Wavelength Dependence of Extinction and Polarization

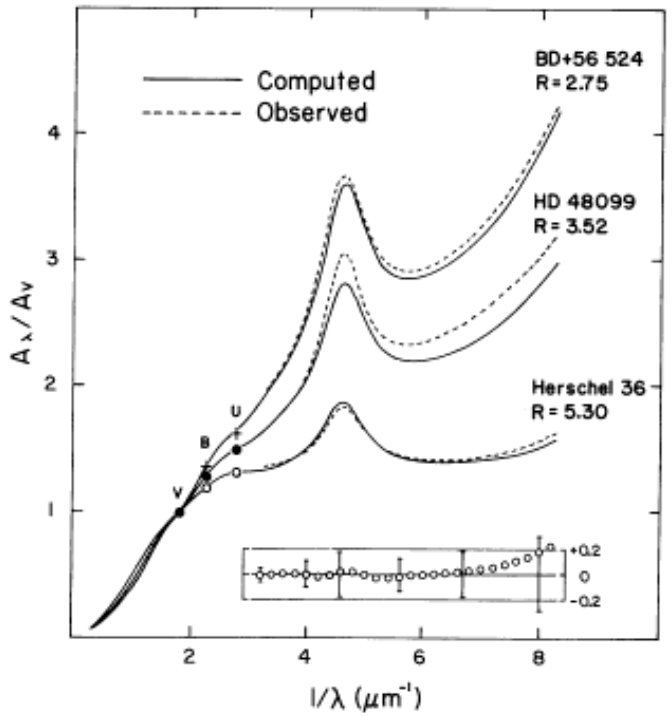

FIG. 4.—Same as Fig. 3 except for the UV portion of the mean R_V-dependent extinction law from eq. (4). The data at U, B, and V from Fig. 3 are also plotted. Again, the "error" bars in the lower inset represent the computed standard deviation of the data about the best fit of $A(\lambda)/A(V)$ vs. R_V^{-1} with $a(x) + b(x)/R_V$. The open symbols in the inset represent the difference between $A(\lambda)/A(V)$ from eq. (4) and the average curve of Seaton (1979) for $R_V = 3.2$. The only serious deviation occurs for $x > 7\ \mu m^{-1}$ (see text).

Cardelli, J. A., Clayton, G. C. & Mathis, J.S.1989, ApJ, 345, 24

$$p/p_{max} = \exp\left[-K \ln^2 (\lambda_{max}/\lambda)\right]$$

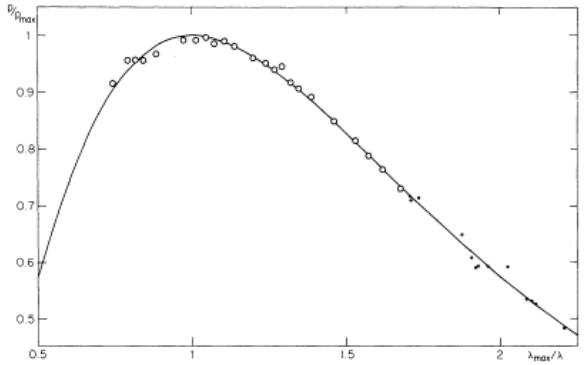

FIG. 3.—The normalized wavelength dependence of interstellar linear polarization derived from the observations with the Siding Spring multichannel polarimeter-photometer. The solid line is calculated from eq. (4) for $K = 1.15$. Every open circle is based on 20 stars, while each dot represents the observations of an individual star with a particular filter.

Serkowski, K., Mathewson, D. L.& Ford, V. L.1975, ApJ, 196, 261