

Analysis of Peculiar Dips Changed of SDSS J102102.25+174439.9 Light Curve

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We followed up the new eclipsing white dwarf main sequence SDSS J102102.25+174439.9 with a short orbital period of 0.14 days from the Sloan Digital Sky Survey. The system has been observed by using on the 2.4m telescope at the Thai National Observatory (TNO) with ULTRASPEC instrument. Our multi-band observations shows peculiar dips about 15 minute after the primary eclipse. Such dips in WDMS systems were only observed on one occasion of the light curve of QS Vir earlier. The dips in SDSS J1021+1744 are unique because they present in different wavelengths at approximately the same phase. It is possible that these dips are caused by the ejected materials from an active companion star, such as in QS Vir. The light curve in g' filter exhibits deep and narrow features, implying that the materials which pass in front of the white dwarf in SDSS J1021+1744 must be dense and small in size. Furthermore, the stellar and orbital parameters SDSS J1021+1744 are presented.

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