Observation of EAS using a large water tank

K. Inoue, H. Sakuyama, N. Suzuki and T. Suzuki

Department of Physics, Meisei University, Hino, Tokyo 191

Using a large water tank ( 30 m in diameter, 4.5 m in depth ) transition of EAS has been investigated at Taro ( 200 m above sea level ). There are set 150 0.4 m<sup>2</sup> proportional counters to the bottom of the water tank. A conventional EAS array of 25 plastic scintillation detectors has been arranged within several tens meter from the water tank. Proportional counter (  $10x10x200 \text{ cm}^3 \text{ x2}$  ) is made of a square shaped pipe of iron. Tungsten wire (  $100\mu\text{m}\phi$  ) is tight stretched in the center of counter. A gas mixture of 90 % argon and 10 % methane is used at 760 mmHg. A set of proportional counter is shown in figure. About 3000 EAS have been obtained through 1 m of water since 1984.

