

PDF Quiz 10: In Reactor Chemistry
RDCH 702
Assigned: 26-Nov-18
Due: 1-Dec-18

Last Name: _____
First Name: _____

Answer using lecture notes, web pages, chart of the nuclides, table of the isotopes or any other suitable source.

1. What is the typical amount of energy released for each fission event? _____
2. Indicate the fission elements that are in metallic epsilon phases in used fuel

Pd Mo Pr Rh
 Zr Tc Ce Ru

3. Identify the fission elements that would be expected to be volatile if breached from nuclear fuel and cladding in a reactor.

Pd Cs Pr I
 Rb Tc Br Xe

4. A typical nuclear power plant has a fuel burnup of 40 GWd/MTHM. What percentage of uranium from an LWR reactor with an initial enrichment of 4 % ^{235}U is used for this burnup?

_____ %

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