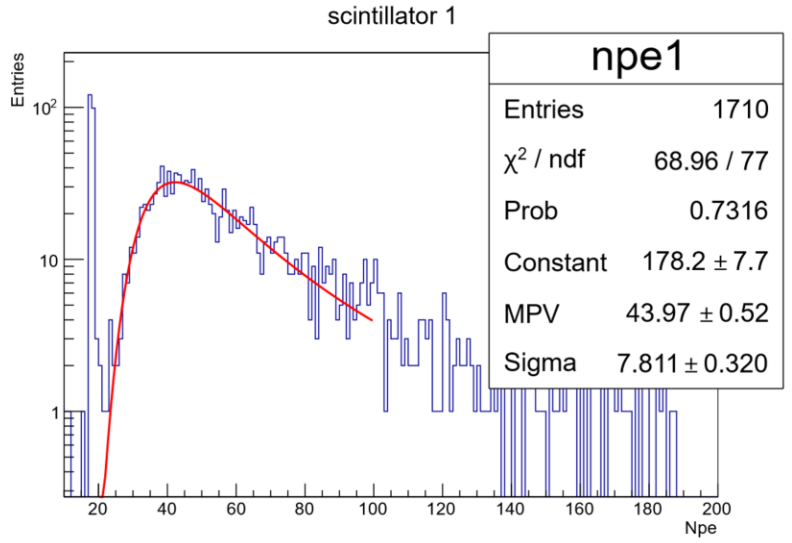

scintillator 1
npe1
Entries 1915
χ² / ndf 29.71 / 38
Prob 0.8297
Constant 510.7 ± 22.6
MPV 25.42 ± 0.17
Sigma 2.811 ± 0.114
Entries
Npe

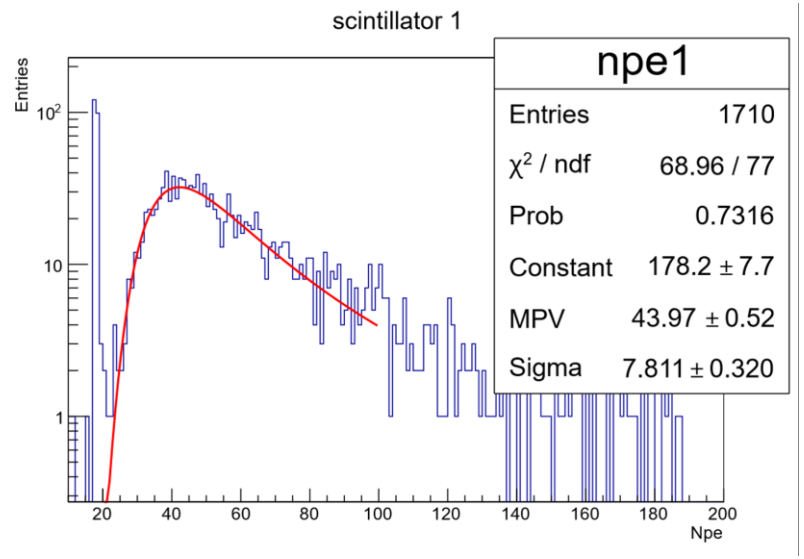

scintillator 1
npe1
Entries 1827
χ² / ndf 32.69 / 38
Prob 0.7133
Constant 480.7 ± 19.7
MPV 26.33 ± 0.19
Sigma 3.259 ± 0.123
Entries
Npe


scintillator 1
npe1
Entries 19
χ² / ndf 43.23 /
Prob 0.25
Constant 507.6 ± 2
MPV 26.14 ± 0
Sigma 3.257 ± 0.1
Entries
Npe


scintillator 1
npe1
Entries 2012
χ² / ndf 35.62 / 38
Prob 0.5801
Constant 447.4 ± 19.6
MPV 25.88 ± 0.20
Sigma 3.138 ± 0.128
Entries
Npe


scintillator 1
npe1
Entries 1919
χ² / ndf 92.41 / 77
Prob 0.1112
Constant 194.2 ± 8.2
MPV 43.66 ± 0.50
Sigma 7.485 ± 0.296
Entries
Npe


scintillator 1
npe1
Entries 1710
χ² / ndf 68.96 / 77
Prob 0.7316
Constant 178.2 ± 7.7
MPV 43.97 ± 0.52
Sigma 7.811 ± 0.320
Entries
Npe


scintillator 1
npe1
Entries 1710
χ² / ndf 68.96 / 77
Prob 0.7316
Constant 178.2 ± 7.7
MPV 43.97 ± 0.52
Sigma 7.811 ± 0.320
Entries
Npe