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# SPARC4 Polarimetry and TESS Photometry of the polar cataclysmic variable CRTS J150354.0-220710

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### Abstract

We present photometric and polarimetric analyses of the polar cataclysmic variable CRTS J150354.0-220710, observed at the Pico dos Dias Observatory with the new SPARC4 multi-band polarimetric module attached to the Perkin-Elmer 1.60m telescope, and by the TESS space telescope. This object was selected for follow-up observations after exploratory studies revealed a spectrum with typical polar signatures. The polarimetric data show the presence of circularly polarized emission up to a 20% level, modulated by the 133.4 min orbital period. Furthermore, these results demonstrate the potential of the SPARC4 module for observing binaries of this nature. The shape of the light curve obtained from the TESS data resembles those obtained by SPARC4.