

Abstract Submitted
for the DPP06 Meeting of
The American Physical Society

Cross-Calibration of Neutron Detectors for the Dense Plasma Focus FN-II Time of Flight Analysis¹ FERMIN CASTILLO-MEJÍA, JULIO HERRERA-VELÁZQUEZ, JOSÉ RANGEL-GUTIÉRREZ, Instituto de Ciencias Nucleares, UNAM — The *Fuego Nuevo II* (FN-II) dense plasma focus machine is a small device (~ 5 kJ @ 37 kV). In order to have an adequate picture of the neutron pulse with temporal resolution, a set of five similar scintillation-photomultiplier detectors have been assembled, using BC-400 scintillators, 50 mm high and 120mm radius, coupled to photomultipliers. These detectors are shielded by a lead wall, 50 mm thick. This work shows some preliminary results, in which a response of the five systems is shown, when they are placed 7.5 m away from the neutron source. A comparison between the time integrated neutron pulses and the neutron yield, measured with silver activation counters, is made.

¹This work was partially supported by the DGAPA-UNAM grants IN105100 and IN105705.

Julio Herrera
Instituto de Ciencias Nucleares, UNAM

Date submitted: 25 Jul 2006

Electronic form version 1.4