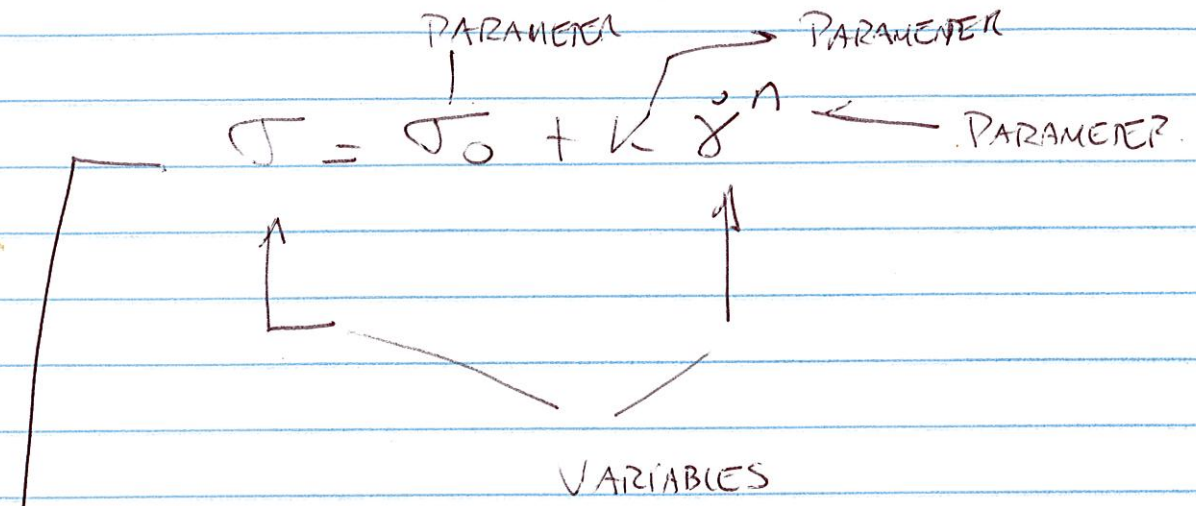


τ_0 CAN BE MEASURED (see previous slide)

or extrapolated [BUT IT is KNOWN]

We need to estimate K and n

Let's use logaritmic function

$$\log \tau = \log(\tau_0 + K\dot{\gamma}^n) \neq$$

$$\log \tau_0 + \log(K\dot{\gamma}^n)$$

$$\tau - \tau_0 = K\dot{\gamma}^n$$

$$\log(\tau - \tau_0) = \log(K\dot{\gamma}^n) = \log K + n \log \dot{\gamma}$$

Brownian Motion

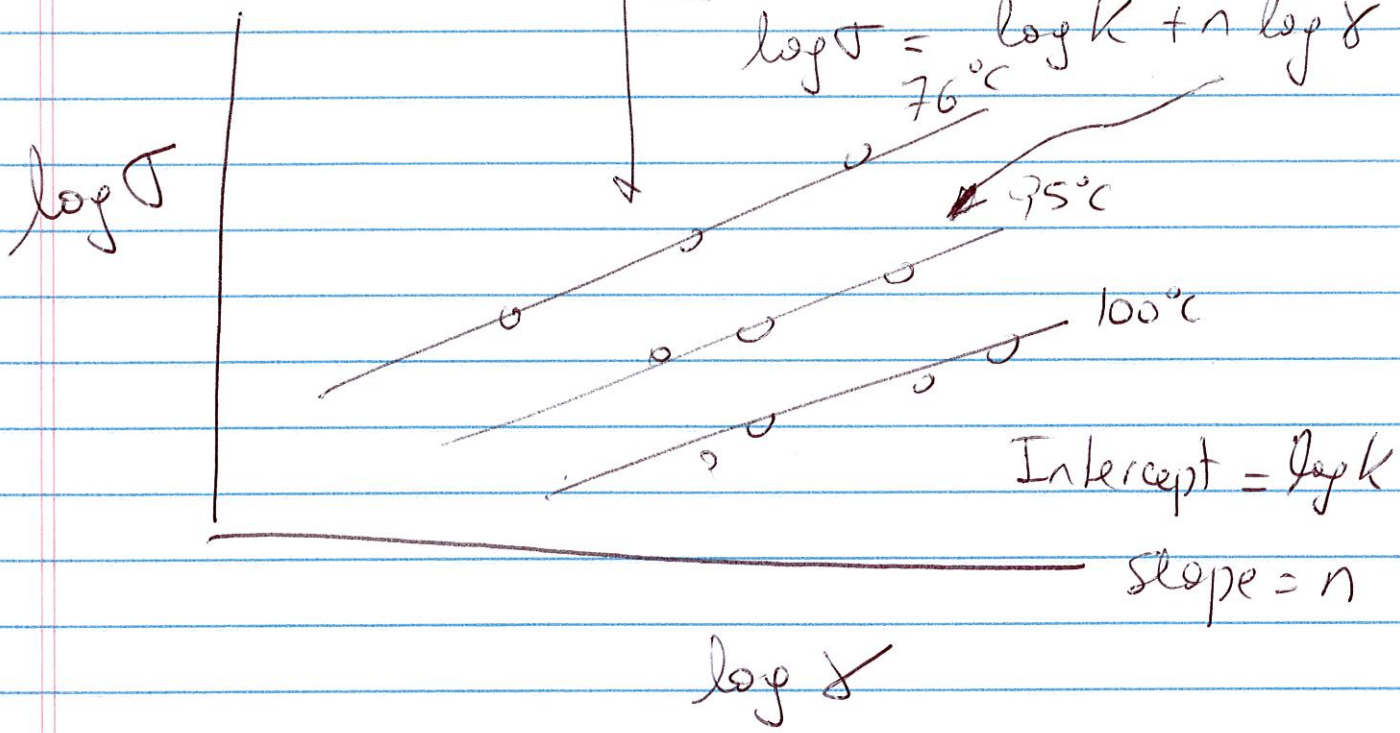
$E_B = K_B T$

- T: Absolute temperature
- K_B: Boltzman constant

SLIDE 43

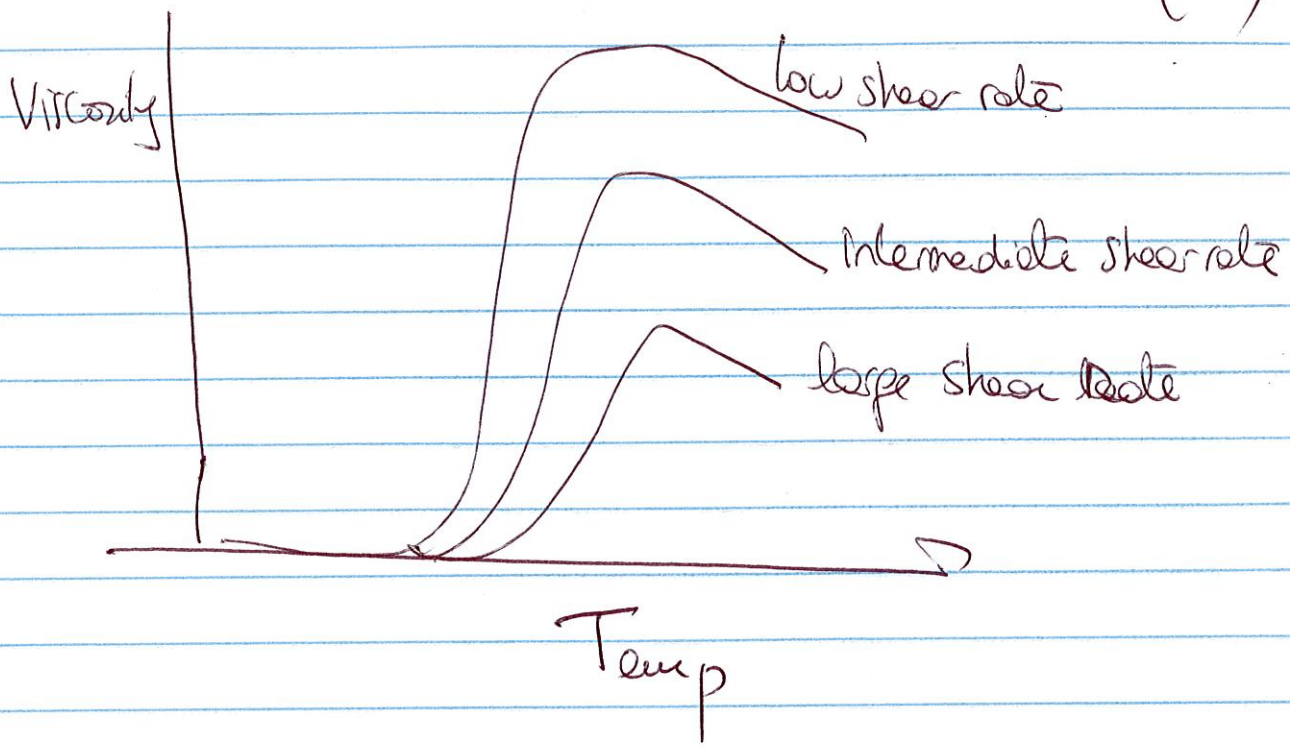
$\sigma = K \dot{\gamma}^n$

$\log \sigma = \log K + n \log \dot{\gamma}$



How do we calculate K & n from the plotted data?

Take


Viscosity
low shear rate
Intermediate shear rate
large shear rate
Temp