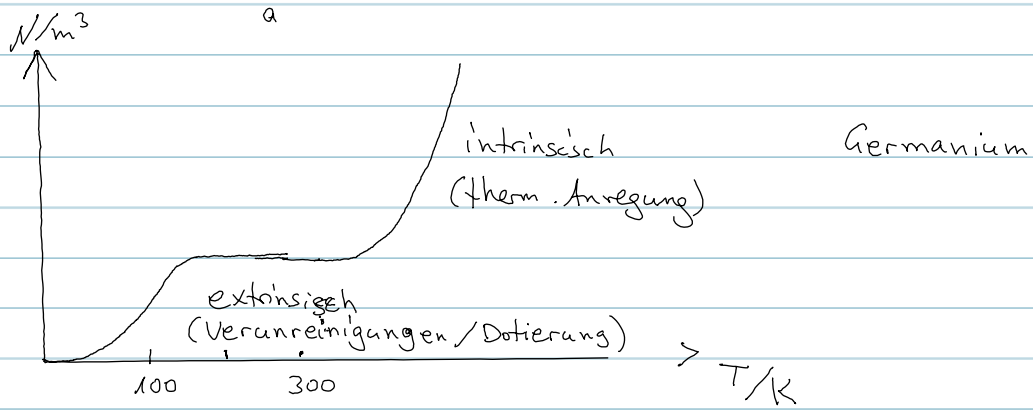
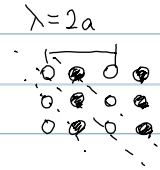
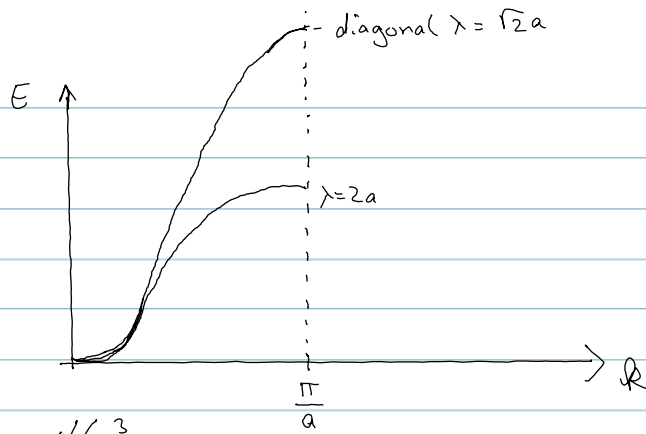
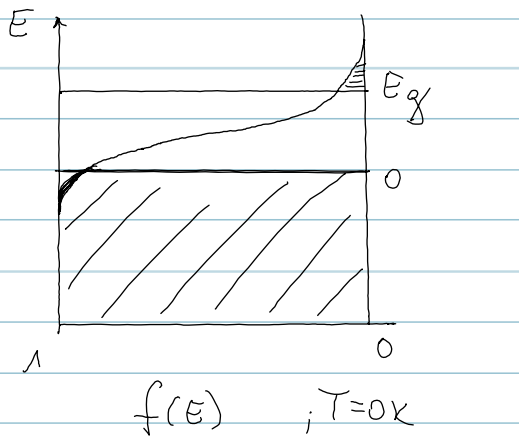


27.6.14



Eg 2.

via $\sigma(T)$



$$\sigma = N_e e \mu_e + N_h e \mu_h$$

$$N_e = \int_{E_g}^{\infty} f(E) D(E) dE$$

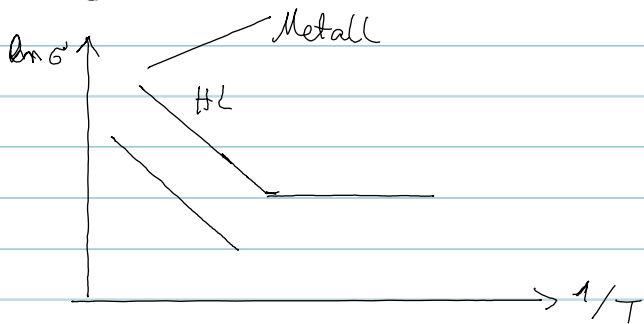
↑
Tabhängig

$$f(E) = \frac{1}{e^{(E-E_F)/kT} + 1}$$

$$\sigma \propto \frac{1}{e^{(E_g - E_F)/kT} + 1} \quad E_F = \frac{1}{2} E_g$$

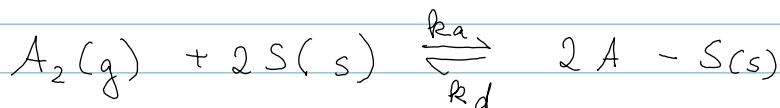
$$\sigma \propto e^{-E_g/2kT}$$

$$\ln \sigma \propto -E_g/2kT$$



Dissoziation (Dissoziative Adsorption)

↳ Langmuir



$$v_a = k_a [A_2] (1-\Theta)^2 \sigma_0^2$$

$$v_d = k_d \Theta^2 \sigma_0^2$$

Θ = Bedeckungsgrad

Gleichgewicht: $v_a = v_d$

$$k_a [A_2] (1-\Theta)^2 = k_d \Theta^2$$

$$\hookrightarrow \Theta = \dots$$

$$k_c = \frac{k_a}{k_d} = \frac{[A-S]^2}{[A_2][S]^2}$$

Gleichgw. Konst.