

Abstract Submitted
for the DPP10 Meeting of
The American Physical Society

**Observation of Fast Plasma Convection During Disruptions
In Tokamak T-11M** S.V. MIRNOV, A.G. ALEKSEEV, A.M. BELOV, V.B. LAZAREV, GNC TRINITI, Troitsk, Mosc. Reg., 142190 Russia — We investigate fast cross-field plasma convection during disruptions in tokamak T-11M with a lithium limiter. The process of the lithium penetration into the plasma core is used as a marker for identification of the bulk plasma dynamics. The distribution of the impurities is obtained from an AXUV multichannel detector array that measures total radiation of the lithium ions in the process of their penetration from the limiter to the hot plasma region. Fast and deep lithium penetration into the plasma core during disruption events has been reported earlier [1]. The analysis of the previous experiments and the new experimental results allows us to determine important distinctions of the lithium behavior for the cases of minor and major disruption events in the T-11M tokamak. The key element of these differences is the depth of the lithium penetration to the plasma center during disruption development. The results can be useful for modeling and mitigation of the disruption events in tokamaks. [1] A.G. Alekseev, A.M. Belov, E.A. Azizov et al., “Studies of fast penetration of impurities into core plasma during the disruption at T-11M”, 26th EPS Conf. on Cont. Fusion and Plasma Phys., Maastricht, Netherlands, P2.072 (1999).

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Date submitted: 16 Jul 2010

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