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Laser Induced Fluorescence Spectroscopy for Measuring Flow Vector in Scrape-Off Layer Plasma EIICHIROU KAWAMORI, High Temperature Plasma Center, The University of Tokyo, YASUSHI ONO, Graduate School of Frontier Sciences, The University of Tokyo — The experimental study of flow of scrape-off layer (SOL) plasma upstream from the divertor target is crucial for clarifying the mechanisms of divertor plasma detachment. The novel diagnostic technique to measure a two-dimensional (2-D) vector field of flow on poloidal cross section is proposed and the new system using the technique is developed. This scheme employs Laser Induced Fluorescence (LIF) spectroscopy with RApid Frequency Scan (RAFS) Dye laser system [1]. A snap shot of the ion poloidal velocity space can be obtained from the time trace of fluorescence intensity. Toroidal component of flow velocity can be simultaneously obtained from the Doppler shift measurement. In this poster presentation, we will report the progress of construction of RAFS Dye laser system. [1] C. Honda, et al., Rev. Sci. Instrum. , Vol. 58, 758 (1987).

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