Neutron flux profile in cylindrical fuel elements

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1 Quiz

1.1 *Questions*

1. What is the ratio of average flux to maximum flux in a cylindrical reactor without any reflector?

2. What is the major advantage of flux flattening?

3. Which one of the following is not a method for flux flattening?
(a) variation of fuel enrichment (b) varying the insertion level of control rods
(c) variation of fuel-moderator ratio (d) decreasing reactor power

4. What is the ratio of average flux to maximum flux in a cylindrical reactor with axial and radial reflectors with R/R' and H/H' being 0.83?

1.2 *Answers*

1. 3.64

2. Reactor power can be increased without allowing overheating of fuel

3. (d) decreasing reactor power

4. 2.35