

Comparison of PBMR Fuel Parameters and German and Chinese Pebble-Bed Reactors

	<u>AVR</u>	<u>THTR-300</u>	<u>HTR (module)*</u>	<u>HTR-10**</u>	<u>PBMR</u>
Fuel Form	BISO (Th, U) C <sub>2</sub>	BISO (Th, U) O <sub>2</sub>	TRISO (UO <sub>2</sub> )	TRISO (UO <sub>2</sub> )	TRISO (UO <sub>2</sub> )
Enrichment	HEU	HEU	9%	17%	8%
Burnup	?	?	80,000	80,000	80,000
Avg Power Density	2.5 Mw/m <sup>3</sup>	6.0 Mw/m <sup>3</sup>	3.0 Mw/m <sup>3</sup>	2.0 Mw/m <sup>3</sup>	3.3 Mw/m <sup>3</sup>
Load Follow	NO	?	?	?	YES
Core Design	homogeneous	homogeneous	homogeneous	homogeneous	annular
He Pressure	1.1 MPa	3.9 MPa	6.6 MPa	3.0 MPa	7.0 MPa
He Flow	up	down	down	down	down
He temp-inlet (°C) -outlet (°C)	270° (variable) 950°	250° 750°	700°	250° 700°	536° 900°

\* Plant Never built.

\*\* Chinese 10 Mwt research reactor.

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