

Abstract Submitted  
for the DPP14 Meeting of  
The American Physical Society

**Tungsten and molybdenum transport studies in the TEXTOR tokamak** ARMIN WECKMANN, PER PETERSSON, PETTER STROEM, MAREK RUBEL, Royal Institute of Technology, Stockholm, Sweden, JAN COENEN, ARKADI KRETER, PETER WIENHOLD, IEK-4, Forschungszentrum Juelich, Germany — Understanding the transport of high-Z metals in tokamaks is important for magnetic controlled fusion devices. Two separate experiments aiming at the determination of tungsten and molybdenum migration were performed in the TEXTOR tokamak by means of controlled injection of volatile compounds:  $WF_6$  and  $MoF_6$ . Nitrogen-15 tracer was also seeded for plasma edge cooling. Spectroscopy measurements were done for edge and core plasma. The experiments done on the last day before the shut-downs were followed by comprehensive analyses of plasma facing components (PFC), test limiters and collector probes. Surface studies with ion and electron spectroscopy techniques enabled mapping of the metal content both in toroidal and poloidal position in the whole torus. The material balance and the global and local deposition patterns were determined. The results explain gradual migration of high-Z metals by prompt re-deposition and re-erosion processes. The differences between W and Mo will be addressed. Data on He and N-15 retention will also be presented.

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Date submitted: 04 Jul 2014

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