and semiconductors is based on determining their resistance as a function of temperature at low temperatures.

In this paper we set out the results of a study of the electrical resistance of chromium sulfides at low temperatures and their galvanomagnetic properties.

1. <u>Electrical Resistance of Chromium-Sulfur Compounds at Low Temperatures.</u> ~~xE~~ We measured the resistances of various chromium-sulfur compositions at temperatures of..... . The results are shown graphically in Fig. 1, which indicates the relative change in resistance R/R_o, where R_o is the resistance at 273^oK. We see from the graphs that the resistance of the chromium sulfides with sulfur contents of 50 to 51 at.% tends to a low residual value at low temperatures, as in the case of metals, ~~xxxxxxxx~~ and not semiconductors; chromium-sulfur compounds with a greater excess of sulfur (58 to 59 at.%) become insulators at low temperatures.

2. <u>Hall Effect</u> . ~~This was sought.~~ We tried to determine the Hall effect in chromium-sulfur samples by means of a compensator. ~~xE~~ Despite the high sensitivity of our apparatus and the use of magnetic fields up to 22,000 Oe, we were unable to measure the Hall effects in any of the chromium sulfide samples studied. We can only assert that the Hall constant was smaller than 10^{-4} cm^3/C, which corresponds to an electron concentration larger than that obtained from electrical-conductivity data. The electrical conductivity.....is of the order of 10 to 10^3 $\Omega^{-1}.cm^{-1}$; on the basis of this value, and also assuming an electron mobility for semiconductors of 10 to 10^2