

Fig. 8. Experimental curves of polarization characteristics as a function of field strength for Dixon and Acheson Graphites.

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## REFERENCES

- George V. Coyne, Polarization by Interstellar grains, in Planet, Stars and Nebulae studied with photopolarimetry, Ed. T. Gehrels, The University of Arizona Press, Arizona, 888, (1974).
- P. G. Martin, Interstellar Circular Polarization A new approach to the study of interstellar grains, in Planet, Stars and Nebulae studied with photopolarimetry, Ed. T. Gehrels, The University of Arizona press, Arizona 926, (1974).
- 3. H. S. Shah, J. N. Desai and Y. G. Naik, Indian J. Pure Appl. Phys.

**6,** 282, (1968).

- H. C. Van de Hulst, Light scattering by small Particles, John Wiley, New York, 70 (1957).
- 5. E. C. Stoner, Phil. Mag. 36, 803, (1945).
- Curie E. Pieters. Polarization in a Mineral Absorption Band, in Planet, Stars and Nebulae studied with photopolarimetry Ed. T. Gehrels, The University of Arizona Press, Arizona (1974).
- J. Svatos, M. Sole and V. Vanysek, Astrophysics and Space Science 34, 149, (1975).
- 8. F. D. Stott, Proc. Phys. Soc. **B62**, 418, (1949).
- 9. Optical transmission measurements through samples of colloidal graphite under magnetic field.
  - J. B. Bhagat, D. M. Bhagat, R. V. Mehta and H. S. Shah, J. Optics, **6**, **1**, (1977).

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## **Computer Generated Holography**

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ABSTRACT: The article reviews the state of art of the computer generated holography. Sec. 2 deals with the various coding schemes to record both the amplitude and phase of the field at the hologram plane. Special emphasis is given to those coding schemes which are used for the generation of binary holograms. The theory of discrete Fourier transform 'DFT) hologram and its optical reconstruction are treated in Sec. 3- The introdution of randomizer in front of the object while computing the D.F.T. and its influence on the reconstructed image have been discussed. Sec. 4 contains some of the major applications of the computer generated