

Solar Probe Plus (SPP)
Payload L3 Requirements Peer Review
24 May 2013

Action Item Request

Item No. PAY-223

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Area of Concern/ Presenter: Requirement wording does not reflect the latest input from EPI-Lo.

Action/ Recommendation/ Concern:

Update the wording of the requirement to:

“EPI-Lo shall be capable of measuring the $3\text{He}/4\text{He}$ ratio over at least 1 decade (TBR) in energy below 1 MeV/nuc and resolving 4He with a FWHM mass resolution ≤ 0.5 AMU (TBR).”.

Rationale:

Our high-confidence energy range for EPI-Lo is 100 keV/nuc to 500 keV/nuc. (We can probably go down to 50 keV/nuc and we might be able to get up to 1 MeV/nuc.). But our safe range is less than one decade: a factor of five (0.7 of a decade); if we do a little better than this safe range we can meet a decade - say 70 keV to 700 keV. So by making “1 decade (TBR)” we are including our expected range but can come back to revise this later.