



Figure 9: Attenuation length measurements for various fibers. The Pol.Hi.Tech. single-clad fibers appear to have been broken or stressed at the locations where the discontinuities appear in their curve (unconnected squares).

Finally, past experience with running in the M11 area has shown that the stray magnetic field of the TRIUMF Cyclotron can affect PMT gains. Therefore, measurements of  $\vec{B}_{vertical}$  and  $\vec{B}_{axial}$  (parallel to the fibers) were recorded, using a NMR probe. The field components were measured in  $\approx 20$  cm intervals along the entire range of locations of the PMT's, for the full length scans of the measurements. The PMT's are most susceptible to the axial field. Its value was below 0.5 G nearly everywhere, except around 1.5 m from the beam center toward the right fiber PMT, where it became around 2 G. In order to dispell concerns of the effect of the magnetic field, several of the measurements were repeated (Group-4) by reversing the direction of the fiber bundle, and thus the PMT's, from left to right. The reversed measurements yielded the same value for the attenuation length as that from the forward scans, within error bars.