Figure 2.20 Results obtained from a simple undergraduate laboratory experiment involving X-ray diffraction from the (100) planes of a sodium chloride crystal. The graph shows the intensity of the reflected signal as a function of the incident angle $\theta$. Note that the X-ray source in this instance generates two wavelengths of X-rays which explains the appearance of the double peaks. Three sets of peaks can be seen, corresponding to $n = 1, 2$ and 3. (Data supplied by Margaret Evans.)