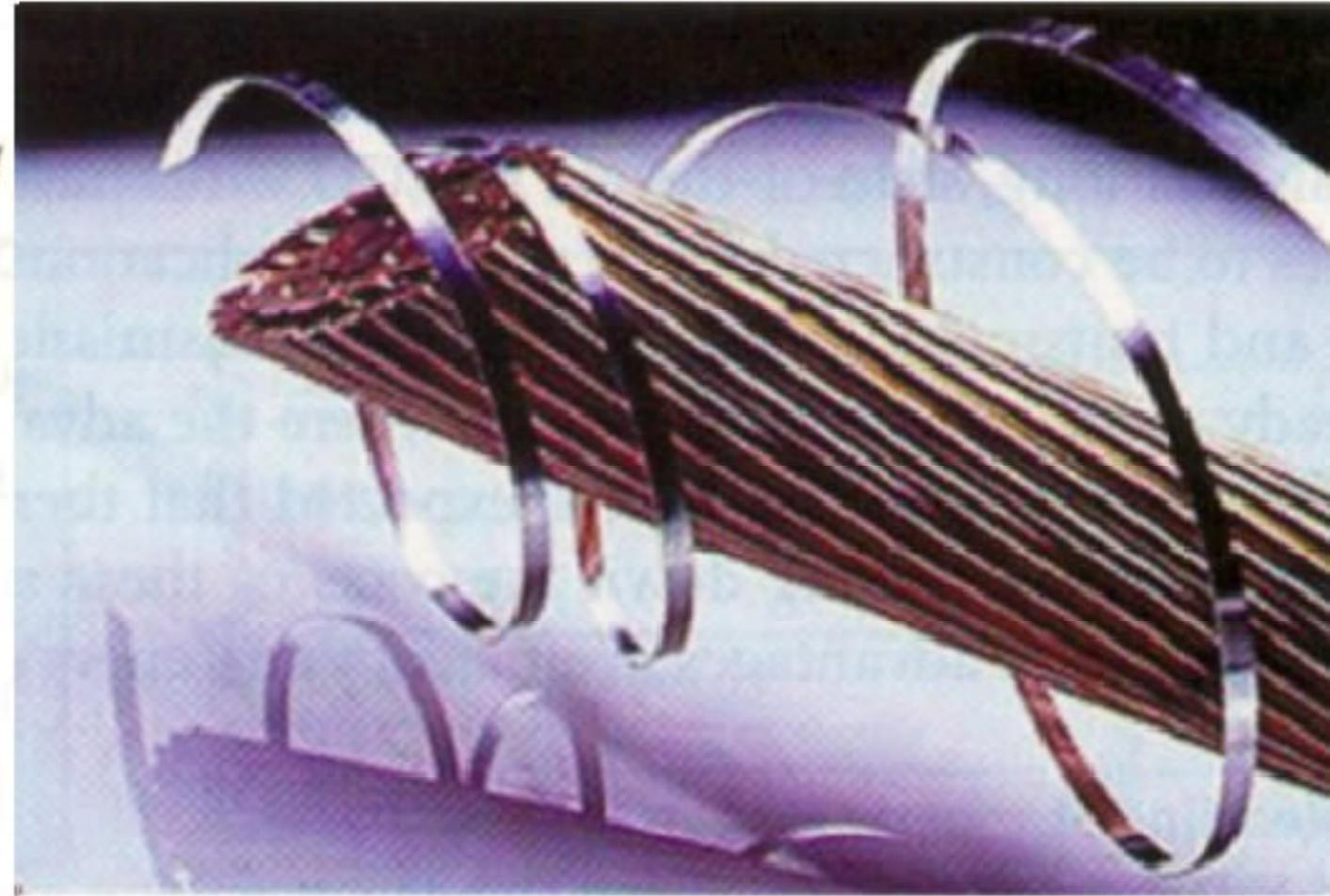
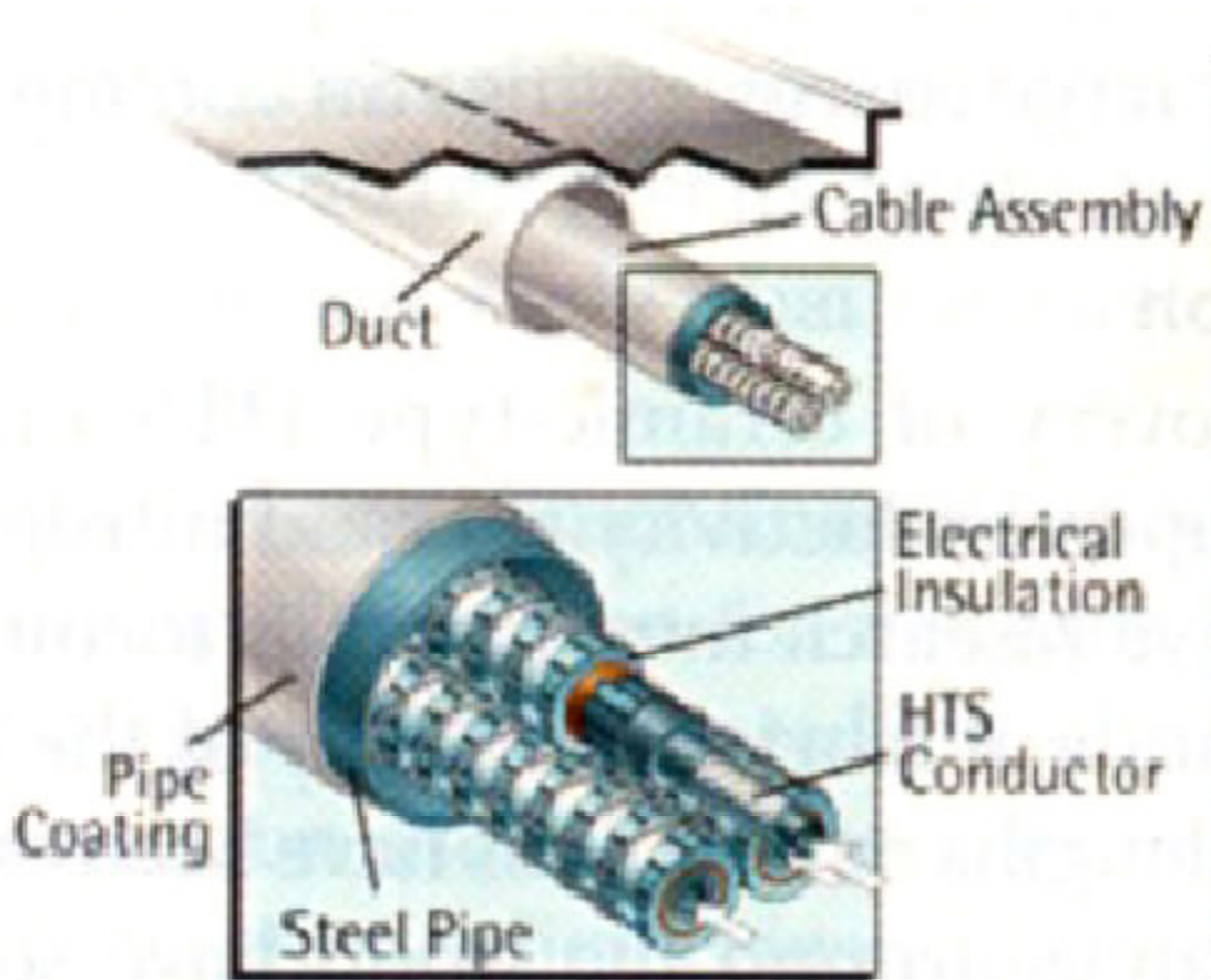
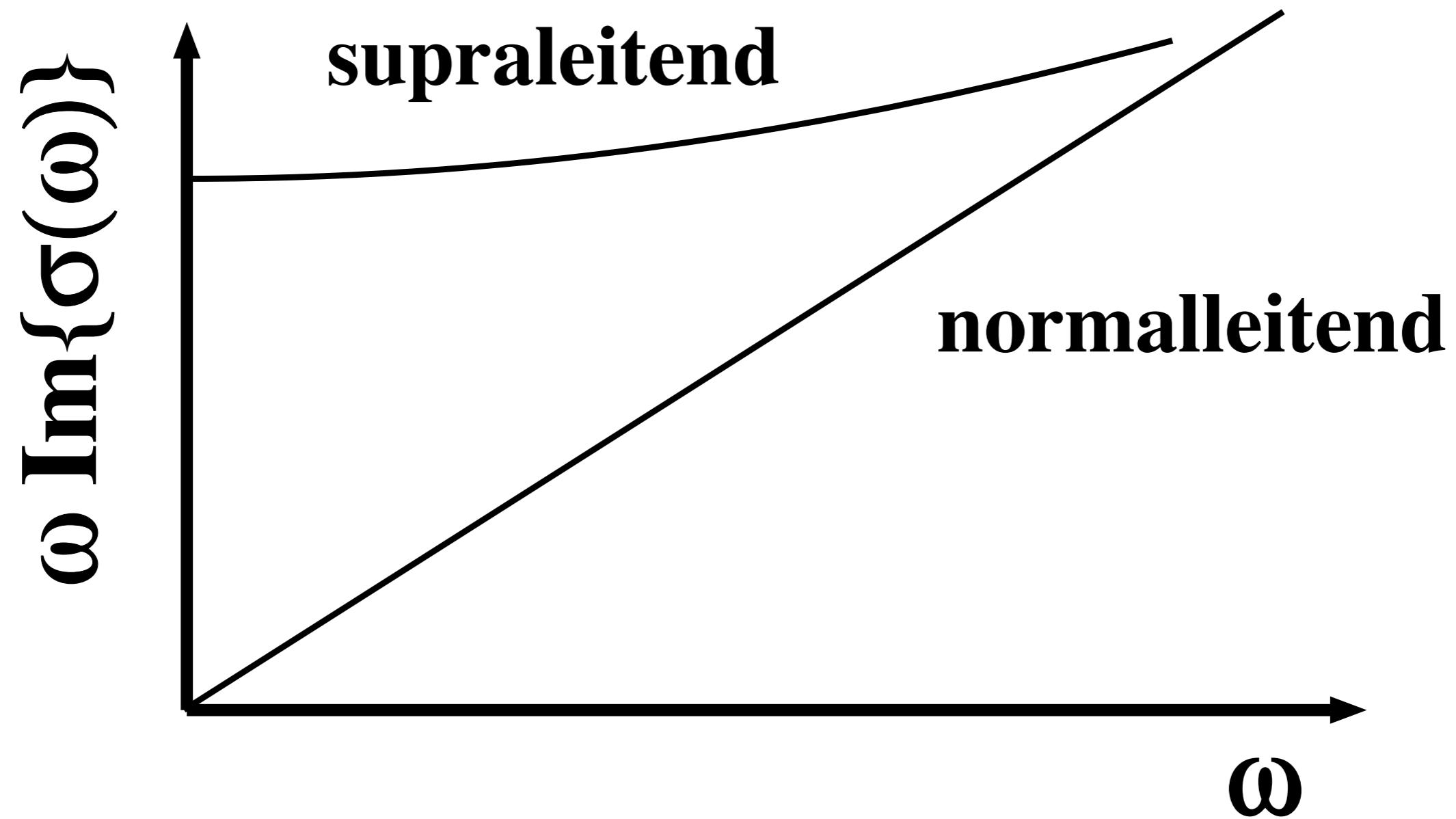


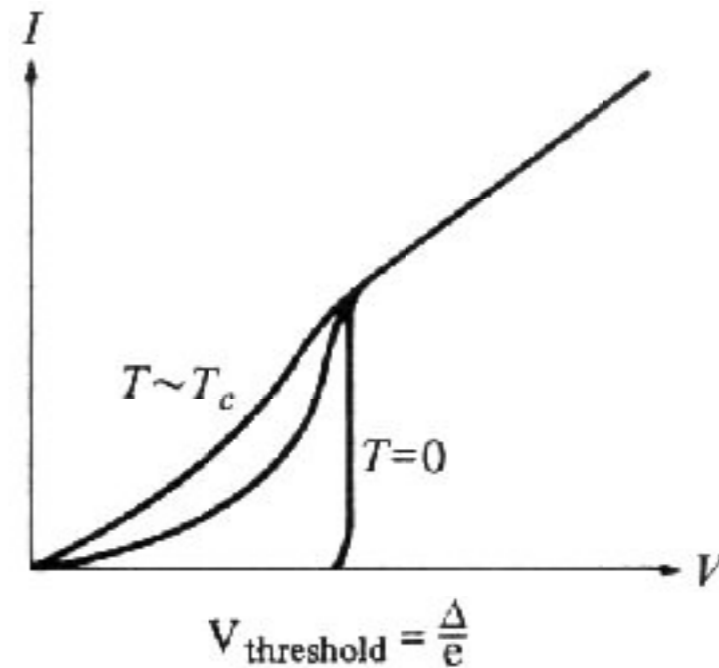
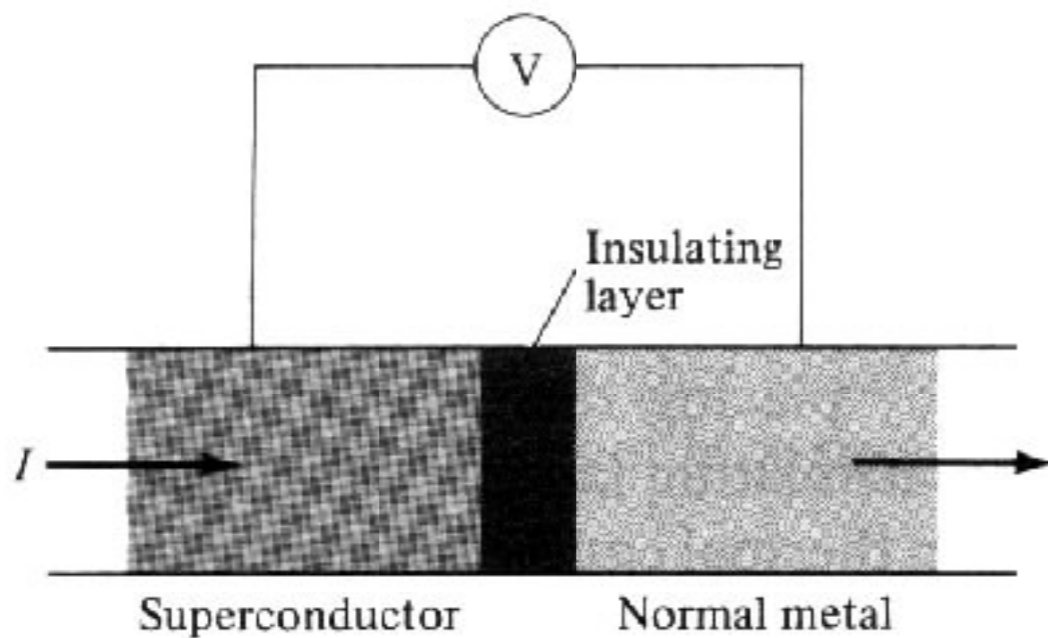
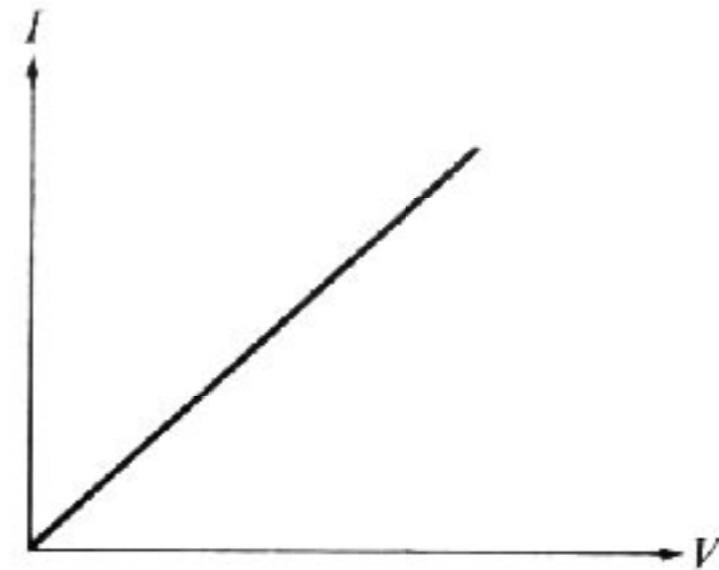
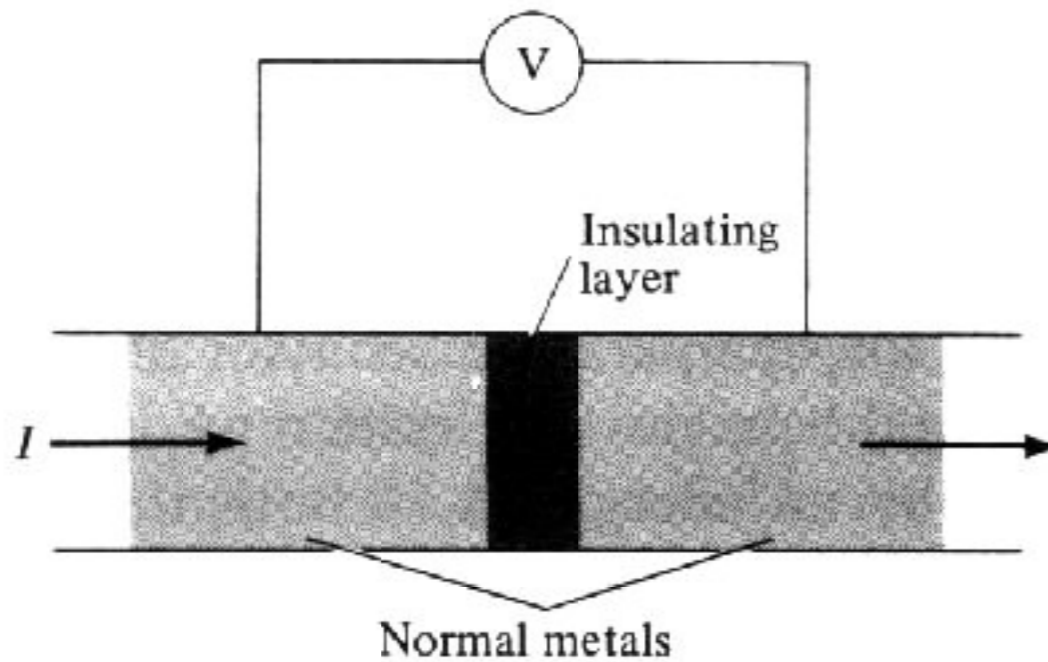
Supraleitende Kabel



Dispersion der Leitfähigkeit

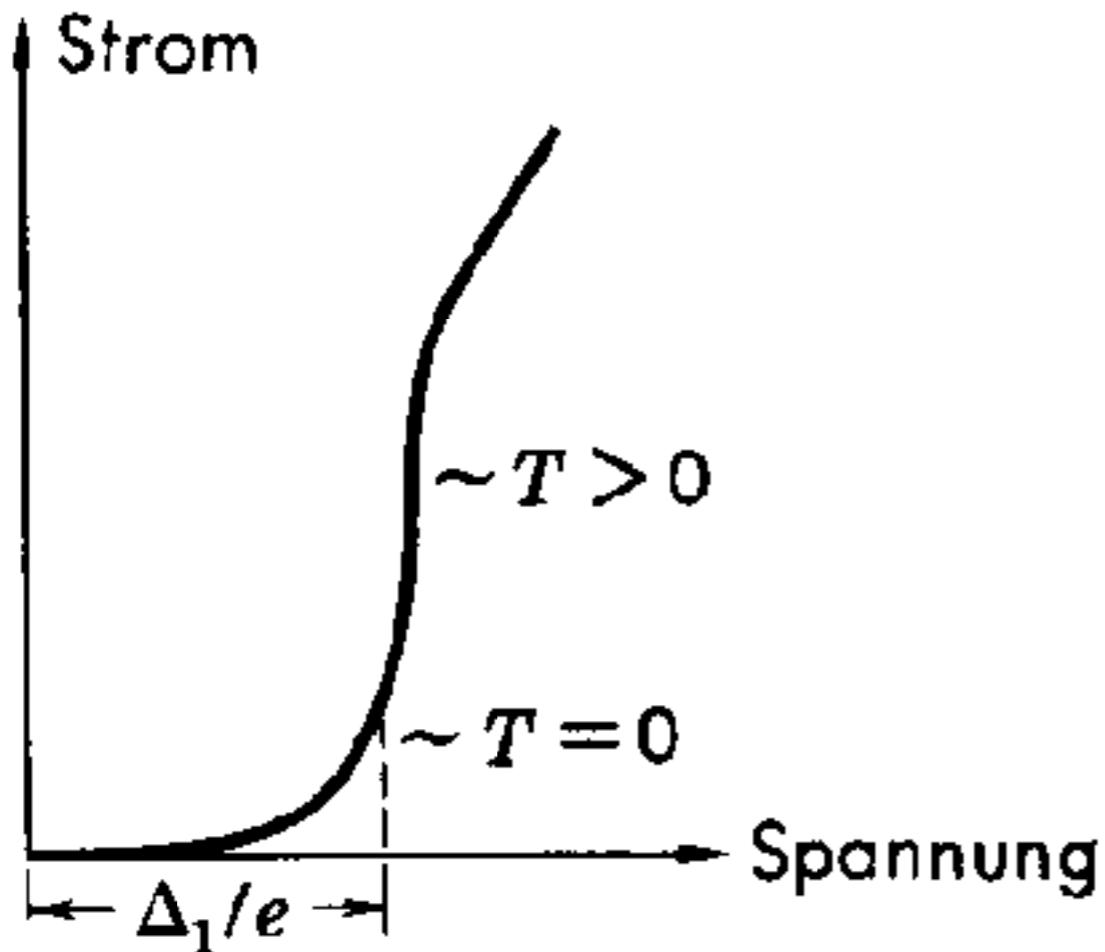
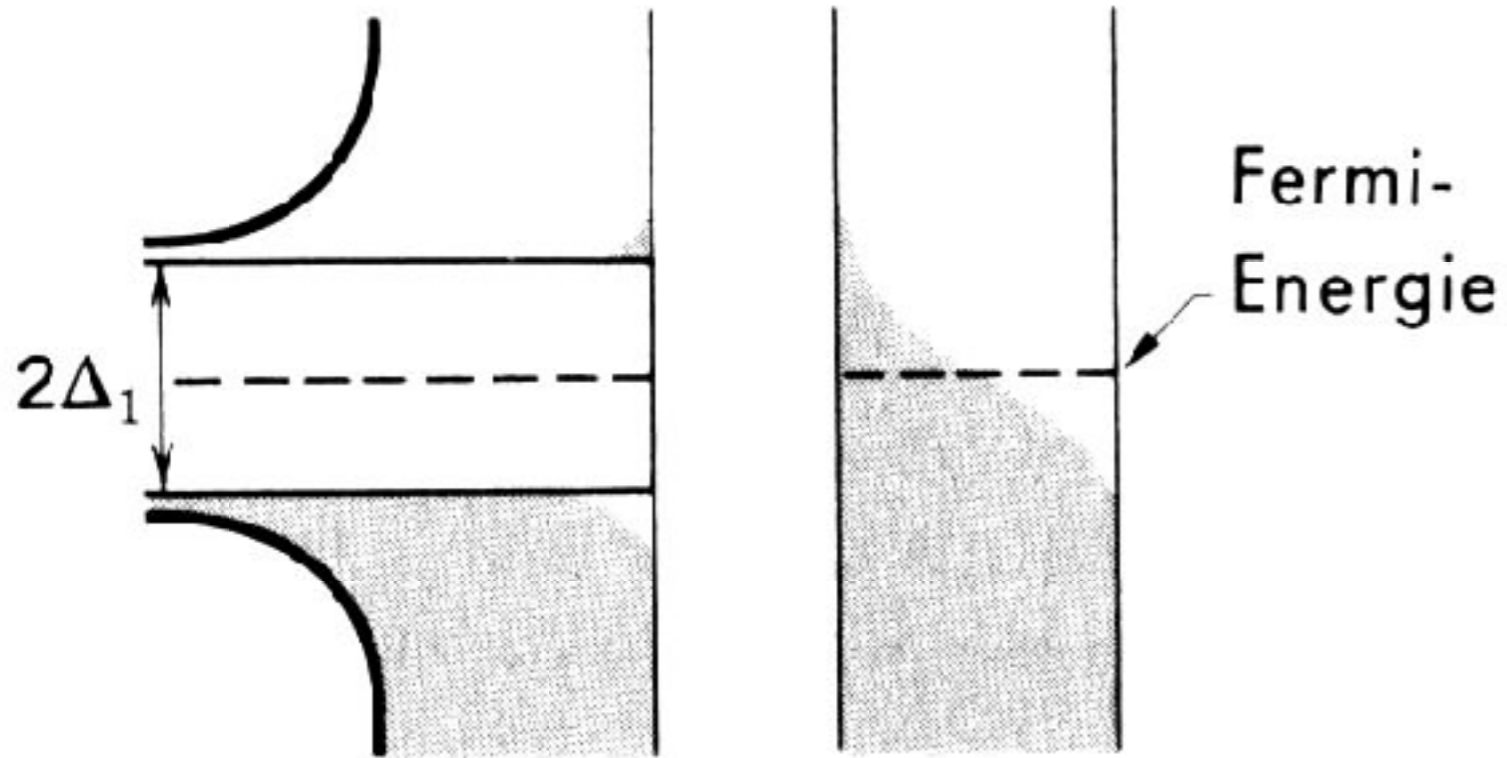


Tunnelkontakte



z.B. STM Spitze auf SL

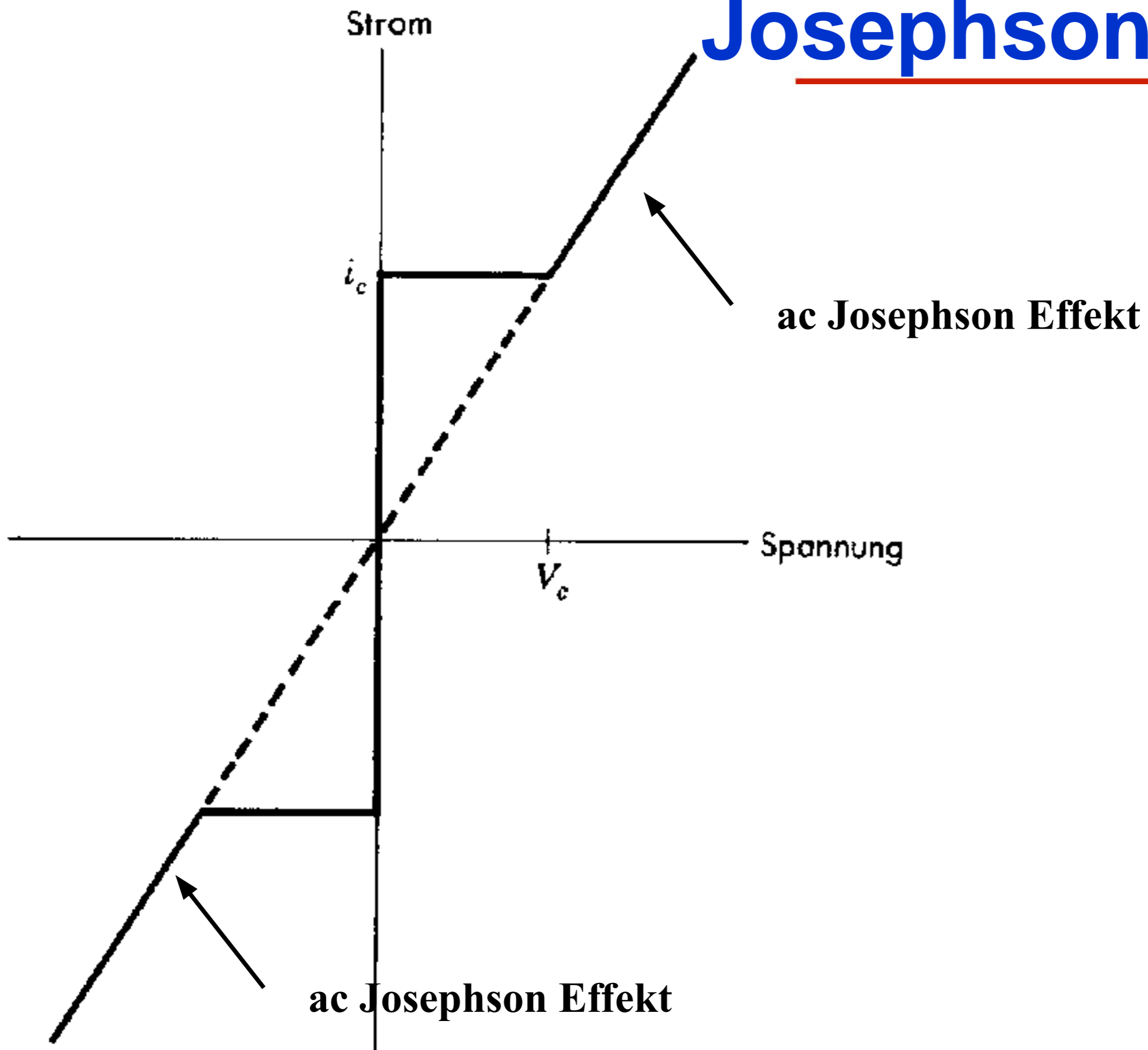
Tunnelstrom



Bewegungschema mit Zustandsdichte und Strom-Spannungs-Charakteristik für eine Grenzschicht mit Tunnelkontakt. In y -Richtung ist in senkrechter Richtung die Energie, in x -Richtung die Zustandsdichte aufgetragen. Ein Metall ist supraleitend, das andere normalleitend. Die Strom-Spannungs-Charakteristik; bei $T = 0$ erwartet man bei der gestrichelten Linie einen steilen Stromanstieg. [Nach Lüscher und Megerle].

C. Kittel, 'Einführung in die Festkörperphysik', R. Oldenbourg, München

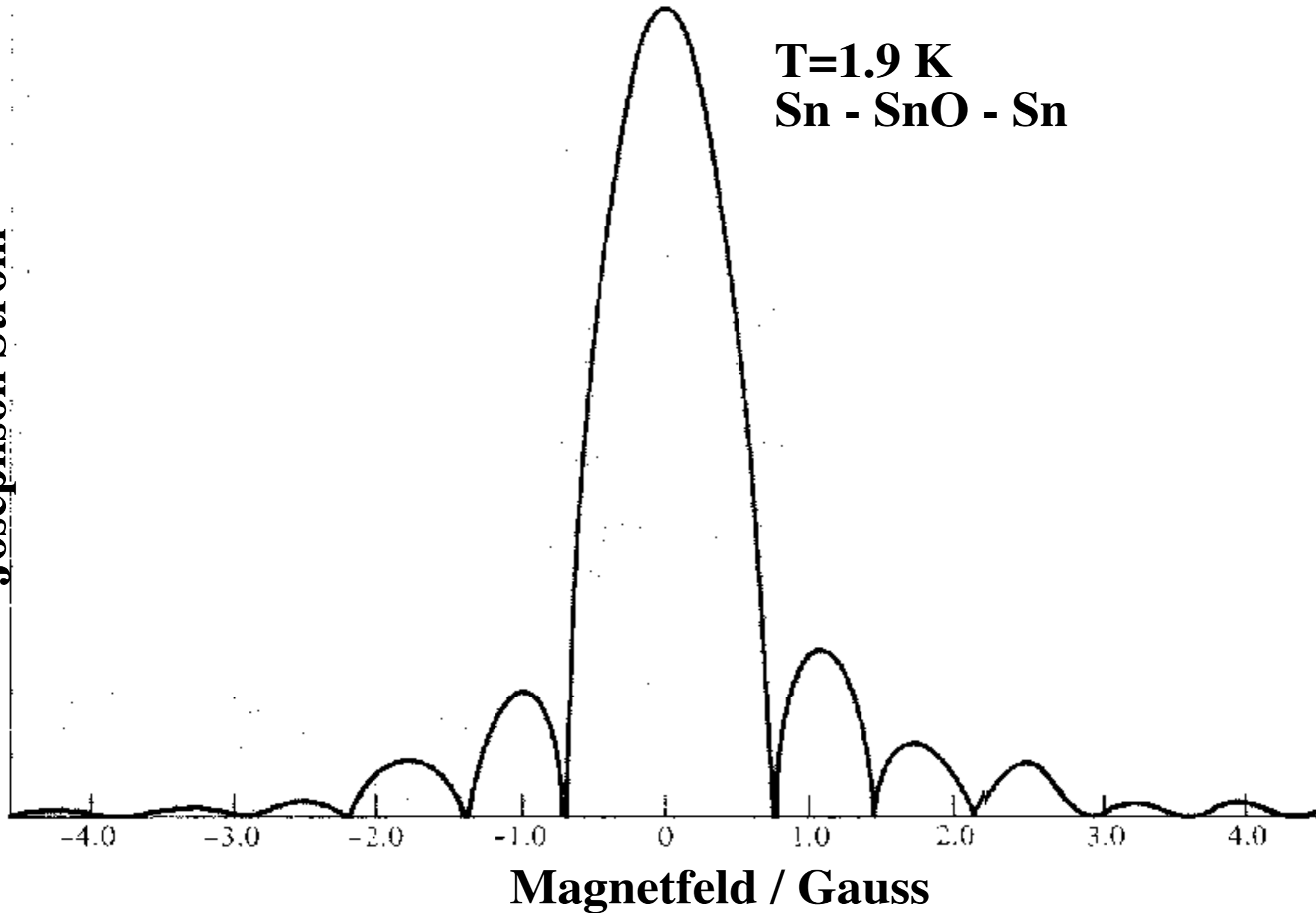
Josephson-Effekt



Josephson Strom

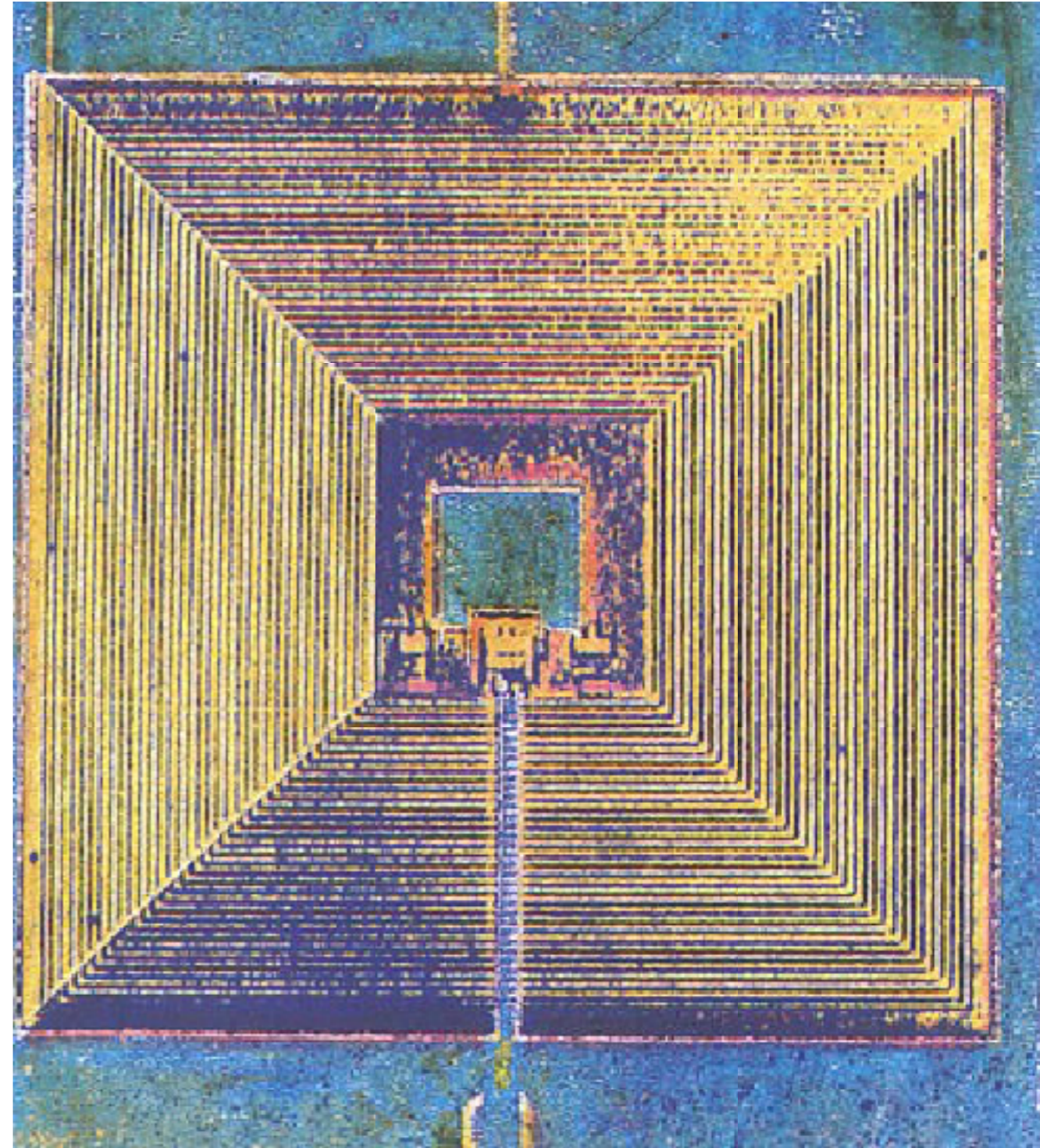
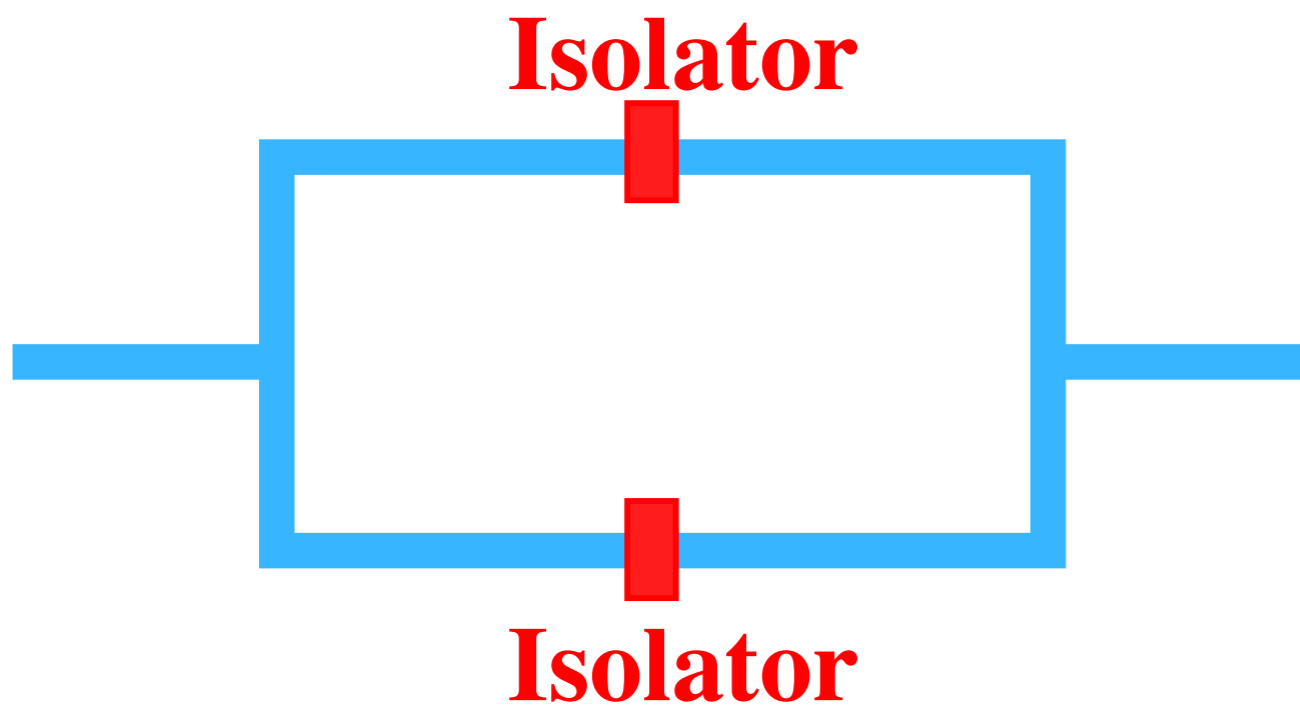
T=1.9 K
Sn - SnO - Sn

Josephson Strom

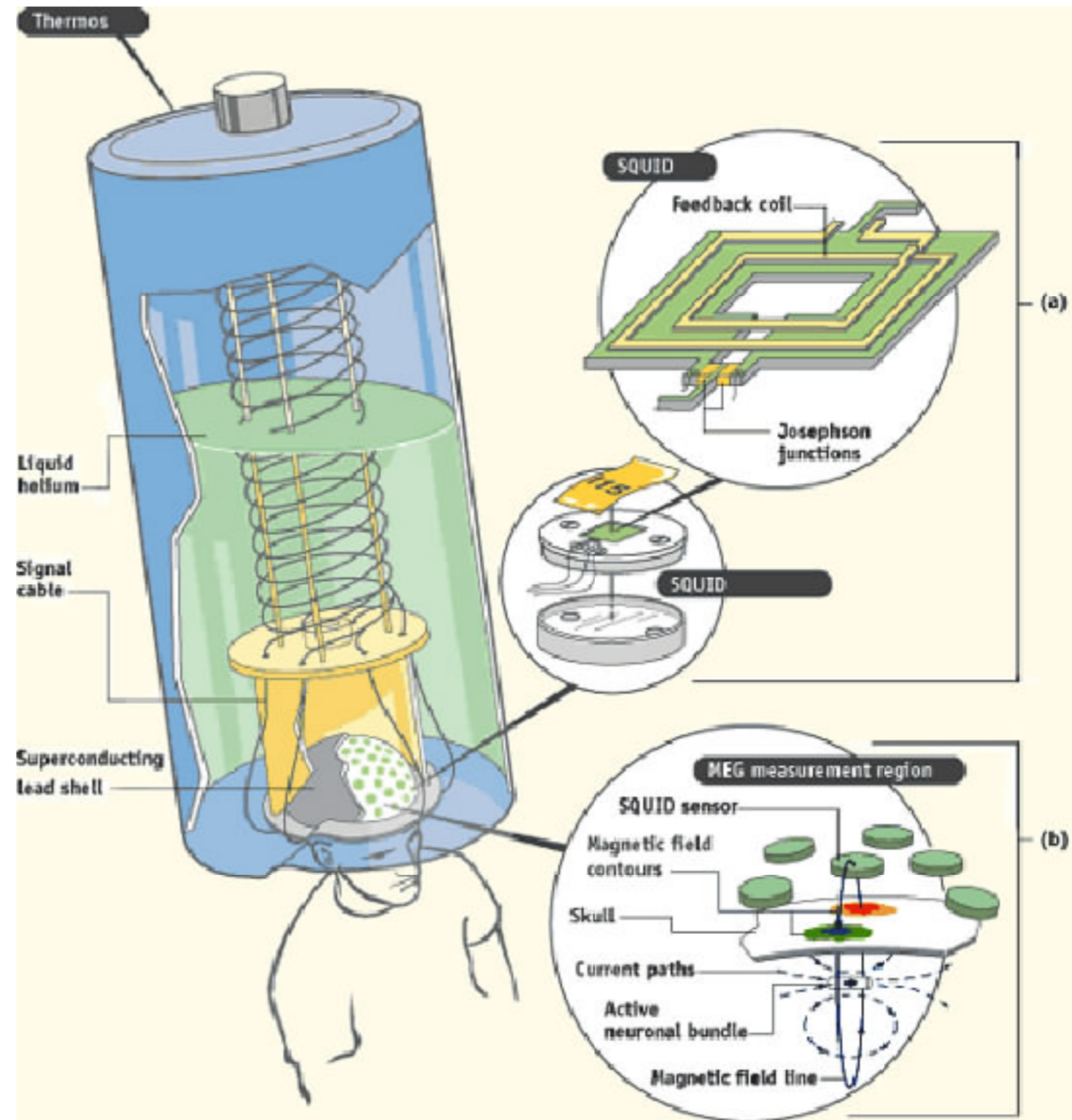
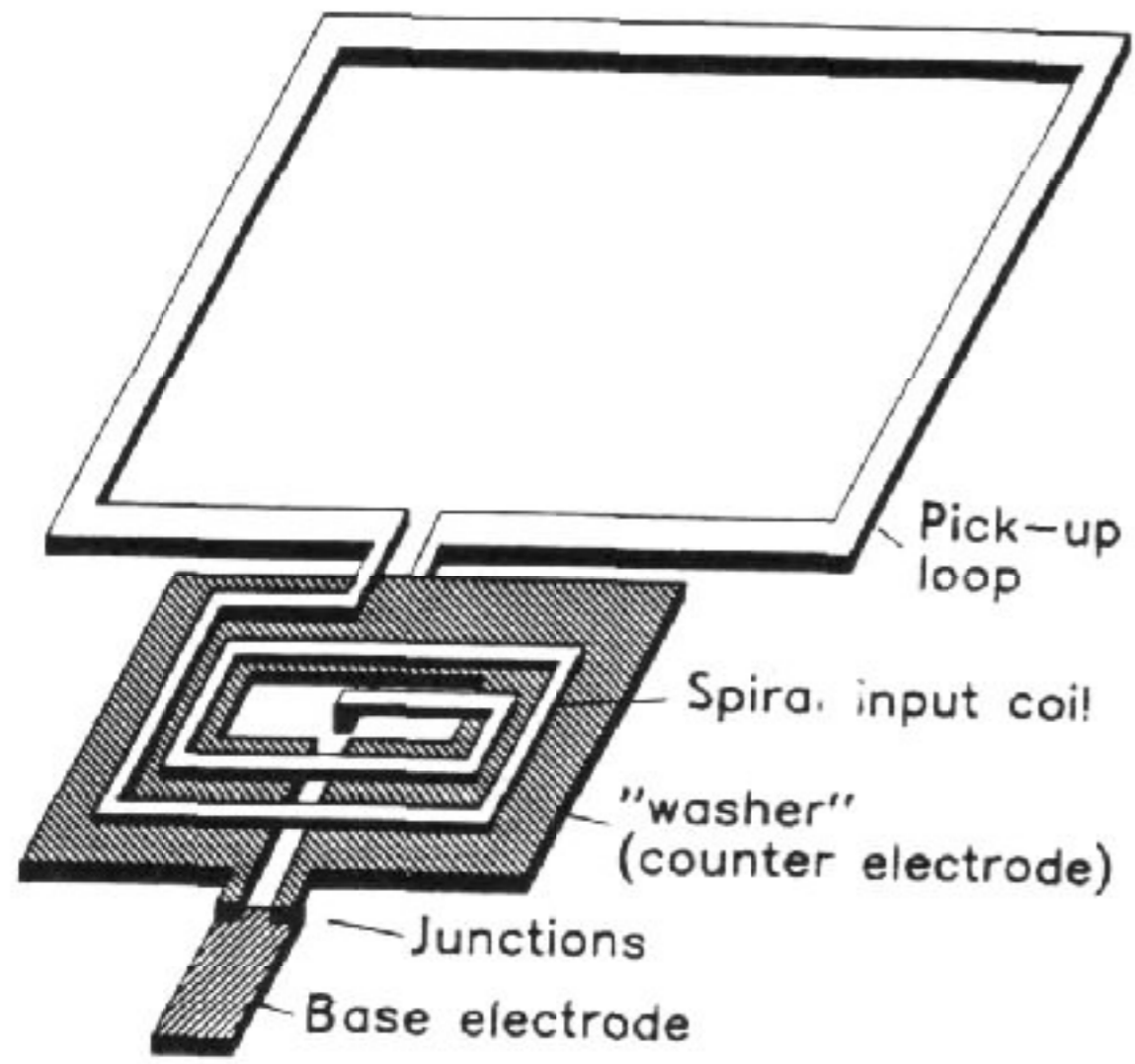


N.W. Ashcroft and N.D. Mermin, 'Solid state physics', Holt, Rinehart and Winston, New York (1976).

SQUID



SQUID



$$I = 2 I_0 \sin \delta_0 \cos(e\phi/\hbar)$$

