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OV/1-3: Overview of the JET Results with the ITER-like Wall

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The JET programme is strongly focussed on the consolidation of the ITER design choices and the preparation of ITER operation. To this aim, during the last two years the materials of the plasma facing components (PFCs) have been replaced with the same combination foreseen in ITER, namely a combination of Be for the main wall and W for the divertor. The installation of the ILW required more than 3000 tiles to be fitted by remote handling manipulators and interfaces. In addition to the new wall, JET has installed several upgrades to active protection systems and diagnostics, vertical stability control and on heating capability with an increase of the routinely-available neutral beam power from 20 MW up to 30 MW. The JET programme in the first set of campaigns after the shutdown was devoted to the development of operational scenarios with the new plasma facing materials and the investigation of the retention properties. In particular, validation of the predictions for ITER in retention levels, breakdown at low voltage, H-mode threshold, confinement level and erosion rates are part of the on-going studies and results obtained so far demonstrate agreement with initial expectations.

Country or International Organization of Primary Author

EU

Collaboration (if applicable, e.g., International Tokamak Physics Activities)

JET-EFDA

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