

2018

“ ”

“

” ITER

ITER

CFETR

“ ” EAST “ ” 2 ”

HL-2M

CFETR

CFETR

ITER

2020

2018

CFETR

2018

1.

CFETR

Tripod

X

X

CFETR

4 MW

Tripod

X

1

1

1.5-1.8

0.2-0.6

2. CFETR

CFETR

MHD

2

200

3. ITER/CFETR

ITER/CFETR

10 MW/m²

ITER CFETR

beta_N >

2.5 H₉₈>1.0

5

10 MW/m²

50%

20%

4.

alpha

ITER

CFETR

alpha

alpha

$Q \geq 5$

alpha

alpha

ITER/CFETR

alpha

$Q \geq 5$

alpha

ITER/CFETR

$Q \geq 5$

alpha

5.

ITER 0.5 MW

MW
4.6 GHz
0.5
MW
100
6.

CFETR

ODS

10²⁴/m³
10 nm
400°C -500°C/200 dpa
0.1%
≥250J ≥22% ≤-90°C
650°C/120 MPa 5000
200 2020

$\geq 300 \text{ W/m K}$

$\geq 500 \text{ MPa}$

$\geq 400 \text{ MPa}$

$\geq 18\% \quad 450^\circ\text{C}$

$\geq 300 \text{ MPa}$

$\geq 260 \text{ MPa} \quad 450^\circ\text{C}/50 \text{ MPa}$

$10^{-9} \text{ s}^{-1} \quad 400^\circ\text{C} - 500^\circ\text{C}/50 \text{ dpa}$

0.1%

7. CFETR

CFETR

10-50 dpa

CFETR

10-50 dpa

30 dpa

10

dpa

8.

CFETR

dpa

/

He/dpa

3-5 dpa

CFETR

1-2

He/dpa

3-5 dpa

9.

10.

Greenwald

alpha

Greenwald

/

alpha

11.

I

I

12 **20 MW/m²**

20 MW/m²

20 MW/m²

20 MW/m²

20 MW/m²

13

>1000

500°C

50 kPa

1-2

1-2