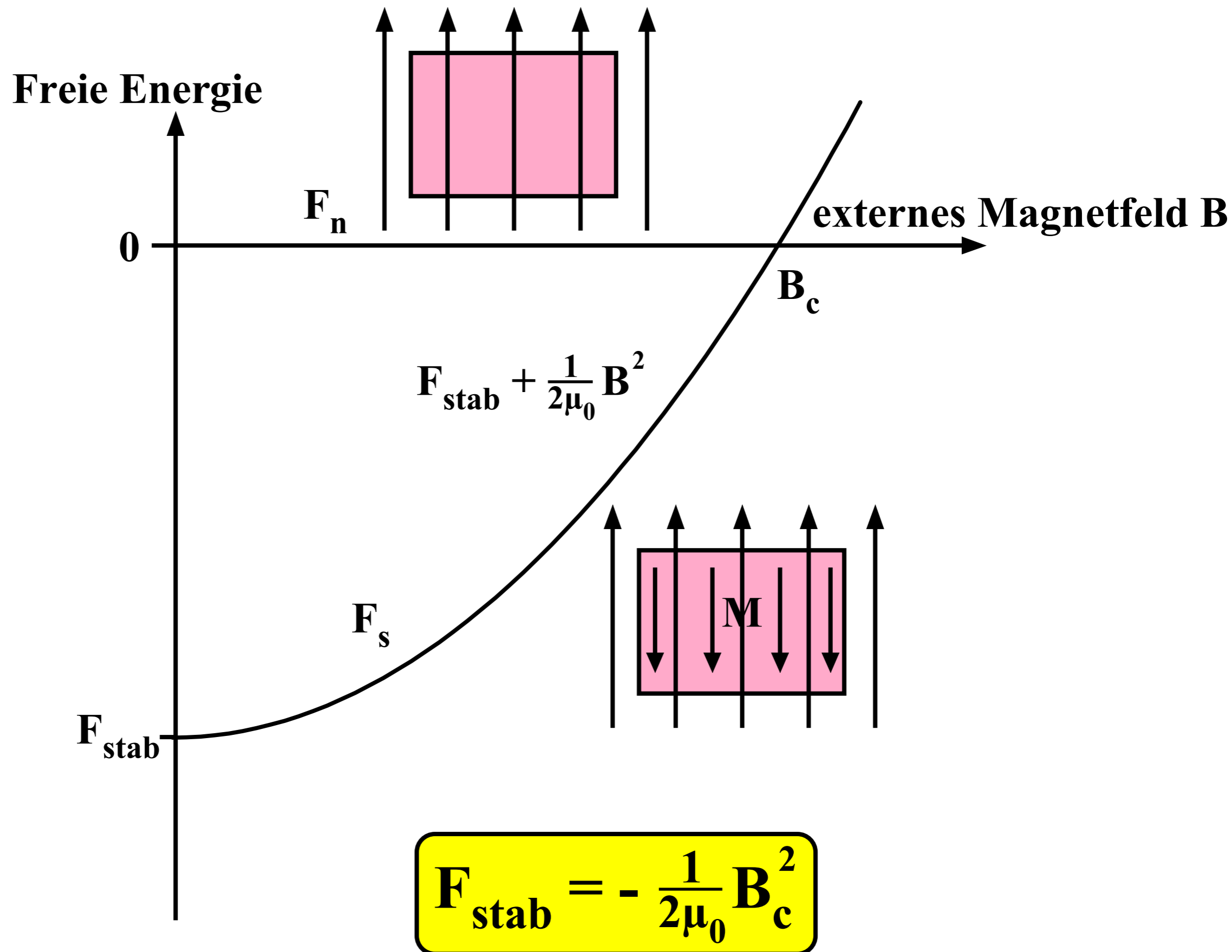
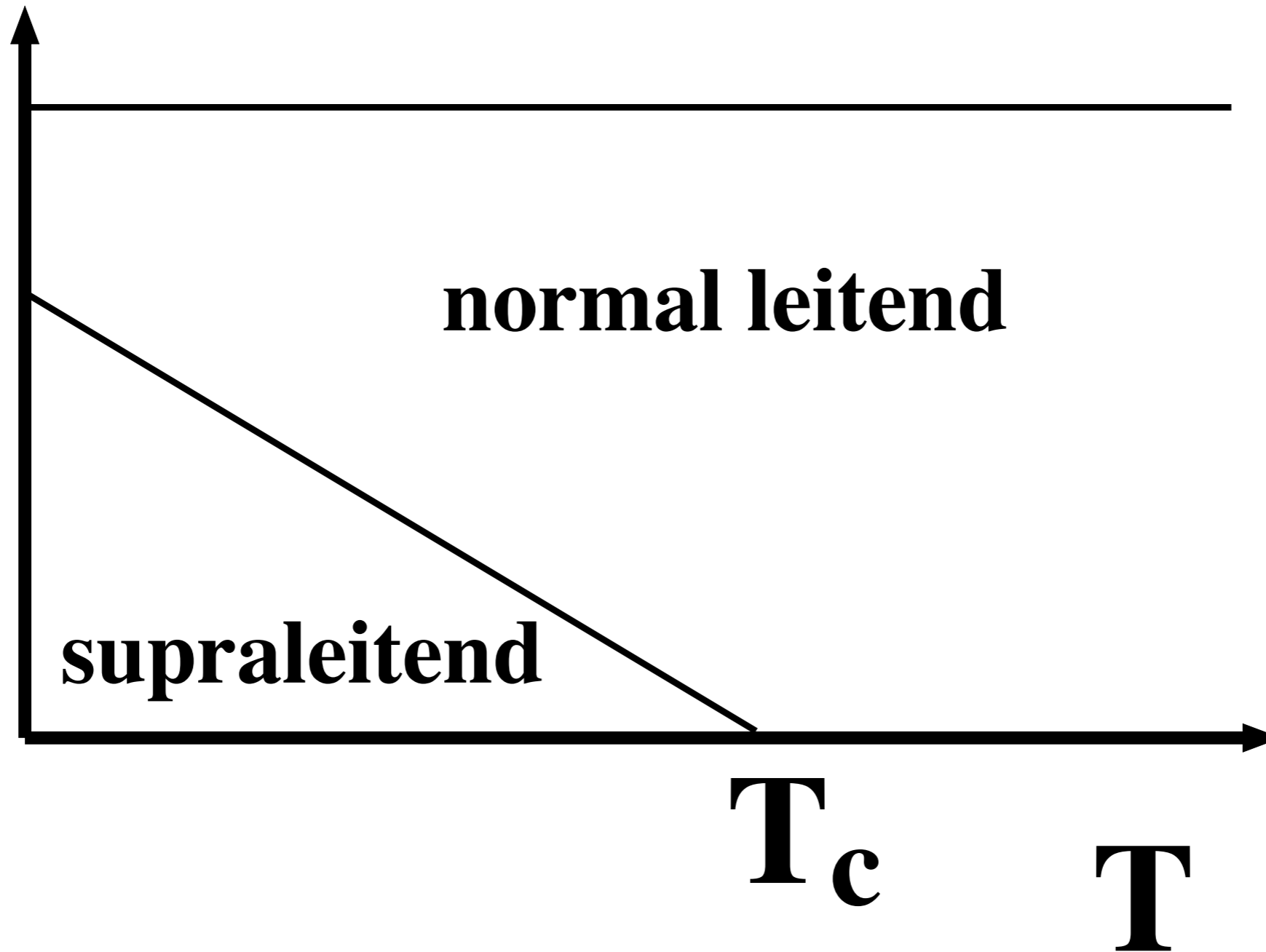


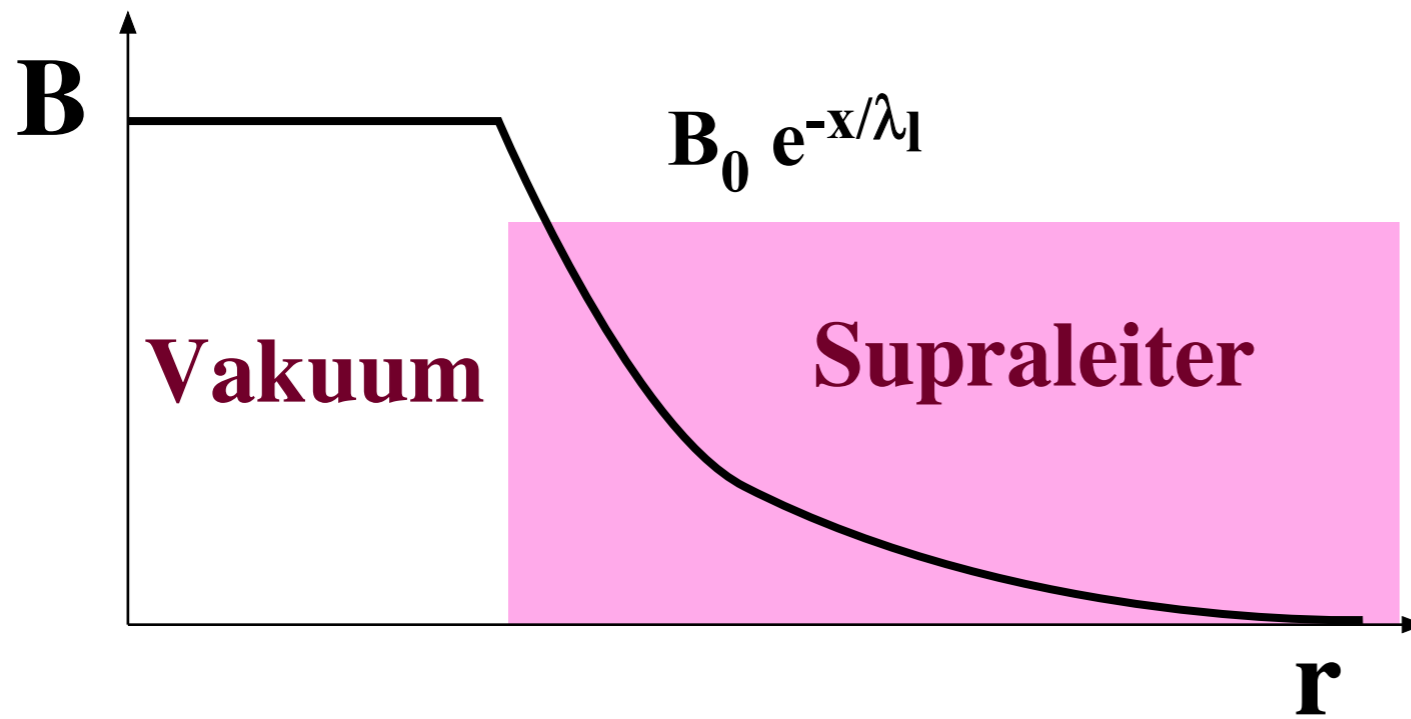
Stabilisierungsenergie



Zwei "Flüssigkeiten"



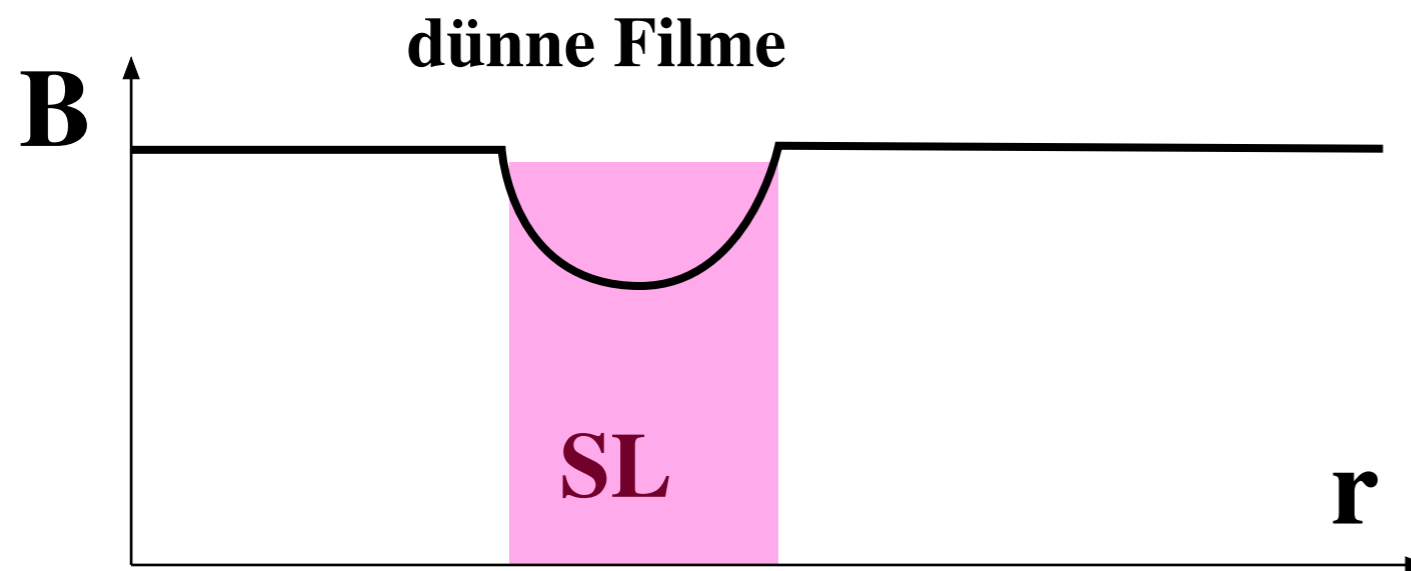
Eindringtiefe



BCS Theorie:

$$\lambda_L^2 = \varepsilon_0 m c^2 / n q^2$$

n : Teilchendichte

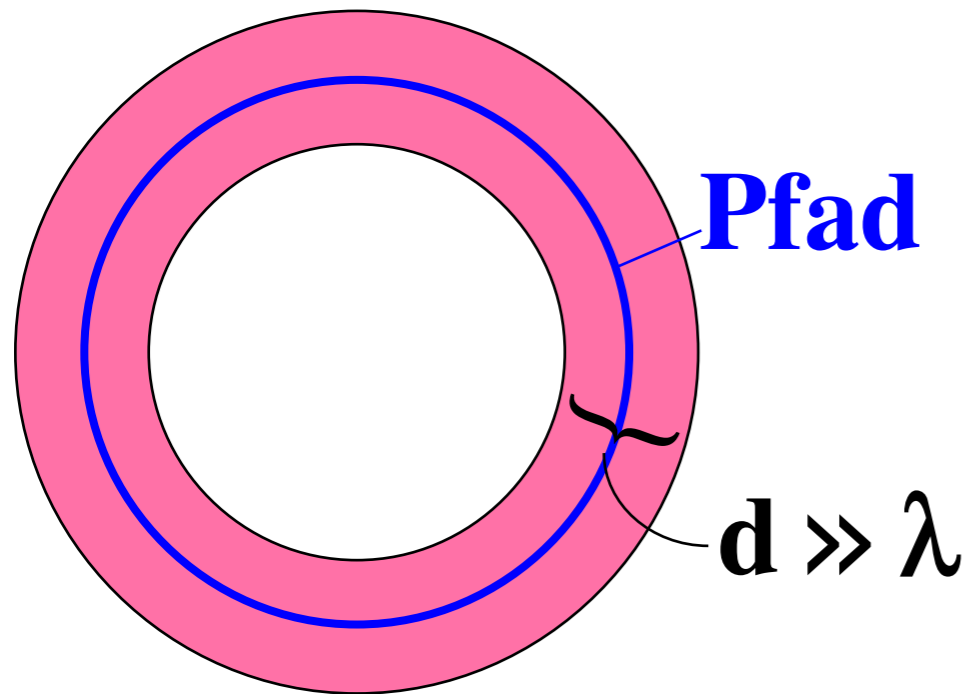


kritisches Feld erhöht !

Metall	Intrinsische Pippardsche Kohärenzlänge ξ_0 , in 10^{-6} cm	Londonsche Eindringtiefe λ_L , in 10^{-6} cm	$\frac{\lambda_L}{\xi_0}$
Sn	23,	3,4	0,16
Al	160,	1,6	0,010
Pb	8,3	3,7	0,45
Cd	76,	11,0	0,14
Nb	3,8	3,9	1,02

Flussquanten

supraleitender Ring



$$\int \mathbf{j} \, d\mathcal{l} = 0 \quad \text{im SL}$$

$$\int \{ 2e^2 \mathbf{A} + e\hbar \nabla \phi \} \, d\mathcal{l} = 0$$

$$\Phi_0 = h/2e = 2.0679 \cdot 10^{-15} \text{ Tm}^2$$

Experimentelle
Beobachtung in
 $\text{Pb}_{98}\text{In}_2$;
 $B_0 = 80 \text{ G}$

