

# Monochromatic computed tomography with a compact laser-driven X-ray source

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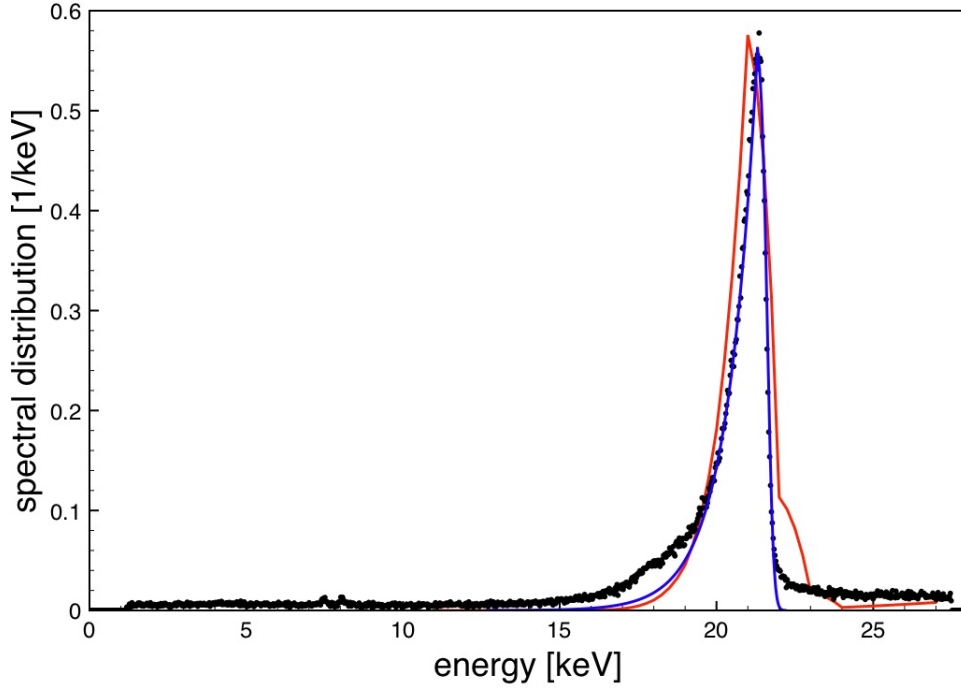
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## **Supplementary information**



**Figure S1:**

Black circles: Energy dependence of the spectral distribution of X-rays generated by the laser-driven electron-storage ring Compact Light Source (CLS) taken on an Amptek XR-100CR detector. The energy of the maximum was tuned to about 21 keV for this measurement. The background signal above the peak is due to pileup from the detector. Red line: Calculated spectral distribution of the CLS at 21 keV. The distribution was calculated from the measured values of the linear absorption coefficient  $\mu$  of the water phantom with an expectation maximization algorithm. For details see the main text. Blue line: Calculated model spectrum of the CLS at 21 keV based on measured electron and photon beam parameters. The tiny broadening of the measured and model spectra towards the high energy side is due to energy uncertainties of the electrons and laser photons. The broadening of the measured spectrum towards the low energy side is in addition caused by a variation of angles from the ideal head-on collision direction of the focused laser and electron beams.