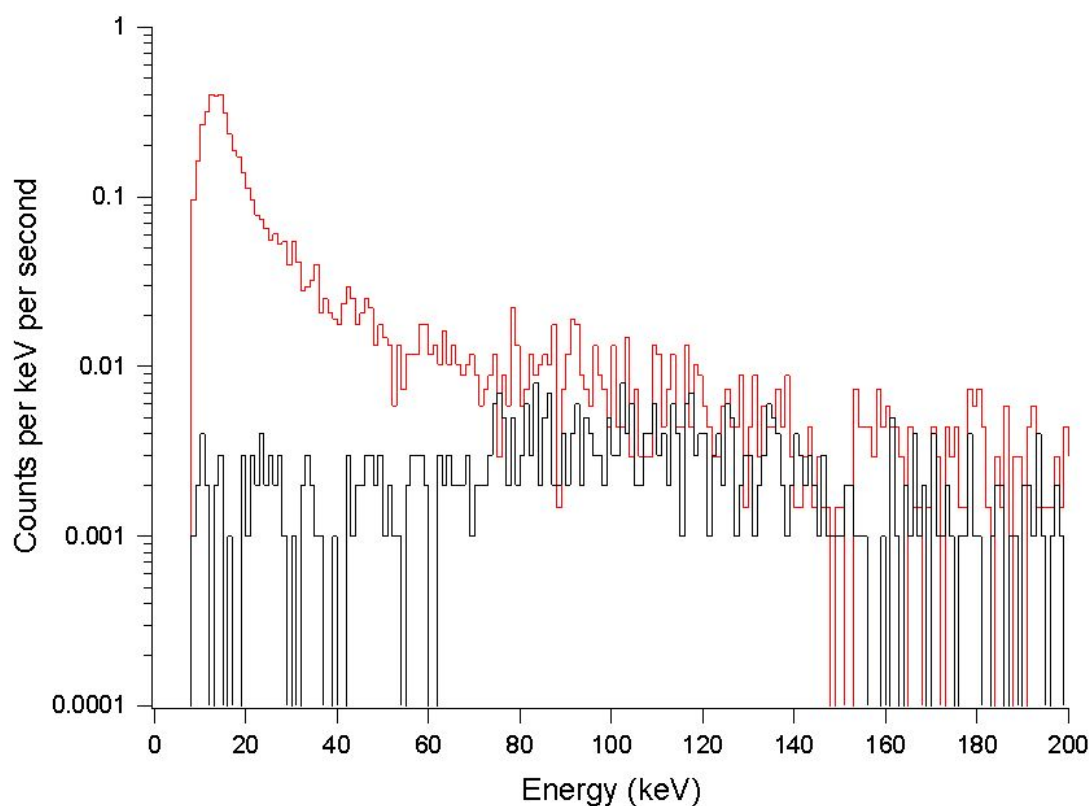
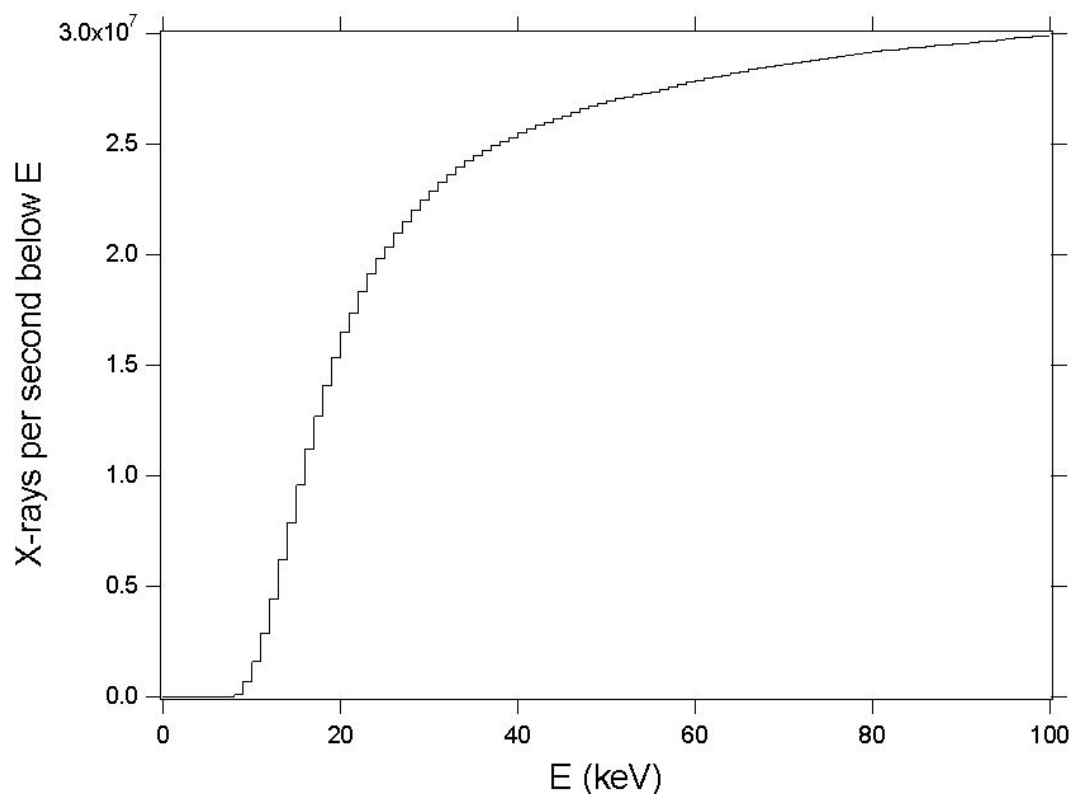


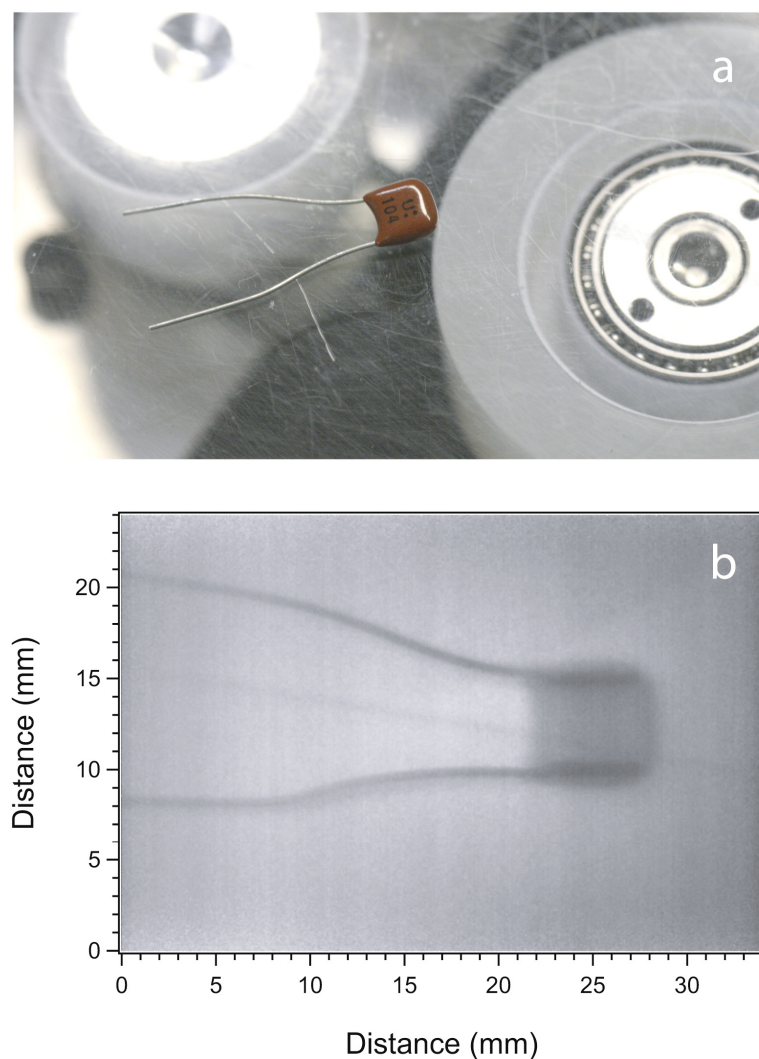
SUPPLEMENTARY INFORMATION



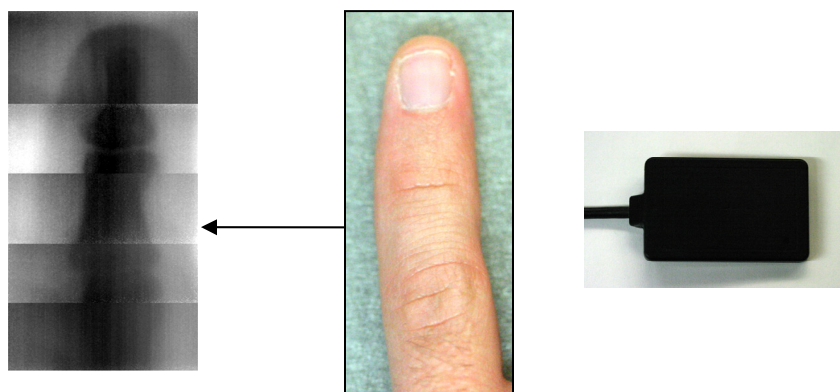
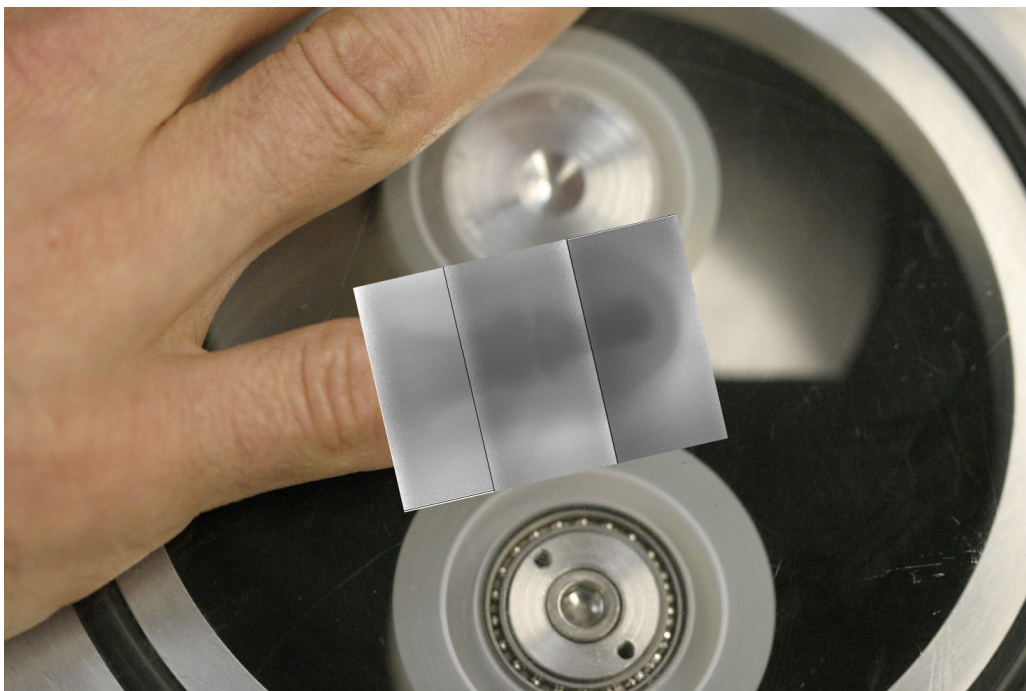
Supplementary Figure 1 Spectrum of x-ray energies from peeling one roll of tape. Peel speed was between 3 cm/s and 3.6 cm/s at 10^{-3} torr of air. Data was taken with an Amptek XR-100 3-Stack detector, unshielded, placed at 56 cm from the tape, looking through a $\frac{1}{4}$ " plastic window. The total data acquired was 679 s [red trace]. The background [black trace] was acquired for 1000 s.



Supplementary Figure 2 Integrated x-rays per second emitted from peeling tape at 20 cm/s under 1×10^{-3} torr of air. This data was obtained with an Amptek XR-100 3-Stack x-ray detector placed at 90 cm from the tape looking through a $\frac{1}{4}$ " plastic window. This detector has an active area of 25 mm². The data is corrected for 2π solid angle and an integration time of 60 s.



Supplementary Figure 3 X-ray image of a capacitor taken with peeling tape as the x-ray source [patent pending]. **a** is a photograph of the capacitor in the set-up used to take the x-ray image. **b** is the x-ray image of the capacitor. The tape was under a pressure of 1×10^{-3} torr of air and the peel speed used was 20 cm/s. The tape was unwinding from right to left. The capacitor was placed 1 cm from the tape outside the vacuum chamber over a $\frac{1}{4}$ " plastic window. The x-ray image is a 5 s exposure on a Hamamatsu oral x-ray camera [S8985-02] placed over the capacitor. This detector has $20 \times 20 \mu\text{m}$ pixels, however for the x-ray images presented here a 4 pixel binning was used, resulting in an effective resolution of $40 \times 40 \mu\text{m}$. This device is $\sim 40\%$ efficient at capturing 30 keV photons. The horizontal line apparent in the x-ray image is an x-ray shadow of the tape.



Supplementary Figure 4 X-ray images of a human finger taken with peeling tape [patent pending]. Top panel, 3 x-ray images taken with 20 s exposures on a Hamamatsu oral x-ray camera [S8985-02] were combined and overlaid on a picture of the set up used. The tape was peeled from bottom to top at a speed of 10 cm/s under 1×10^{-3} torr of air. The hand was placed over a $\frac{1}{4}$ " plastic window at about 1 cm from the tape. Bottom sequence shows from left to right, x-ray image of the human finger, photograph of the human finger, and the x-ray camera used to take the x-ray images.