

and Fermi had used $\alpha = 0.1$ radians, they would have found that the magnetic field was 1.4×10^{-5} gauss. It is also of some interest to note the relationship between σ and $[\delta/(E_1 + 0.05)]_{av}$ in the different regions. With the exception of group 2, they are roughly inversely proportional, as would be expected if the polarization, δ , was caused by a magnetic field. The apparently anomalous behavior of group 2 could be explained by noting that the polarization angles show a bending with increasing galactic longitude through the large region. This may be seen in Hiltner's Figure 9, *b*. This produces the large value of σ and the change in $[\theta']_{av}$ from group 2 to group 3, but any subregion of group 2 (such as group 3) would allow smaller values of σ .

It is impossible at the present time to relate the magnetic field strength, the polarization, and the color excess in any very accurate way. Not enough is known about the structure of the magnetic field or the variation in density and velocity of the interstellar medium. And also, as has been suggested by various authors, including Hall and Mikesell⁶ and Hiltner, there is no very good relation between the polarization and the color excess, because the particles causing both may not be the same and also because the starlight generally has passed through several clouds. The color excess is not affected by different particle alignments in different clouds, but the resultant polarization would be.

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⁶ J. S. Hall and A. H. Mikesell, *Pub. U.S. Naval Obs.*, Vol. 17, Part I, 1950.

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ERRATUM

In *Ap. J.*, 116, 21, 1952, on page 25, line 5, for "In Cr I" read "In V I." The designations in Table 6 are correct.