

THE MEAN STELLAR SPECTRA OF COOL GIANT STARS

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ABSTRACT. The mean values of energy distributions in spectra of cool stars of various spectral types have been found using the Catalogue of spectra of 555 stars.

Key words: Cool giant stars, evolution of stars

The mean distributions in radiation spectra of cool giant stars in wide range of wavelengths are necessary for investigation of short- and long-time variations of various spectral features, determination of mean characteristics of stars, the determination of continuum placement in spectra of quiet cool stars and so on. Approximately 30 years ago the observations of spectra in near IR-region of stars of various spectral types using the methods of absolute-relative spectrophotometry were begun at Odessa Astronomical Observatory following prof. V.P. Tsessevich's example.

The new catalogue (Komarov et al.) of energy distributions in spectra of 555 stars have been used to receive the mean distributions of energy in spectra stars. Here we present only the data for cool giant stars which have been used for comparison of theoretical (synthetic) and observed stellar spectra (Belik et al.). These distributions are given on Figures 1-6 with list of BS-numbers of stars which were averaged.

Reference

Komarov N.S., Dragunova A.V., Belik S.I. et al.: 1995, *Odessa Astron. Publ.*, **8**, 115
 Belik S.I., Dragunova A.V., Komarov N.S.: 1997, *Odessa Astron. Publ.*, **10**.

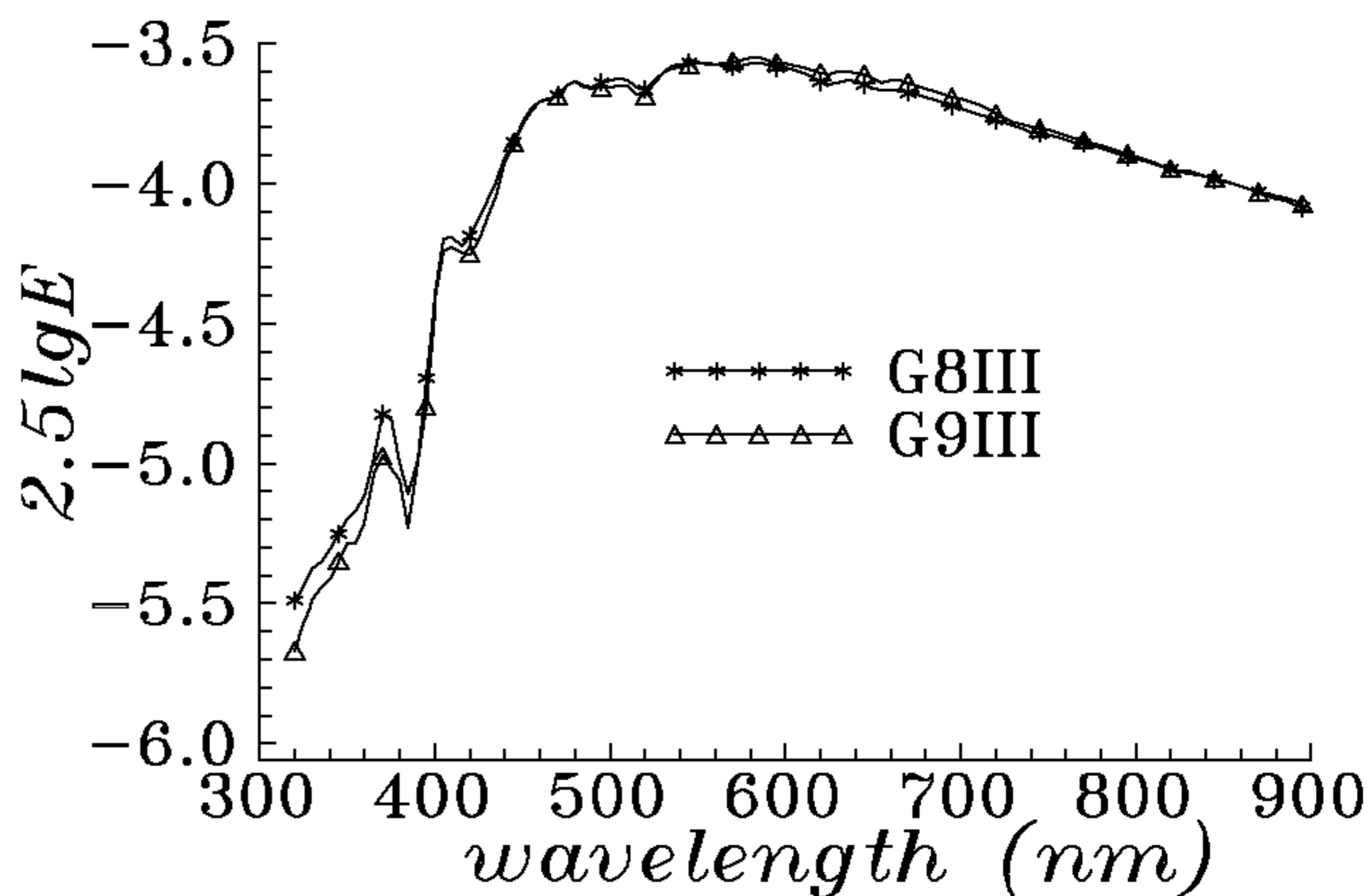


Figure 1. G8III: BS 2985, 5602, 5681, 6075, 6132, 6148; G9III: BS 4471, 4932, 7310, 7754, 8538.

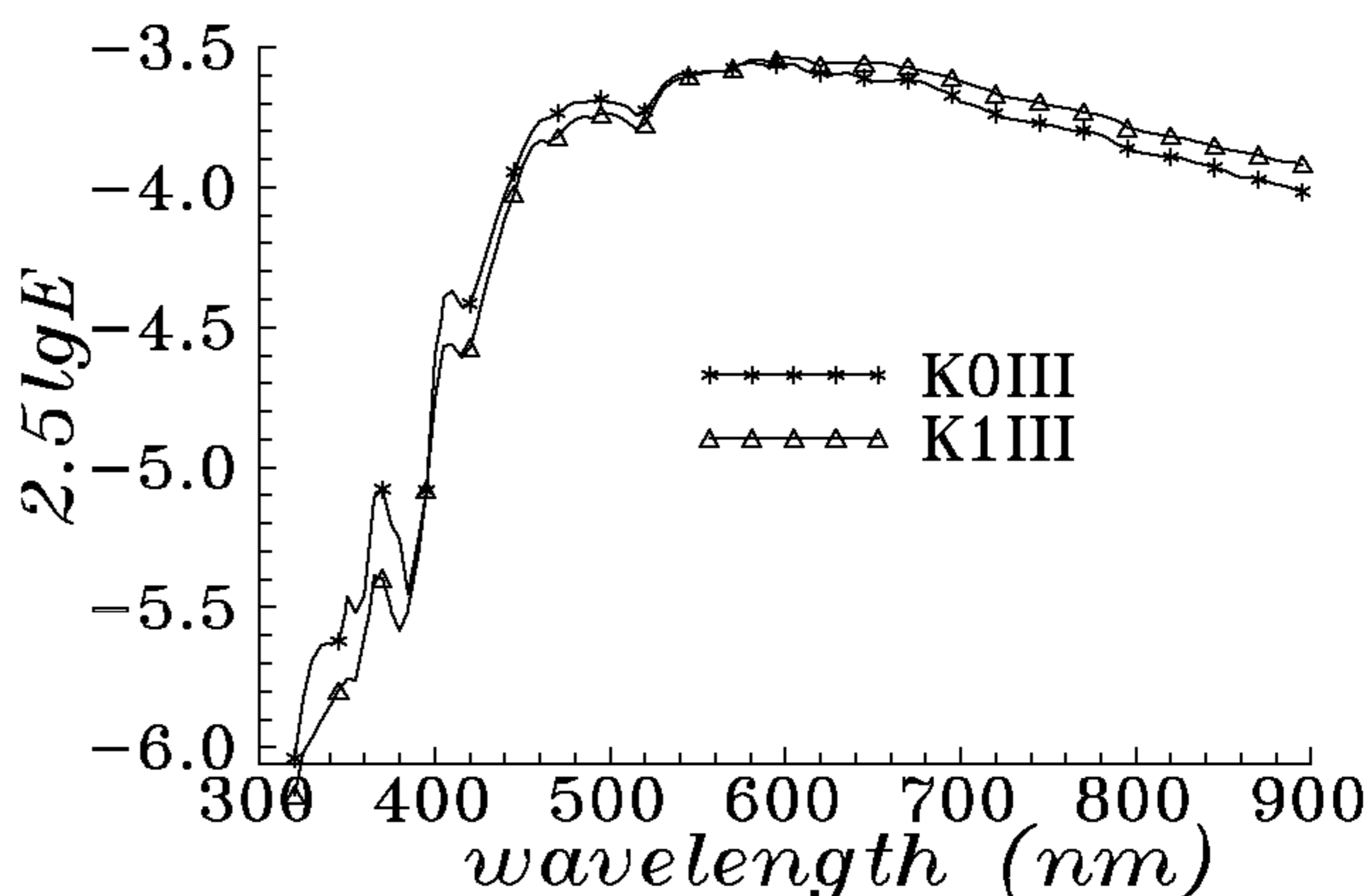


Figure 2. K0III: BS 188, 2990, 3547, 4301, 6698, 7949; K1III: BS 7150, 7193, 7234, 8173, 8694.

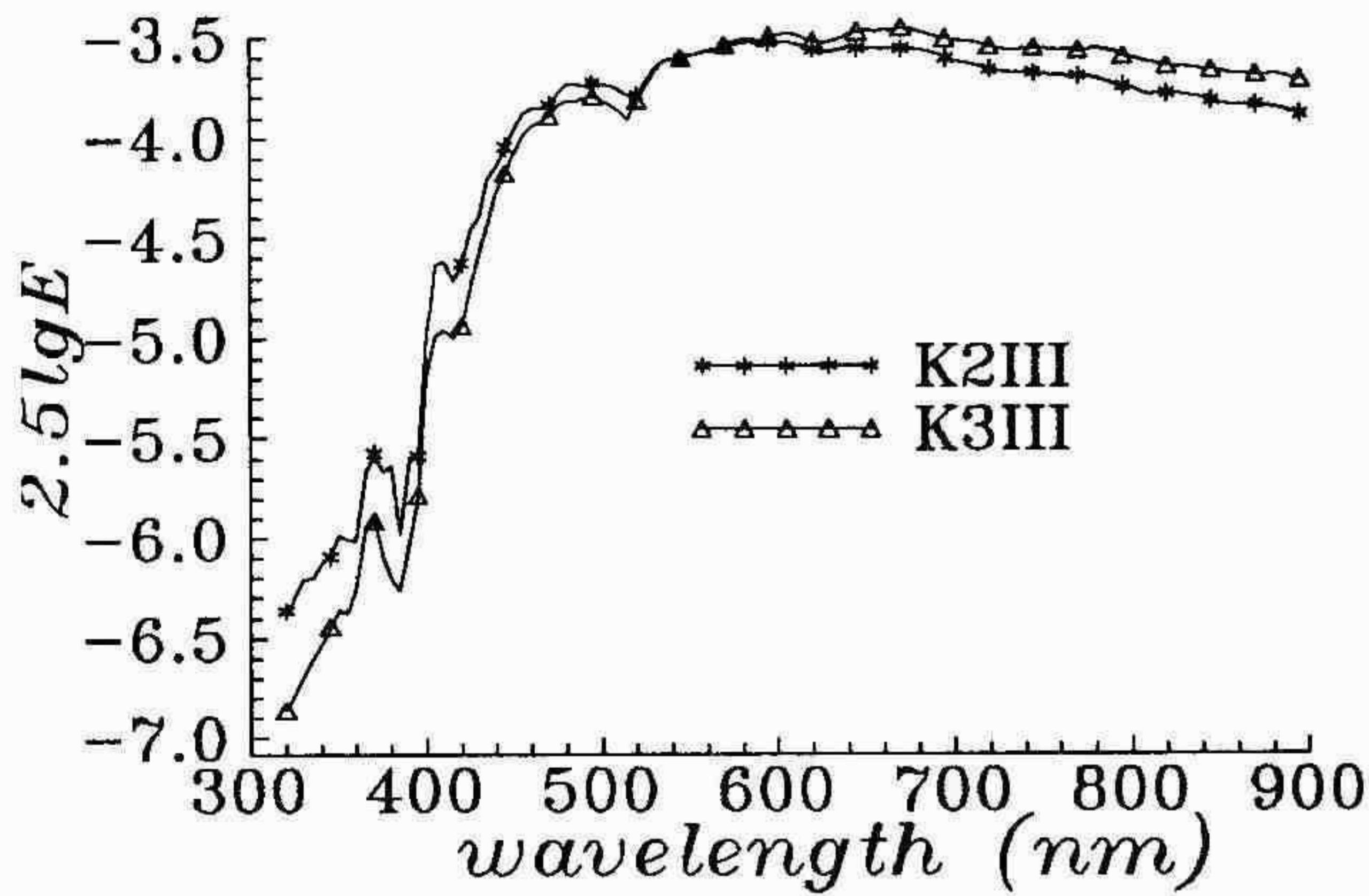


Figure 3. K2III: BS 74, 334, 617, 5854, 6603; K3III: BS 165, 464, 3845, 5429, 6973.

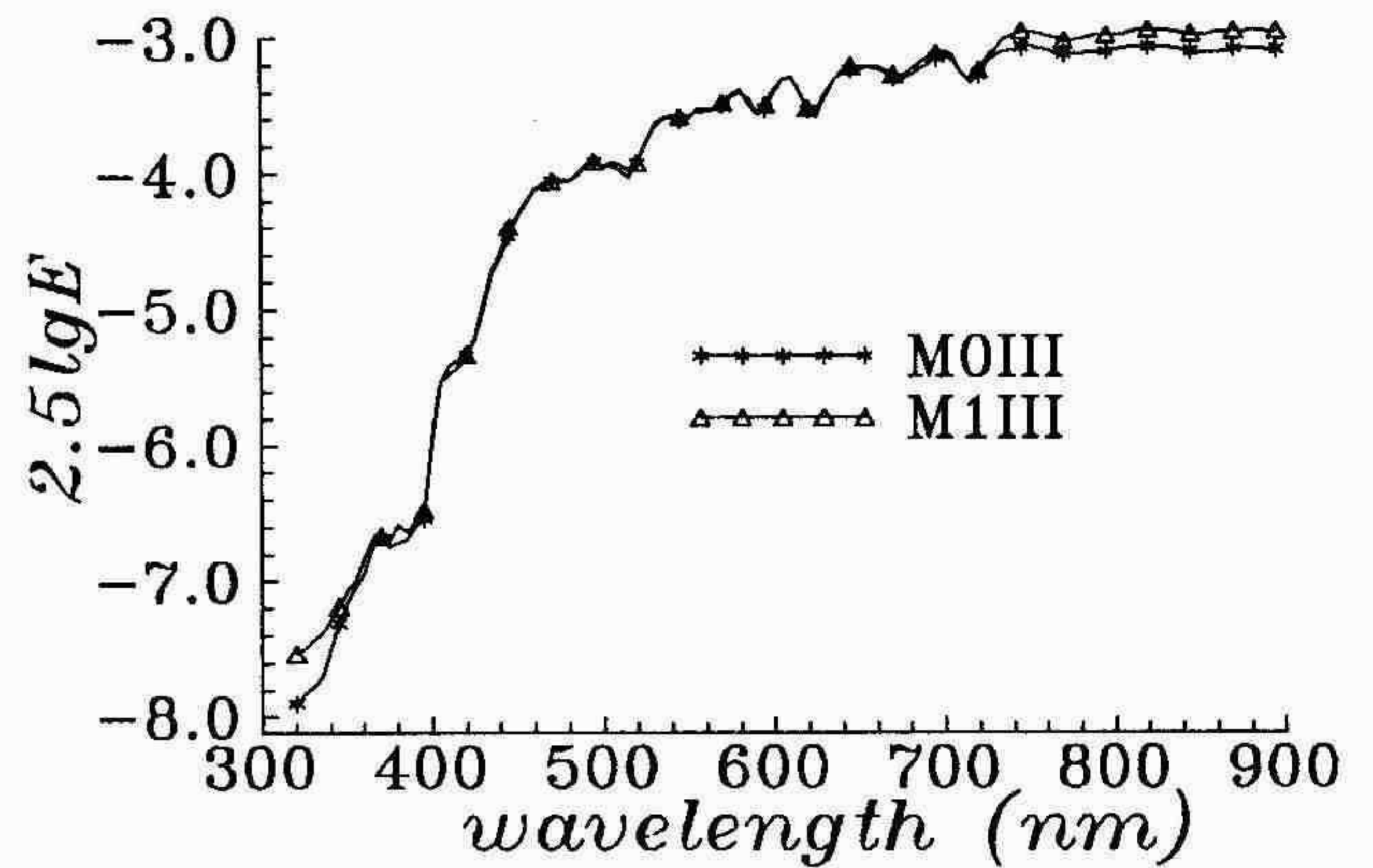


Figure 5. M0III: BS 1231, 2905, 3705, 4069, 4434, 7405; M1III: BS 585, 2011, 4517, 6056, 8225, 8284.

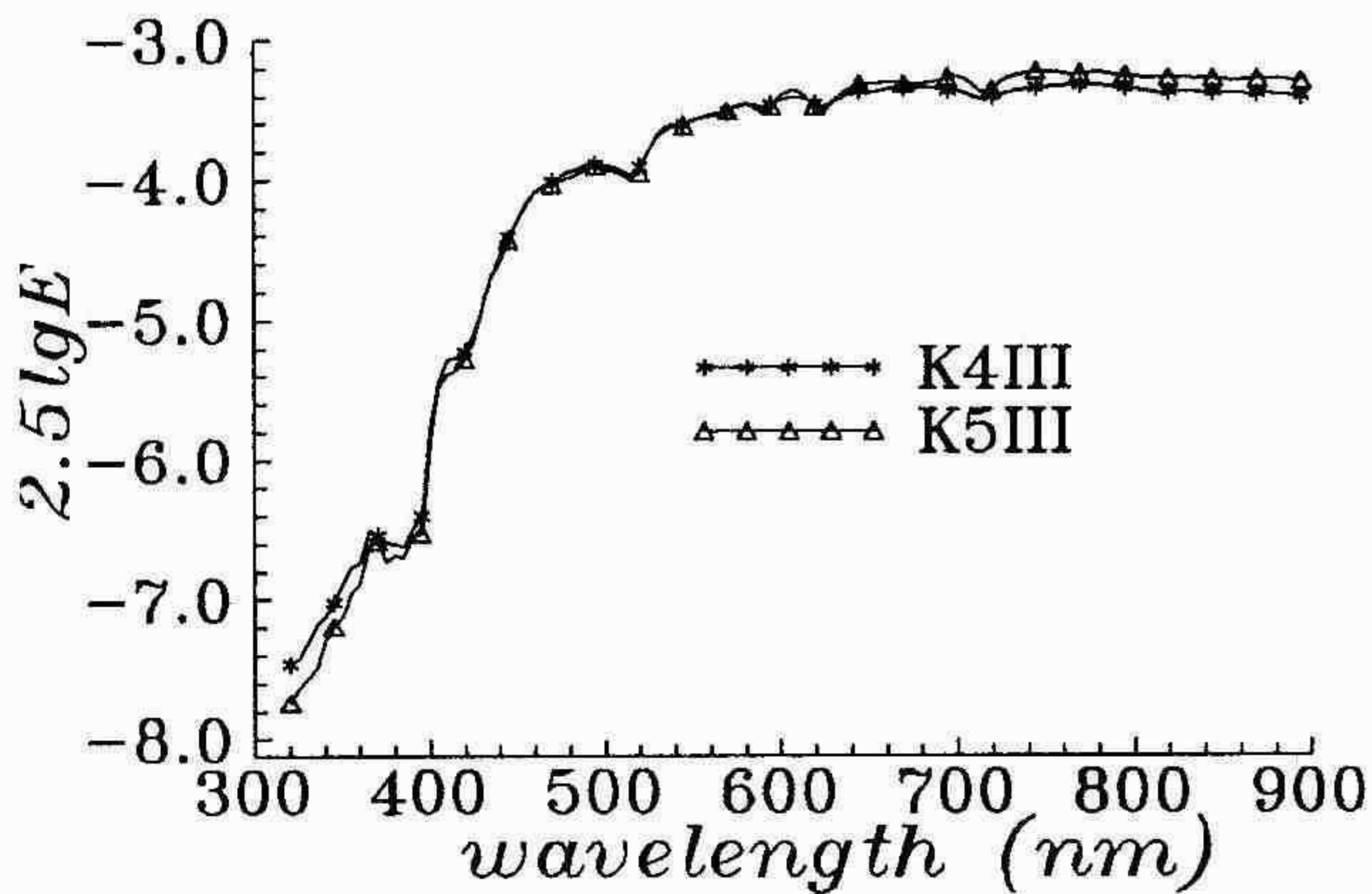


Figure 4. K4III: BS 999, 3249, 3980, 5430, 5563, 5600; K5III: BS 224, 1457, 1654, 3773, 5200, 6705, 7635.

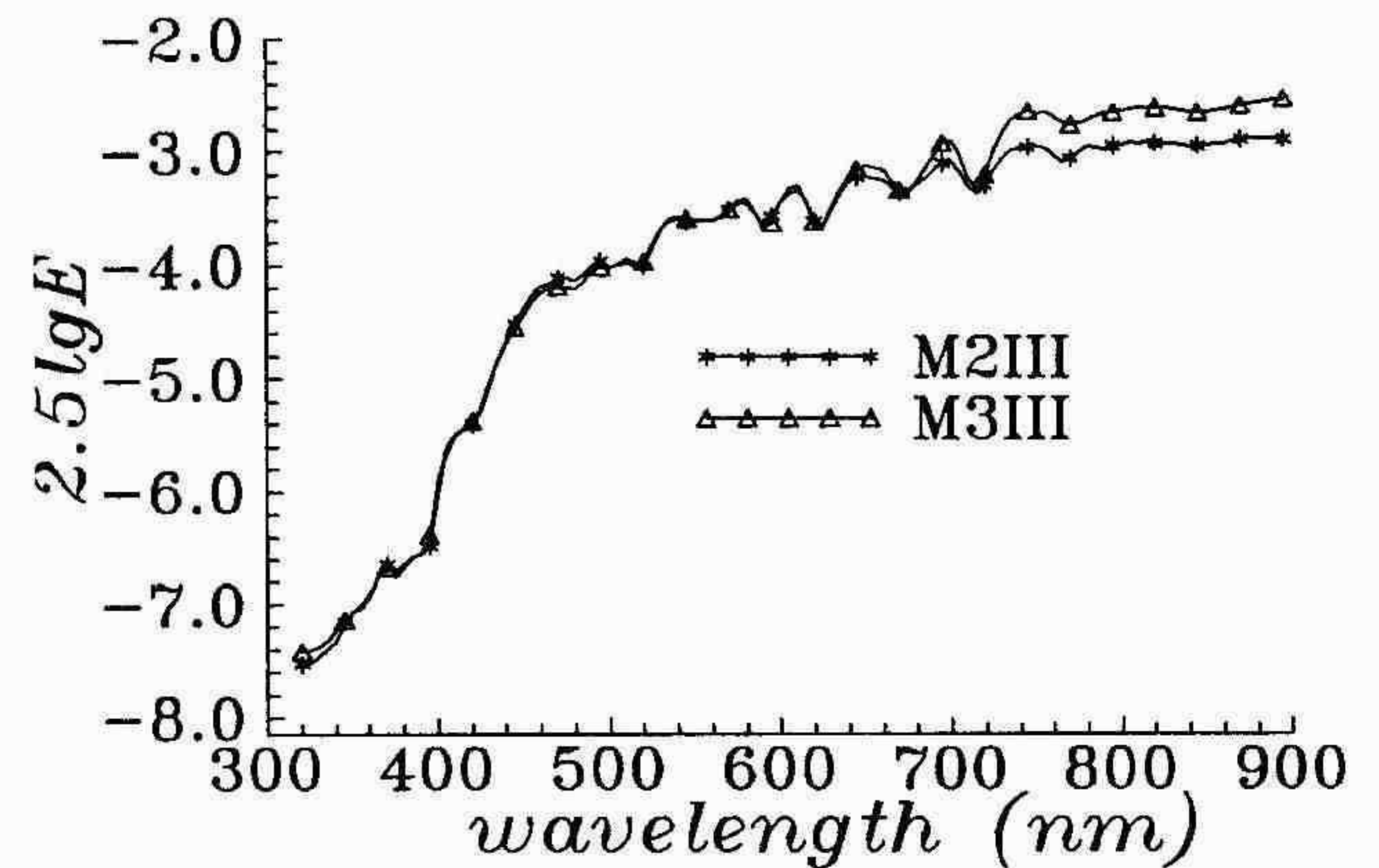


Figure 6. M2III: BS 45, 1162, 3950, 5154, 6200, 8795, 8834; M3III: BS 1451, 4902, 6337, 7951, 9036.