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Caveat: Effective Area Calibration

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The BI (back illuminated, S1 and S3) and FI (front illuminated, all other ACIS chips) quantum efficiencies at −120C as released are consistent at the 10% level from 1−8 keV. This is established by consistent fits to the G21.5−0.9 (an absorbed powerlaw supernova remnant) on front and back−illuminated chips (I1 and S3) over this energy range.

Several lines of evidence point to a discrepancy of order 15−20% in the ratio of BI/FI quantum efficiency ***in the energy range below about 1.2 keV only***, in the sense that this ratio seems to be larger than the released products have it. See the Degredation of Low Energy QE page for more information.

There are also systematic differences between the MEG and HEG efficiencies of up to 10% which are wavelength dependent.

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