Correction: Temperature-dependent energy levels and size-independent thermodynamics

Rodrigo de Miguel


On page 15692, the paragraph leading up to eqn (13) and eqn (13) itself should be amended as follows:

If there is only enough energy for one of the \( N \) particles to be in the upper level, then the system will have multiplicity \( N \).

By enforcing the condition that when \( n = 1 \) the temperature must be equal to \( \varepsilon(k_B \ln N) \), we obtain \( (d\varepsilon/dT) = k_B(1 + \ln N - H[N - 1]) \), and the energy \( \varepsilon \) finally results in

\[
\varepsilon = (1 + \ln N - H[N - 1] + n(H[N - n] - H[n]))k_BT. \quad (13)
\]

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.