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Absorption spectra of monolayer MoS2 in high magnetic field HUNG-DUEN YANG, Natl Sun Yat Sen Univ, JIM-LONG HER, Chang Gung University, SHOJIRO TAKEYAMA, YASUHIRO MATSUDA, The University of Tokyo, The Institute for Solid State Physics Kashiwanoha 5-1-5, Kashiwa, Chiba #277-8581 Japan, KAI-HSUAN WANG, Natl Sun Yat Sen Univ — We have measured the absorption spectra of monolayer MoS2 film at several temperatures in pulsed high magnetic fields up to 52 T. At room temperature, the observed spectrum dominated by two main peaks, which are located at 660 nm and 606 nm. These peaks are ascribed to excition and trion absorption peaks respectively [1]. At low temperature (4.2 K), two peaks show the blue shift to 633 nm and 588 nm, respectively. Irrespective of the temperature, applying magnetic field does not show pronounced influence on the peaks even in 52 T.

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