$$\text{energie} \quad E = h\nu$$

$$\text{impuls} \quad p = \frac{h}{\lambda}$$

$$\text{onzekerheid} \quad \Delta p \, \Delta x = h$$

$$\text{energie} \quad E = \frac{A}{x} = \frac{1}{2} \, mv^2$$

$$\text{impuls} \quad p = mv$$

$$\frac{A}{x} = \frac{1}{2m} p^2 = \frac{h^2}{2m} \, \frac{1}{\lambda^2}$$

$$\frac{\lambda^2}{x} = \frac{h^2}{2mA}$$

$$px \approx h \quad \rightarrow \quad \frac{h}{\lambda} \, x \approx h \quad \rightarrow \quad x \approx \lambda$$

$$\text{Bohr Radius} \quad x = \frac{h^2}{2mA}$$

$$\text{energie} \quad E = \frac{1}{2}\, mv^2$$

$$v = w + u \quad \rightarrow \quad E = \frac{1}{2}w^2 + wu + \frac{1}{2}u^2 = E_w + 0 + E_T$$

$$\text{thermische energie} \quad E_T = \frac{3}{2}\, kT$$

$$\text{chemische energie} \quad E = \frac{A}{x} = \frac{2mA^2}{h^2}$$

$$E = \frac{2mA^2}{h^2} = \frac{3}{2}\, kT$$

$$T = \frac{4mA^2}{3kh^2}$$