

FIGURE CAPTIONS

Figure 1: Phase diagram of KCN for a restricted pressure-temperature range. The  $\otimes$ 's mark the P-T points corresponding to the measurements reported here. All other symbols are associated with phase boundary determinations as reported in Ref. 2.

Figure 2: Time-of-flight (TOF) neutron diffraction pattern for cubic KCN III. The solid line shows the result of simultaneously fitting all of the peaks letting the peak intensities be free. (See Section III of the text.) The fit is not extended to the (100) peak at the extreme right end of the pattern because of a frame overlap problem which caused the background to rise slightly here. The calculated position of the (100) peak is shown by a vertical arrow. The peaks due to the alumina ( $\text{Al}_2\text{O}_3$ ) pressure cell are given with hexagonal indexing.

Figure 3: TOF neutron diffraction pattern for KCN IV. The solid line shows the result of simultaneously fitting all of the peaks assuming the space group  $R\bar{3}m$  ( $D_{3d}^5$ ) with the cyanide ion lying along the primary axis of the rhombohedral unit cell. (See Section III of the text.) The displacement of the (100) and the (200) peaks from their exact rhombohedral positions is emphasized by the inset above the (200) peak and the vertical arrow showing the calculated position of the (100) peak. The vertical lines just below the diffraction pattern give the rhombohedral line positions while the positions of the observable  $\text{Al}_2\text{O}_3$  lines are marked by the symbol Y.