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P1.3021 Diffusion coefficient of tungsten atoms in argon

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See the full abstract here:
http://ocs.ciemat.es/EPS2019ABS/pdf/P1.3021.pdf

We present an experiment, based on laser induced fluorescence spectroscopy, developed to register small concentrations of atomic Tungsten and to determine its transport properties (diffu- sion coefficients) in various buffer gases. A pulsed tunable dye laser is routed through a hollow cathode where tungsten atoms are sputtered in a pulsed-mode gas discharge. The laser is tuned to a preselected resonance line and its pulses are triggered with a delay after the end the dis- charge pulse. The resulting fluorescence of the atoms is registered by varying the time delay, thus observing the decay of the concentration of particles. The completed experimental setup, the results acquired so far and future plans will be presented. The method is still to be developed to diagnose the absolute concentration of Tungsten atoms, which would be helpful to evaluate the contamination in the working volume of plasma devices.
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