Deficit of predicted radiated power in detached conditions is likely due to deuterium radiation



- EDGE2D-EIRENE simulations predict experimental plasma conditions and deuterium emission in attached conditions at outer divertor target to within 20% for measured upstream conditions
- Factor of 3-5 shortfall of deuterium emission in detached conditions ⇒ total radiation deficit
- ⇒ Plasma temperature in divertor leg too
 high to produce radiation ⇒
 unaccounted molecular processes?
- Beryllium and carbon emission do not significantly contribute to radiated power

M. Groth 1 (1)

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