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Comparative analysis of observations of the selected exoplanet transits obtained at the Kyiv Comet station, with TESS and Kepler Space Telescopes

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We present a comparative analysis of observations of the selected exoplanet transits obtained at the Kyiv Comet station with the database of the TESS (Transiting Exoplanet Survey Satellite) and Kepler space telescopes. The light curves obtained by the TESS and Kepler orbital telescopes were processed using a program based on the Python package Lightkurve 2.3v which is freely available in the MUST archive (Barbara A. Mikulski Archive for Space Telescopes). The ground based observations were carried out with the 70-cm telescope AZT-8 (Lisnyky). Photometric processing of the ground based observation was performed by using the Muniwin program. The light curves and parameters of the observed transits as well as the exoplanet orbital parameters obtained from ground based observations were published in the ETD (Exoplanet Transit Database). Determined transit parameters were compared with the results of the TESS command, which are stored in the MUST archive. Here we presents a comparison of the parameters of transit phenomena (period, depth, transit duration) and some orbital parameters obtained from two independent sets of observations, terrestrial and orbital, performed in different epochs.

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