CRaTER Verification Procedure/Report

Title: (8.3.6) Maximum LET measurement **Document 32-06020.26**

Reference: 32-01205 Instrument Requirements Document Section 8.3.6
Requirement: At each point in the telescope where the LET spectrum is to be observed, the maximum LET measured shall be no less than 2 MeV/ micron in the Silicon.
Procedure: Analysis will have to be used to extrapolate performance to higher LET values.

Results:

The italicized row in this table shows the maximum LET for each thin detector using the detector calibration at MGH in the data files CRA0220070915165634L0, CRA0220070915163126L0, and CRA0220070915155914L0. The thin detector maximum LETs of 2.26, 2.28, and 2.22 MeV/micron are all greater than the desired value of 2 MeV/micron.

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