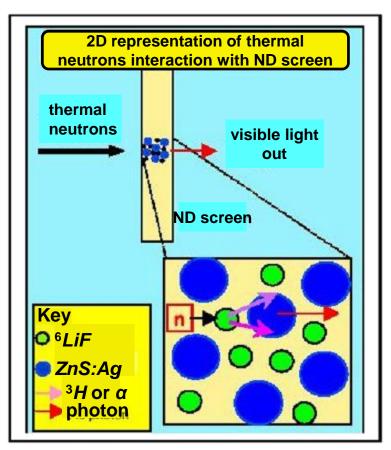
## **Neutron Imaging Detectors**

The ZnS+6LiF scintillation screen is the limit of resolution.

The reaction products of



$$^{6}\text{Li}(n,\alpha)^{3}\text{H} + 4.7 \text{ MeV}$$

have to be stopped in the ZnS scintillation screen.
Their average range is in the order of 50-80 µm.

About 177,000 photons are generated per detected neutron.

With thinned scintillation screens, we can achieve resolution in the order of 20-30 µm.

The range of the daughter products from neutron capture limits the resolution