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[Abstract]

Full-disk Solar Observations of the Solar Chromosphere (Hα) and Transition Region (CaII K) from the Rozhen National Astronomical Observatory

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Abstract: We present the initial results from the newly commissioned telescopes designed for solar observations in the Hα (6562.8 Å) and CaII K (3933.7 Å) spectral lines. The telescopes are refractors with free apertures of 130 mm and 100 mm, respectively, and are capable of imaging the full solar disk. The bandwidth of the Hα filter is <0.5 Å, and <2.4 Å for the CaII K line. We are presenting the technical parameters and resolution capabilities of the observational equipment. The system also includes 16-bit digital cameras capable of recording up to 20 fps, enabling the detection and analysis of rapidly evolving active events on the solar disk.

Keywords: Solar Chromosphere, Solar activity, Solar observations

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