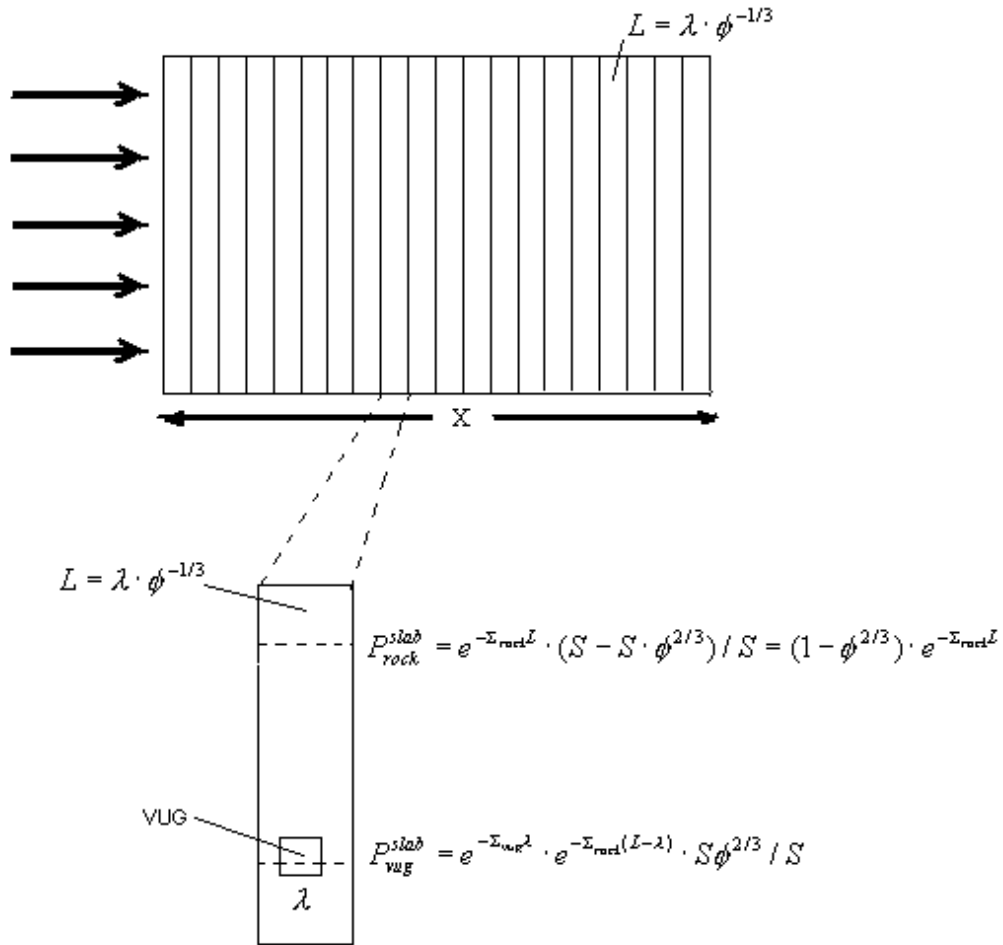


Figure 1

Neutron rock and vug transmission probabilities in a vuggy porous medium through (x/L) micro slabs each of thickness L to a macro distance x



$$P_{HET}^{TRANS} = [P_{HET}^{slab}]^{x/L} = e^{-\Sigma_{rock}x} [1 - \phi^{2/3} (1 - e^{-(\Sigma_{vug} - \Sigma_{rock})\lambda})]^{x/L}$$

$$\Sigma_{HET} = \Sigma_{rock} - (\phi^{1/3} / \lambda) \ln[1 - \phi^{2/3} (1 - e^{-(\Sigma_{vug} - \Sigma_{rock})\lambda})]$$