

The Calibration of Young Pease

Coves, et al.

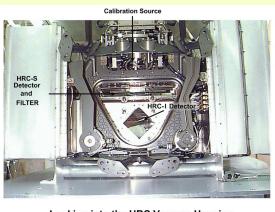
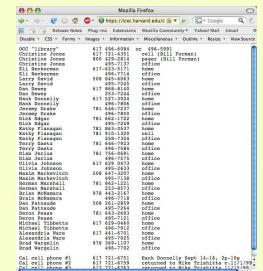
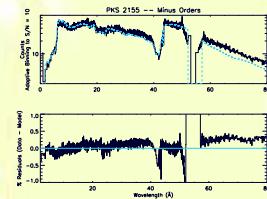
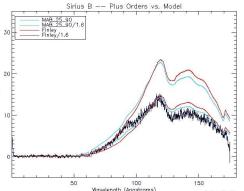


ABSTRACT

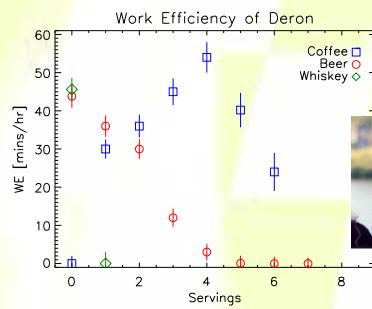
We present the results of three X-ray sources (0.3-80 Å, ~0.3-250 Å) observed by the High Resolution Camera Spectrometer (HRC-S) combined with the Low Energy Transmission Grating (LETG) aboard the Chandra X-ray Observatory. These instruments comprise the Low Energy Transient Explorer (LETXE).

For the bright, nearby, hot X-ray source PKS 2155-304 and the faint, 30-273 Å, which both happen to be relatively featureless emission sources, the flux as a function of energy for these sources can be described by power law models ($\propto E^{-p}$). For PKS 2155-304 we find that a single power law model with $p = 1.46$ fits the data from 30-273 Å and from 2-5 Å to the long wavelength ISM cut-off of ~ 80 Å. For 30-273 Å we see a broken power-law with $p_1 = 1.04$, $p_2 = 2.23$ and a break at ~ 15 Å. The ratio of the two models is ~ 1.5 . We also find a significant quantum efficiency (QE) model. Thus, from the residual we derive a correction to the HRC-S QE to match the predicted and observed spectra over the wavelength range 2-200 Å ($\sim 0.05 - 0.5$ mJy).

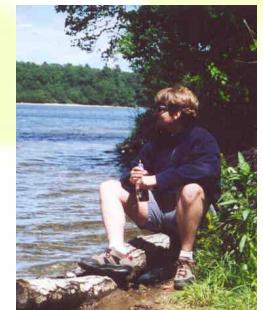
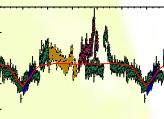
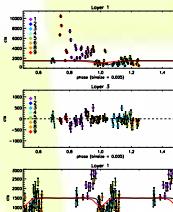
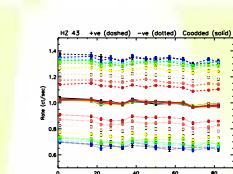
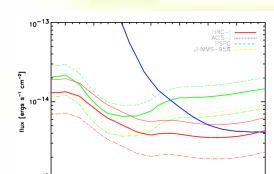
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Looking into the HRC Vacuum Housing



Jeremy interviewing prospective replacements



Note: uniforms will be obligatory starting 11/12/2006