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## **Materials**

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## Materials

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- **Inorganic and Polymeric Materials Lists Submitted**
- **Structural Materials Selected to Avoid SCC**
  - Table I of MSFC-SPEC-522: Al 6061, Ti 6Al4V
  - Table II of MSFC-SPEC-522: Mag AZ31B
  - No Table III structural items
- **Low Outgassing Required for Non-Metals**
  - RP1124 (<http://misspiggy.gsfc.nasa.gov/log/>) consulted
  - Less than 1% TML and 0.1%VCM criteria goal
  - All items on SPRL list comply with VCM
    - TBD velcro for thermal blankets
    - TBD radiator paint (probably GSFC MS74B)
  - High TML materials used in small amounts (ex. NOA61, marking ink)

- **EEE Parts Derating**
  - GSFC PPL Appendix B Guidelines unless MRB'd
- **Radiation Environment**
  - 10KradSi Total Dose Electronics Box (FPGA, DDC1553)
  - 30KradSi Telescope mounted LVDT Preamps (OpAmps, REF-02)
  - 30KradSi Profiler Electronics (CCD, OpAmps, LED/Phototransistor pair)
  - Tantalum shielding similar to APL SP569
  - SEU recovery techniques
- **Internal Electronics Design & Packaging Reviews**
  - CCD Controller, Telescope Servo/LVDT Preamp, Flight Computer held
  - Cal Lamp PS is UARS/HRDI design
  - Data Acquisition, Motor/Heater Drive, LV Power Supply, Profiler open