

PECULIAR PROPERTIES OF DISRUPTION ON T-10 TOKOMAK AT DIFFERENT EDGE SAFETY FACTOR VALUES



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The experimental study of density limit disruption on tokamak T-10, for study of dependency a duration of plasma current decay t_{95} (from 100% to 5% of plasma current on quasi state stage of discharge) from edge safety factor q_a was carry out. As result, it was found that, if value q_a integer or half-integer than duration of plasma current decay is high increase, up to 100-115 ms. The main character feature of disruption with a slow current decay is absence of hard X-rays and high level MHD perturbation during all plasma current decay. Thus, from available experimental data, we can conclude, that during a slow current decay, high MHD activity lead to prevent the formation of runaway electron beams.

