# Comparative Analysis of WCLL to Different European DEMO Blanket Concepts in Terms of Activation and Decay Heat after Exposure to Neutron Irradiation

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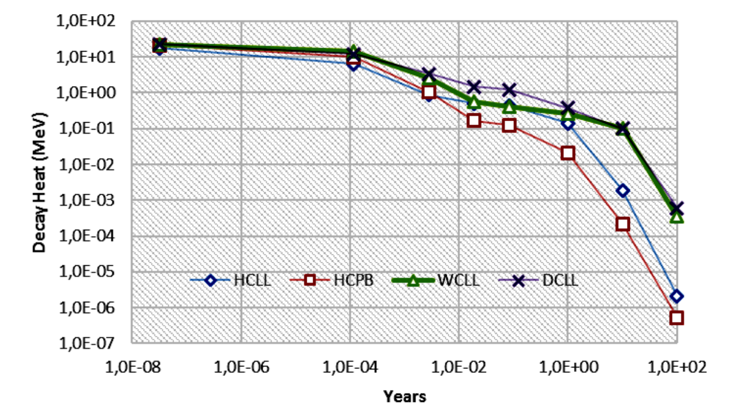
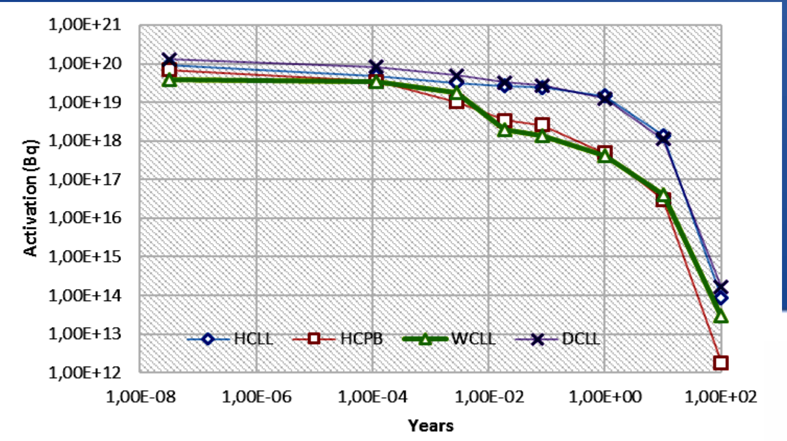
European DEMO blanket concepts showed that the total decay heat is expected to be above 10 MW for all blanket just after shutdown. At short decay times (<1×10$^5$ s) HCLL gives the lowest decay heat, while longer decay times (>1×10$^5$ s) HCPB gives the lowest decay heat. Also short decay times (<1×10$^3$ s) and long decay times (>1x10$^8$ s) **WCLL** and DCLL gives highest decay heat while middle decay times (>1×10$^3$ and <1×10$^8$ s) DCLL gives highest decay heats.




Activation is dominated by the tungsten armour over the first several days after shut-down for **WCLL**. Later, the BB mixture and Eurofer steel structure dominates the activation.

Mn-56 and W-187 are most dominant nuclides in BB mixture.

HCLL and HCPB design has the lower, in comparison to **WCLL**, total decay heat (17.5 MW) at short decay times (1 s)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