Contribution ID: **19** Type: **poster**

Experimental studies for rubidium-plasma generation by femtosecond laser pulses

Wednesday, 16 September 2015 19:30 (30 minutes)

The key element in the Proton-Driven-Plasma-Wake-Field-Accelerator (PWFA) experiments is the generation of highly uniform plasma from Rubidium vapor. In the Wigner Research Center of the Hungarian Academy of Sciences we developed an experimental facility which is capable to create an extended - a 25 cm long rubidium plasma via laser interaction. Some properties of the laser plasma can be examined via absorption and spectroscopic measurements from the sides at different temperatures. This study presents the recent results.

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Session Classification: Poster Session 2 (WG5-WG6-WG7) and Wine