

# SCINTILLATION PROBE NEUTRONS

## Scintillation Probes (Neutrons):

### PNS-19

Fast Neutron Scintillation Probe insensitive to gamma radiation in fields below 100 R/hr. The n-p reaction is used to measure energy deposited by neutrons. A shaped light pipe and moderator about the ZnS.Ag phosphor gives a consistent Rem to count ratio for incident neutrons 1/4 MeV and above, within  $\pm 30\%$ . **(Figure 1)**

### PNS-20

Slow Neutron Scintillation Probe. Thermal neutrons are detected by means of the boron n-alpha reaction. Probe delivers approximately 60 cpm per neutron/cm<sup>2</sup>/second and requires a 900 volt supply. The probe is 8" long x 2" in diameter. It is completely insensitive to gammas in fields below 10R/hr. To measure fast neutrons, use the PNS-19 probe. **(Figure 1)**



Figure 1

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