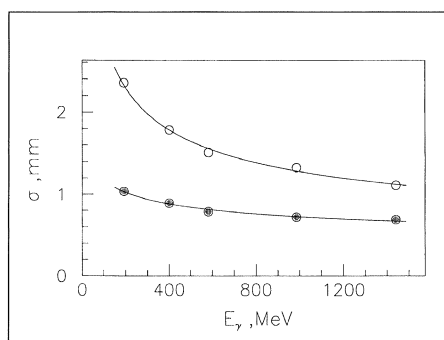


KEDR prototype liquid krypton calorimeter space resolution data in the energy range 150 to 1300 MeV. Black circles present the resolution in the layer of liquid krypton where conversion occurred, open circles in the next layer. The space resolution for photons, of the order of 1mm, sets a new standard for total absorption calorimeters.



Compton and single bremsstrahlung spectra at different beam energies. In this way the tagged photon station allows high intensity photon beam experiments in a wide energy range, from 40 up to 4500 MeV.

The prototype liquid krypton calorimeter contains 400 kilograms of krypton and consists of flat ionization chambers (made of foiled G10 - fibreglass with copper foil covering) with an electrode gap of 2cm. The electrode structure is close to that of the actual KEDR liquid krypton calorimeter and has towers and strips for measuring photon energy and coordinates. The 96-channel readout electronics consists of a low noise charge sensitive preamplifier, simple shaper optimizing signal-to-noise ratio, and a 12-bit ADC.

Since all the calorimeter is practically active material and therefore homogeneous, the energy resolution is comparable to the best calorimeters based on heavy crystals. Space resolution is considerably improved because of the possibility of seeing the photon conversion vertex.

The experimental technique - photon tagging and the measurement of photon energy and coordinates with high resolution - is important not only as a test of the calorimeter, but also as an independent study for experiments with high energy photons. For example it makes possible an experiment on photon splitting

(through vacuum polarization - a transient electron-positron pair - in the field of nucleus) scheduled for this spring.

TRIUMF Vogtfest

A symposium on "Subatomic Physics in the '90s" was held at the University of British Columbia on 4 December to honour Erich Vogt on his official retirement from the university and, earlier in the year, from the Directorship of the Canadian TRIUMF Laboratory in Vancouver. (He is succeeded by Alan Astbury.) Distinguished speakers included E.M. Henley (QCD Sum Rules and the Weak Interaction), N. Isgur (Heavy Quark Symmetry and the Quark Model: A Curious Coincidence), T.D. Lee (The Importance of Condensates in high temperature Superconductivity and Relativistic Heavy Ion Collisions), and Sir Denys Wilkinson (The Universe and I). The event concluded with an entertaining evening 'Vogtroast' directed by

Vogtfest celebrants at TRIUMF, Vancouver: (left to right) Douglas Bryman, Ernest Henley, Sir Denys Wilkinson, Erich Vogt, Richard Taylor and Nathan Isgur. (Photo: David Axen)



Richard Taylor, the leading contributor of highly appreciative and mostly respectful remarks being Karl Erdman.

Erich Vogt was one of the founders of TRIUMF and served as Associate Director (1968-71, 1972-3), Chairman of the Board of Management (1974-80) and Director (1981-94). He was also Vice-president of the University of British Columbia (1975-81) but has been best known recently as "Dr. KAON" for his long-term championship of the project to build a major particle beam factory at TRIUMF. Retirement has not yet caused any visible diminution in his activity level, and, among other things, he continues to edit "Advances in Nuclear Physics" and to serve as Vice-chairman of the IUPAP Commission on Nuclear Physics.

CATANIA First beam from superconducting cyclotron

The CS superconducting (K=800) cyclotron built at the Laboratorio Nazionale del Sud (LNS) of INFN, Catania, in a collaboration between the LNS and INFN Milan gave its first beam on 22 December when nickel-