SEARCH FOR RAPID VARIABILITY IN SPECTRUM OF ALPHA ANDROMEDAE

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ABSTRACT

Radial velocities of the Hg - Mn star & Andromedae were measured using the Hg-Hg and CaII K line on 27 high dispersion (2.7A/mm) spectrograms. While the radial velocities obtained from the Balmer lines showed no significant variations, those derived from the CaII K line vary within the limits of 5 and 13 km/s. A freguency analysis of the Call K RV values leads to two different frequences of 27.86 and 35.20 c/d. Their superposition results in a 196 min beat-phenomenon period. The halfwidth of the calcium line varies in a way which can be explained by nonradial oscillations.

Malanushenko measured halfwidths, central depths and equivalent widths of the Call K line on the same spectrograms. His results indicate a periodicity of 60 min.

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