Neutron Scattering Class, due Sept. 17. 2007.

Problem #1 (10 points)

Neutron Pressure:

Suppose we have a reactor with a thermal flux

\[ \phi_i = 2 \times 10^{14} \text{ neutrons/cm}^2/\text{sec} \]

What is the neutron pressure at \( T = 350 \text{ K} \)?

Problem #2 (10 points)

Neutron attenuation through air. Estimate how much neutron beam intensity will be attenuated through a length of 17 ft (or 520 cm) of air at one ATM. Assuming there are only oxygen and nitrogen in air.