## Detachment assisted by nitrogen at $P_{rad}^{div}/P_{sol} \sim \frac{1}{2}$ in both JET-C and JET-ILW



- Analysis of SOL conditions for N<sub>2</sub> seeded
  H-mode plasmas in JET-C and JET-ILW
- LFS detachment by nitrogen, in both JET-C and JET-ILW, when ½ of the SOL power is radiated in the divertor
  - ⇒ Lower intrinsic radiation in JET-ILW, compensated by stronger N radiation
  - ⇒ Increase of pedestal D<sub>0</sub> flux with divertor radiation
- 20 50% higher D<sub>2</sub> versus D<sub>0</sub> fraction in the divertor recycling fluxes predicted for carbon versus tungsten components
  - ⇒ Enhanced molecular power dissipation in JET-C ⇒ 10 - 20% lower P<sub>DIV</sub>

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