

THE LIGHT CURVE OF V3804 SAGITTARI

by

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Abstract

A light curve spanning the years 1925 to 1975 is presented. The irregularity of the curve is similar to that of some symbiotic stars.

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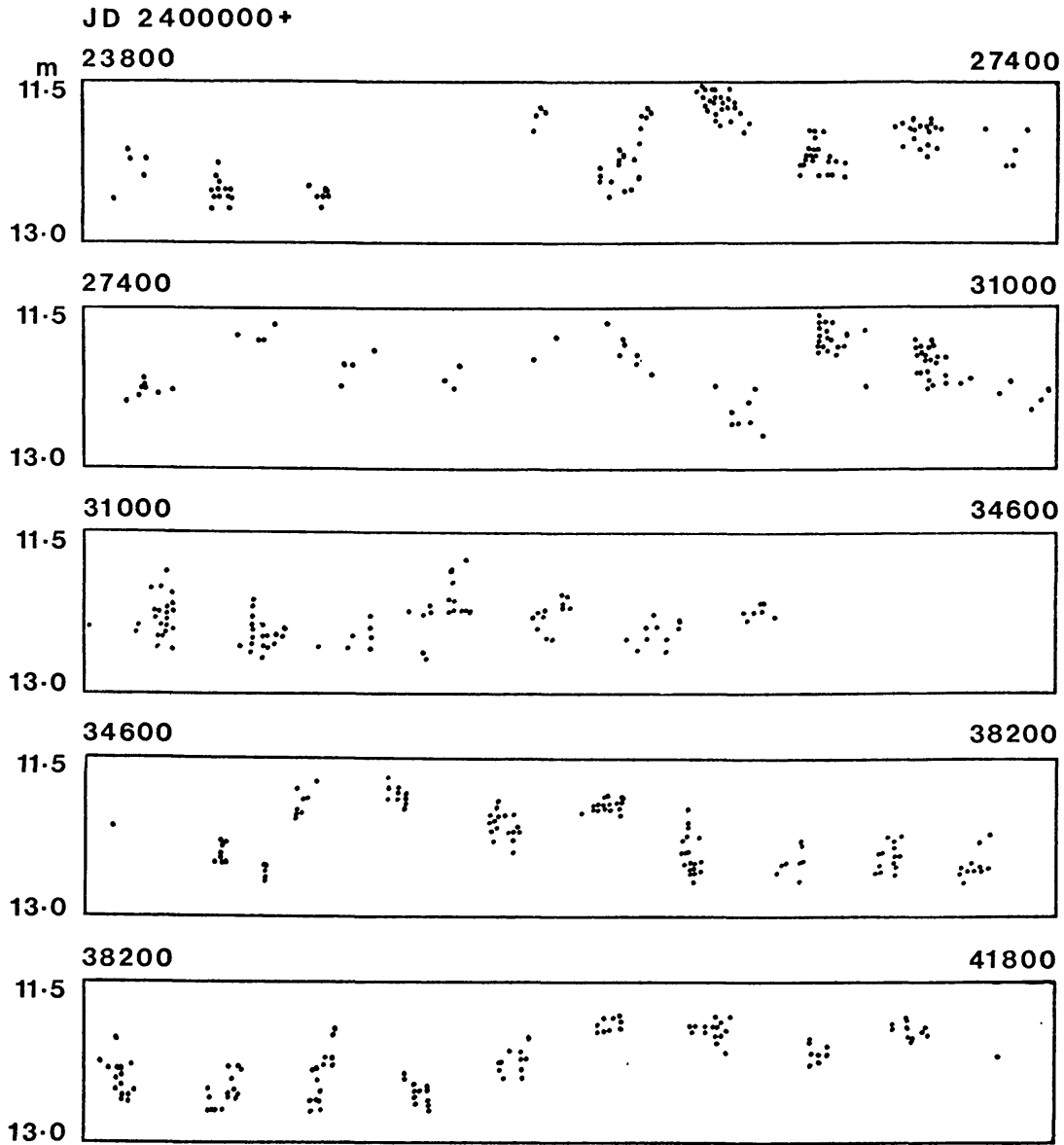
The accompanying light curve of V3804 Sgr has been derived from approximately 500 photographic plates taken on Nantucket from 1956 to 1975 and approximately 500 plates of the Harvard collection including B, MF, and RB series covering 1925 to 1950.

No periodicity has been found. The major variations are on a time scale of several years. Smaller magnitude changes within a shorter period are possible but observational error would mask such variations. The irregularity of the curve is in accord with G. H. Herbig's (1969) description of the star as possibly symbiotic on the basis of its spectrum. A symbiotic star shows the emission spectrum of a hot O or B type star superimposed on a cool K or M absorption spectrum. The light curve of a symbiotic star is usually irregular. These stars are generally thought to be binary systems surrounded by nebulosity.

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REFERENCE

Herbig, G. H. 1969, Contributions of the Lick Observatory, No. 299



Light curve of V3804 Sgr. Each strip represents a time span of 3600 days. The first three strips are from Harvard plates; the last two from Nantucket plates.