near the wall biased to eliminate ions arising from the wall; or (c) identify pulses initiated in the gas by pulse shape.

4. Perform a series of experimental runs and sum the pulse height spectra. The resulting spectrum would allow a more sensitive search for a peak at 2.8 keV from Ar^{37} decay. This approach would be very effective if the counter background were essentially zero, since it would constitute a nearly continuous observation of the solar neutrino flux.

These various approaches are being examined. The obvious approach would be to build a larger detector, but this is not being seriously considered at present.

Other Radiochemical Methods for Detecting Neutrinos

The results of the Cl^{37} experiment make it appear very likely that the flux of energetic neutrinos from B^8 decay in the sun is less than 10^6 cm^{-2} sec^{-1}. One should therefore develop another neutrino detection technique capable of observing low energy neutrinos. The radiochemical method, with its high sensitivity, appears to be a fruitful approach to explore. Though it is also possible to conceive of detectors based upon the scattering of neutrinos by electrons, as Professor Reines has suggested at this conference.

Dr. Keither Rowley and the author have made search for possible neutrino capture reactions that would be suitable for a radiochemical detection system. A list was compiled of all radioactive isotopes produced from stable isotopes by (ν, e^-) reaction with a threshold below 1 MeV. Out of this list we chose only those cases in which the transition was allowed ($\log ft < 6$), and resulted in a radioactive product with a half-life under 5 years but more than 20 minutes. An additional chemical restriction was imposed. It seems unlikely that one will be able to separate a few atoms of