

# CRaTER Verification Procedure/Report

Title: (8.3.5) Minimum LET measurement

Document 32-06020.25

Reference: 32-01205 Instrument Requirements Document Section 8.3.5

Requirement: At each point in the telescope where the LET spectrum is to be observed, the minimum LET measured shall be no greater than 0.25 keV/ micron in the Silicon.

Procedure: The minimum LET threshold of the thick detectors will be measured in an accelerator facility.

## Results:

The italicized row in this table shows the minimum LET for each thick detector using the detector calibration at MGH in the data files CRA0220070915165634L0, CRA0220070915163126L0, and CRA0220070915155914L0. The thick detector minimum LETs of 0.09, 0.16, and 0.09 KeV/micron are all less than the desired value of 0.25 KeV/micron.

Param	Units	Required	D1	D2	D3	D4	D5	D6
<b>Thickness</b>	microns	150/1000	148	1000	149	1000	149	1000
<b>Gain</b>	KeV/ADU		81.55	22.21	82.90	22.44	80.60	22.20
<b>Offset</b>	ADU		-0.34	0.91	-0.47	-2.24	-0.41	0.88
<b>Min E</b>	KeV	250	435.83	90.82	453.54	162.36	436.43	91.57
<b>Max E</b>	MeV		334.04	90.97	339.61	91.95	330.18	90.91
<b>E Error</b>	MeV	0.50%	0.17	0.20	0.20	0.19	0.18	0.20
<b>Min LET</b>	KeV/micron	0.25	2.94	0.09	3.04	0.16	2.93	0.09
<b>Max LET</b>	MeV/micron	2	2.26	0.09	2.28	0.09	2.22	0.09

S/N: 02

Passed/Failed: Passed

Comments:

Performed by: JCKasper

R&QA: \_\_\_\_\_

Date: 29 November 2007

Date: \_\_\_\_\_