Kanata optical photometric and polarimetric observations of MAXI J1659-152

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Abstract

MAXI J1659-152 (R.A., Dec = 16h59m10s, -15d16m05s) (J2000) was first detected as GRB 100925A by Swift/BAT. Then, this source turned out to be a Galactic X-ray transient because an X-ray pre-activity before the Swift/BAT trigger had been reported. We observed the optical counterpart of this X-ray transient with the 1.5m Kanata telescope located in Higashi-Hiroshima Observatory. We performed photometric observations using the V, Rc, Ic band filters. We began observations at 2010-09-28 10:00 UT (MJD 55467.418). The magnitudes of this source were V=16.6+/-0.2 (calibrated against The Tycho-2 Catalogue), Rc=16.0+/-0.1, and Ic=15.8+/-0.1 (calibrated against The USNO-B1.0 Catalog) at the first night. We found that the R- and I-band fluxes then decreased gradually. The source faded to R=16.8+/-0.2 and I=16.4+/-0.1 at 2010-10-06 10:16 UT. We report those photometric results and, in addition, the result of polarimetric observation in our poster.