FIGURE 1.1 Schematic Face View of CANDU 6 Reactor

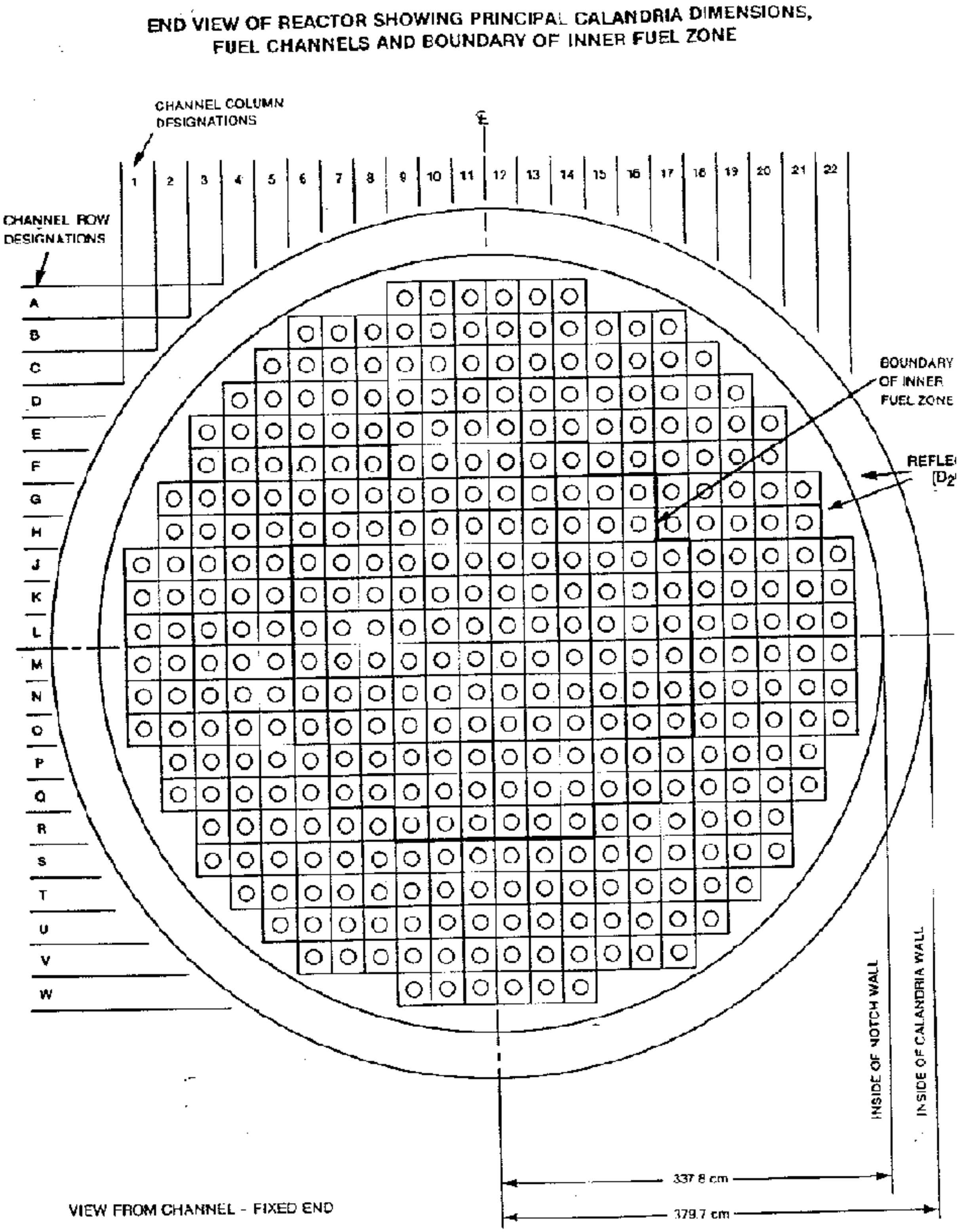


Figure 1.2 Face View of CANDU Basic-Lattice Cell

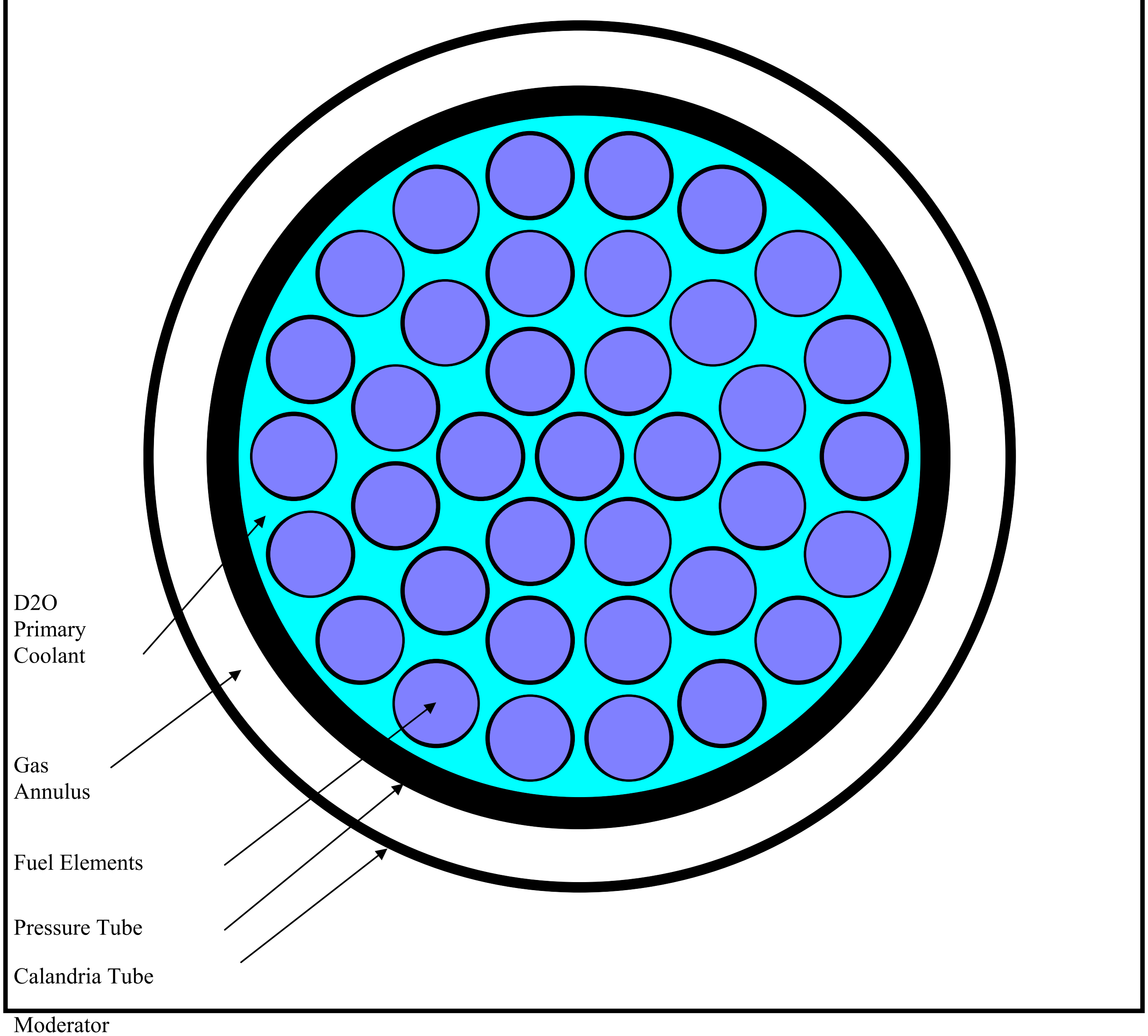


Figure 1.3 Number of Collisions and Energy Loss per Collision During Moderation

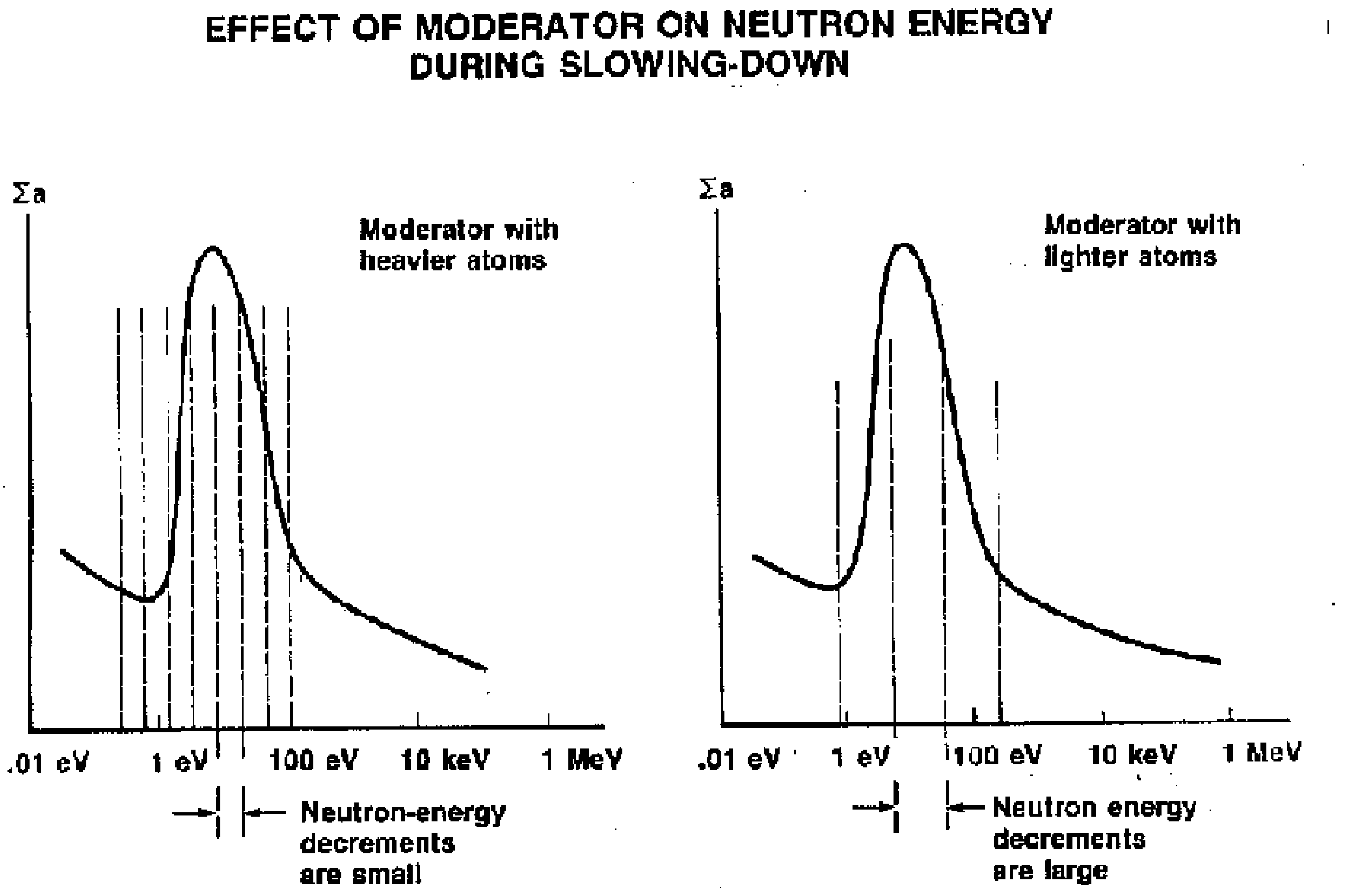


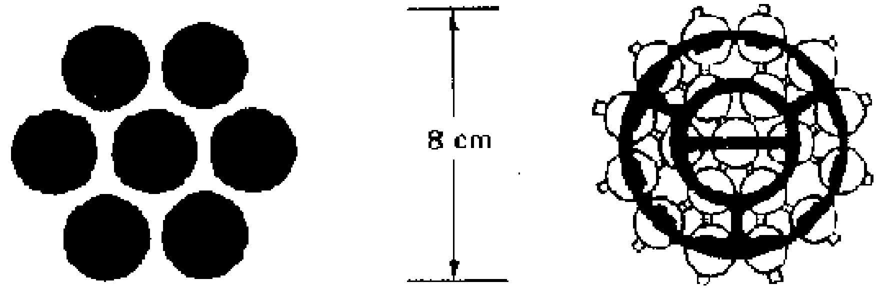
Fig. 1.4 - Number of Collisions to Thermalize a 2-MeV Neutron

Moderator	Number of Collisions
H	18
D	25
He	43
Li	67
Be	86
C	114

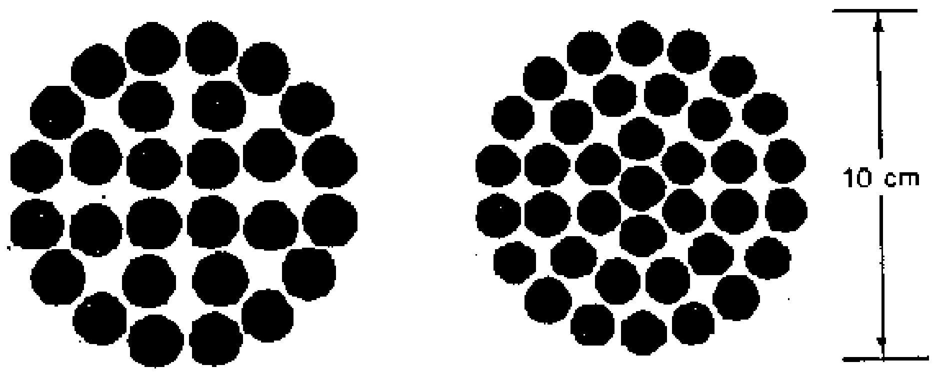
Figure 1.5 Moderating Ratio of Various Moderators

Moderator	Moderating Ratio
Light Water	62
Carbon (Graphite)	165
Heavy Water	5000

Figure 1.6 Various Fuel-Designs



Reactor	N.P.D.	N.P.D. & DOUGLAS PT.	
Number of Rods/Bundle	7	19	19
Rod Diameter mm	25.4	15.25	15.22
Nominal Bundle Power kW	220	221	420
Mass Ratio UO_2/Zircaloy	11.1	10.2	10.1



Reactor	PICKERING	BRUCE & 600 MW	
Number of Rods/Bundle	28	37	37
Rod Diameter mm	15.19	13.08	13.08
Nominal Bundle Power kW	640	900	800
Mass Ratio UO_2/Zircaloy	11.1	9.4	9.4

Figure 1.7 43-Pin CANFLEX Bundle

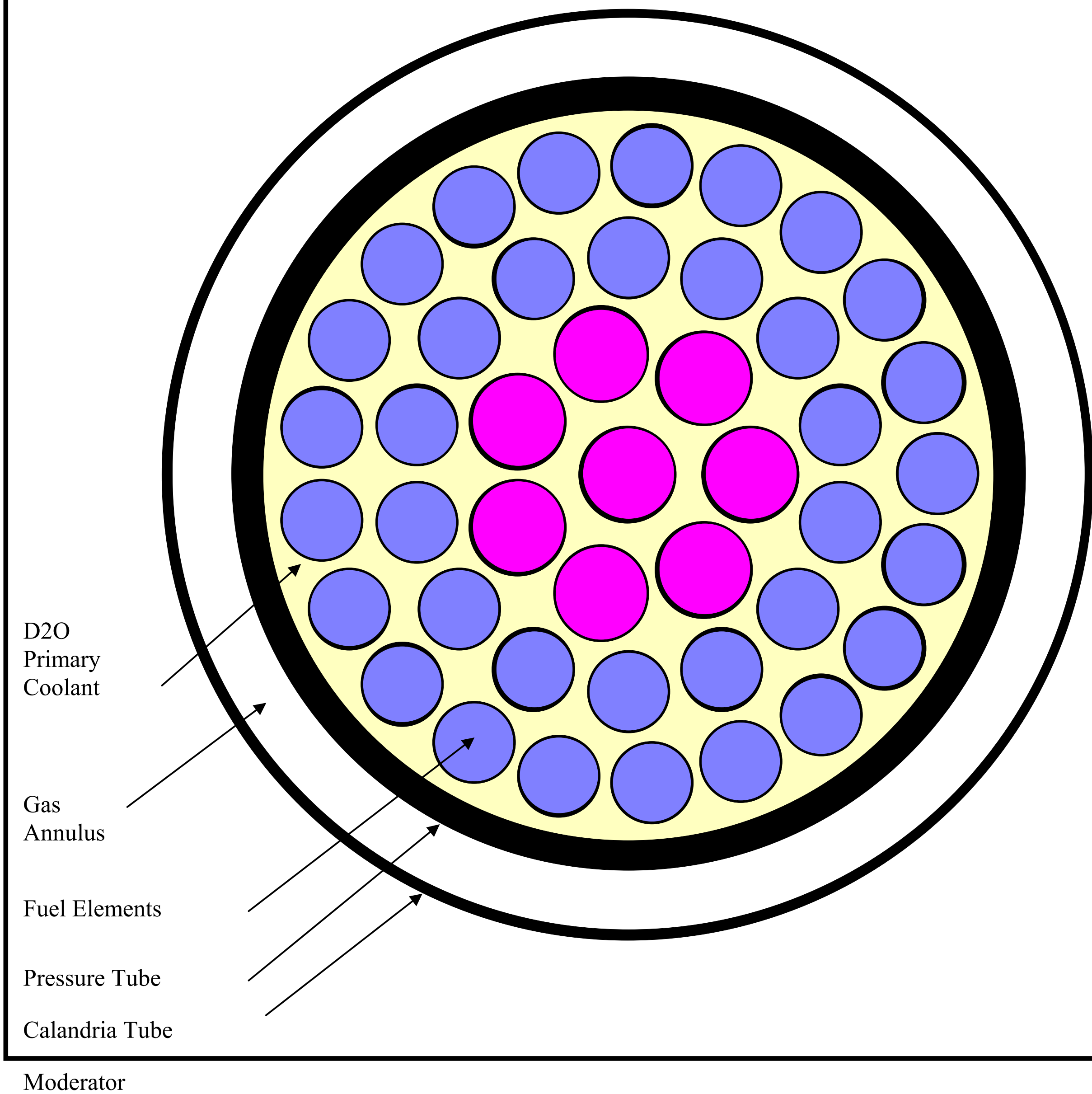


Figure 1.8 Basic Characteristics of CANDU

- Use of heavy water as moderator: maximizes neutron economy

- Pressure-tube construction: allows
    - low-pressure calandria
    - low-pressure, low-temperature environment in moderator for reactivity devices

- On-power refuelling:
    - removes the need for refuelling shutdowns
    - allows reactor operation with small average excess reactivity

Figure 1.9 Relationship Between Irradiation and Burnup