

B. INTERSTELLAR EXTINCTION

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(*Introductory lecture*)

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In the introductory talk as presented at the symposium I expressed the expectation that it could be thoroughly superseded by the papers and discussions remarks presented at the symposium.

It has.

Discussion

Greenberg: I would like to take this opportunity to reemphasize certain key observations in the UV which I believe will help to distinguish between absorption (metallic) and dielectric grains.

(1) The prediction based on the optical properties of elongated dielectric grains that the *extinction* in the UV relative to the visible is less for stars seen perpendicular to magnetic fields than for those seen along magnetic fields (roughly this corresponds respectively to stars with high and low degrees of polarization).

(2) The polarization by dielectric particles decreases more slowly in the UV than the polarization by absorbing particles.

Wickramasinghe: The condition for a grain to remain cold (i.e. at ~ 3 K) is that $Q_{\text{abs}}(\text{vis}) \leq Q_{\text{abs}}(0.1 \text{ cm})$.

It turns out that this condition is satisfied provided that the conductivity of silicates lies between 6×10^{11} and $5 \times 10^{10} \text{ sec}^{-1}$.

The data on silicates do not seem to be incompatible with this requirement.