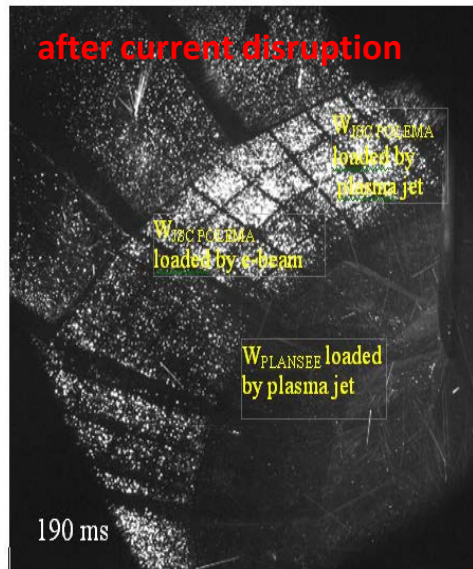
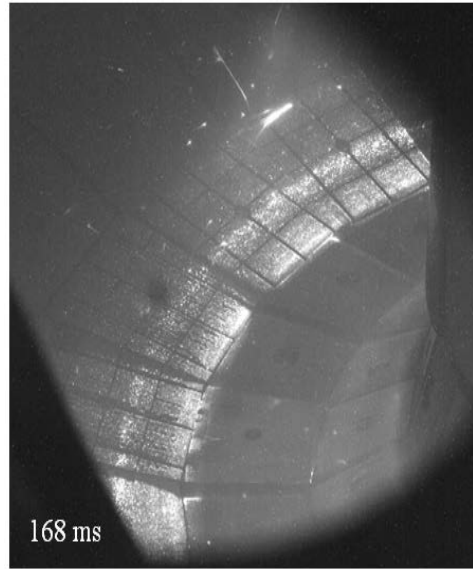
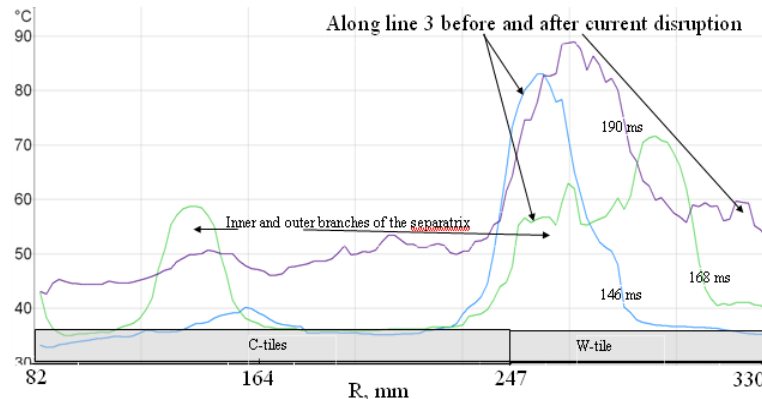
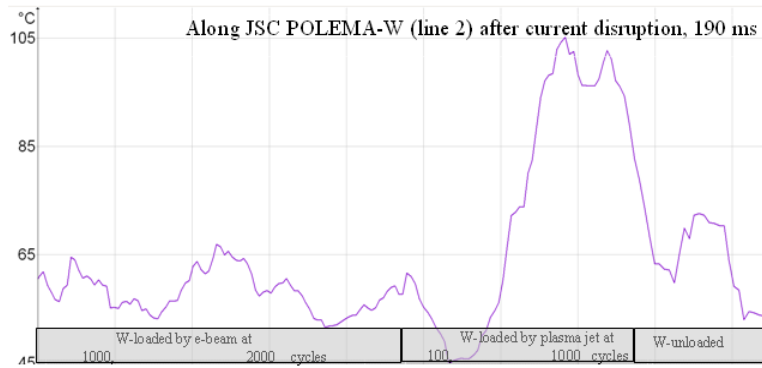
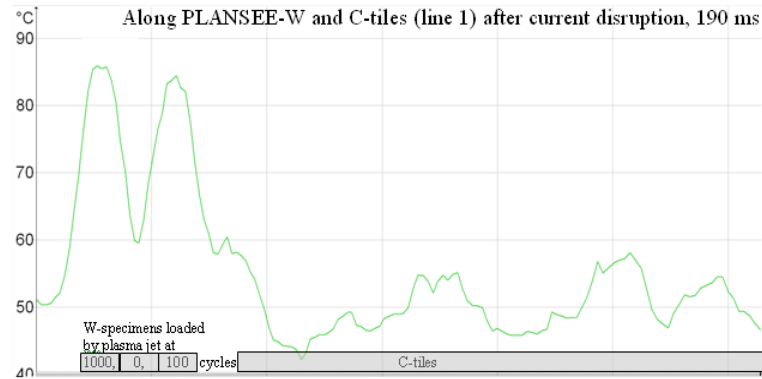


Testing of Mock-ups for a Full Tungsten Divertor on Globus-M Tokamak

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Video frames of the Globus-M divertor before and after current disruption. Shot 32702



Temperature dependencies along different directions on tile surfaces. Shot 32702

A specific divertor target consisting of priority damaged ITER-like W-tile mock-ups was prepared and installed at the outer strike point region of Globus-M lower divertor, where the deposited energy density reaches about 1 - 2 MW/m². The damage was induced by an electron beam and by plasma gun jet. The damage factor was equivalent to the damage produced by 100 - 2000 ELM events in ITER.

No significant changes in discharge behavior of the tokamak Globus-M equipped with preliminary damaged W mock-ups were observed.

But infrared camera showed non-uniform temperature field at the W-tiles. Temperature of W-tiles pre-irradiated with 1000 jet cycles was increased in comparison with temperature of non-irradiated and irradiated with 100 jet cycles.

Temperature of the surface damaged with electron beam was low. It is likely that surface remelted by electron beam didn't lead to formation of loose coating under irradiated surface.