

# N20 Rates Map

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The rates for the N20 setup were obtained with both the scaler and TDC methods. Not all scaler channels were plugged in, so a few runs were analyzed with both scaler and TDC methods and the available scaler rates were compared to those obtained from the TDC. The other runs were analyzed only with the TDC method. Fig. 1 shows the layout of the N20 setup during the test run in January 2005.

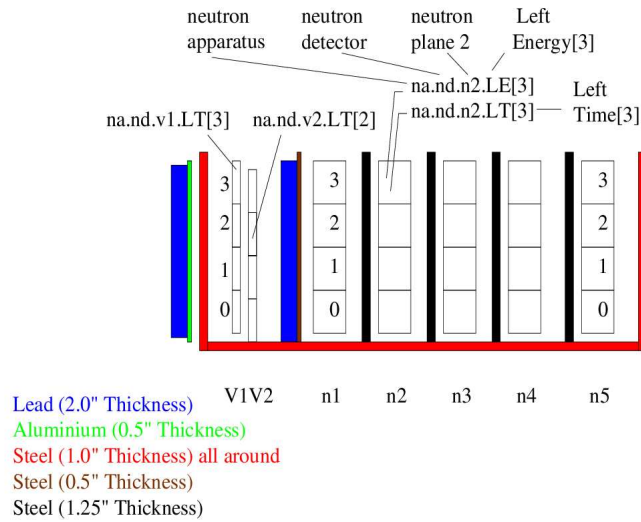


Figure 1: The layout of the N20 test setup

The N20 setup was placed at  $40^\circ$  with the beamline and at 15m distance from the target. The neutrons come in from the left. Presented in the following tables are the rates (in MHz) obtained for two similar runs.

The following rates (in MHz) are for run number 2289:  $9\mu\text{A}$ ; 4cm  $\text{LH}_2$  target.

LEFT						
.056	.165	.042	.038	.054	-	.042
.053	.040	.030	.018	.015	.0059	.024
.084	.072	.036	.019	.012	.023	.013
.061	.079	.029	-	.014	.025	.021

RIGHT						
.107	.222	.058	.050	.073	-	.067
.037	.059	.036	.021	.014	.013	.022
.026	.050	.036	.017	.018	.026	.010
.065	.047	.046	.031	.013	.048	.024

The following rates (in MHz) for run number 2284:  $9\mu\text{A}$ ; 4cm  $\text{LH}_2$  target.

LEFT						
.056	.167	.033	.041	.059	.103	.043
.053	.039	.031	.018	.013	.0072	.020
.087	.073	.032	.019	.014	.019	.0096
.067	.081	.032	.018	.014	.024	.020

RIGHT						
.105	.216	.060	.050	.071	.164	.069
.037	.057	.038	.018	.018	.013	.020
.025	.051	.036	.018	.013	.025	.0091
.082	.046	.045	.031	.012	.048	.023

More information on the ADC calibration process is available at  
[http://hallaweb.jlab.org/experiment/E02-013/expdocs/N20\\_AdcCal\\_Usersguide.ps](http://hallaweb.jlab.org/experiment/E02-013/expdocs/N20_AdcCal_Usersguide.ps).  
Details about the N20 test run are at  
[http://hallaweb.jlab.org/experiment/E02-013/expdocs/proposal\\_for\\_n20.txt](http://hallaweb.jlab.org/experiment/E02-013/expdocs/proposal_for_n20.txt).  
The TDC rates analysis page is here:  
[http://www.jlab.org/kolarkar/N20\\_Analysis/](http://www.jlab.org/kolarkar/N20_Analysis/)