

MULTZO KANONIKOA

11

Gas idela, gainerako multzo mekaniko-kuantikoetan

K

$$Q_N(V, T) = \sum_E e^{-\beta E} \quad \text{MULTZO}$$

$$E = \sum_{\epsilon} n_{\epsilon} \epsilon \quad \text{PARTIKULA BAKARRA}$$

$$\sum_{\epsilon} n_{\epsilon} = N$$

$$Q_N(V, T) = \sum_{\{n_{\epsilon}\}} g\{n_{\epsilon}\} e^{-\beta \sum_{\epsilon} n_{\epsilon} \epsilon} \quad \text{batasunak}$$

STATISTICAL WEIGHT FACTOR

$$g_{BE}\{n_{\epsilon}\} = 1$$

$$g_{FD}\{n_{\epsilon}\} = \begin{cases} 1 \\ 0 \end{cases}$$

$$g_{MB}\{n_{\epsilon}\} = \prod_{\epsilon} \frac{1}{n_{\epsilon}!}$$

- partikula notaren arabera (izatearen)
- zer banaketa hantzu behar den kopia

$n_{\epsilon} = 0, 1$ denak
bata edo ezin kopiatu

AURREKO ADIERAZPENETAN $g_i = 1$!!

EZ DITUGU ENERGIA-MAILAK TALDEKATU