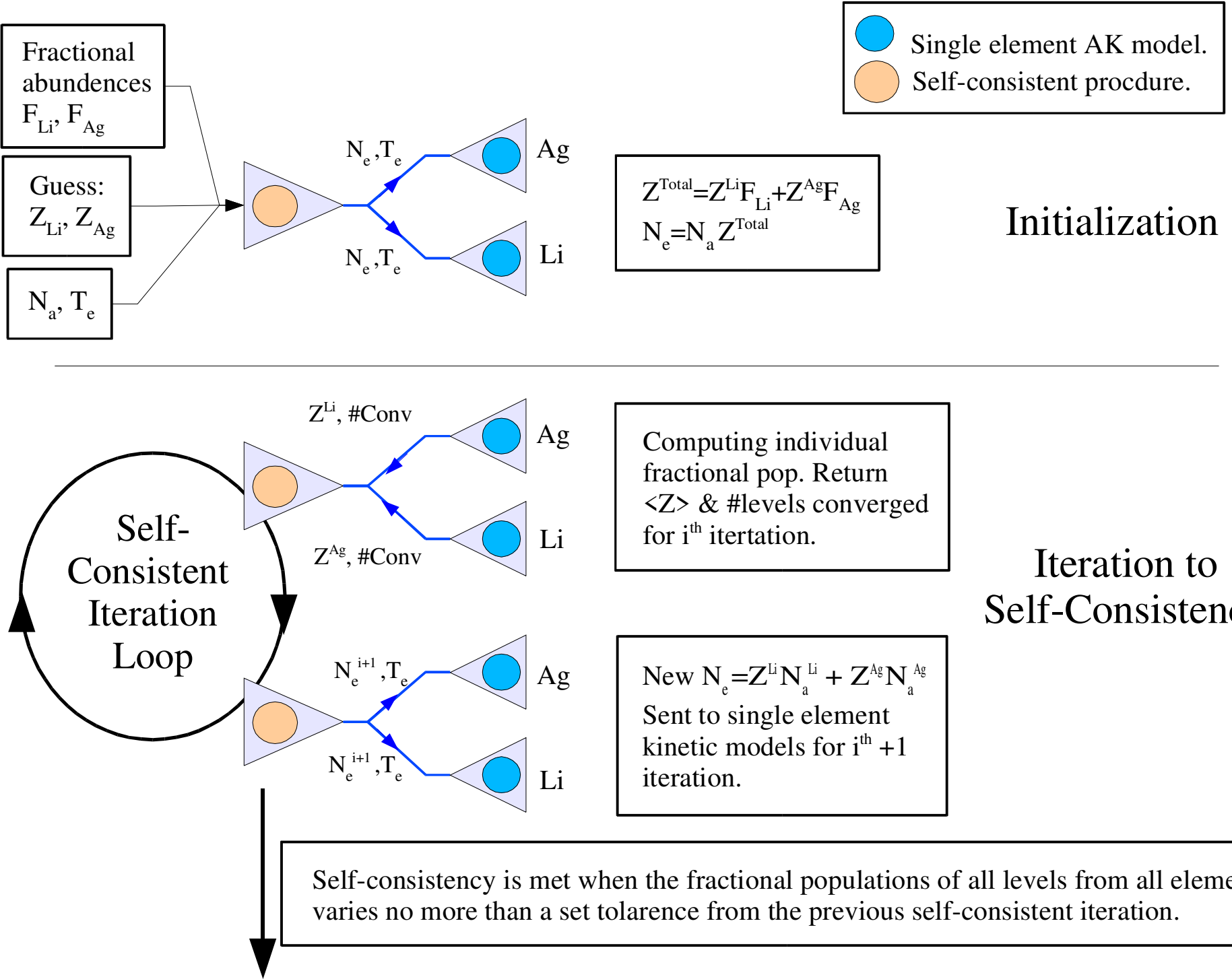
Single element AK model.
Self-consistent procdure.
Fractional abundences F_{Li}, F_{Ag}
Guess: Z_{Li}, Z_{Ag}
N_a, T_e
N_e,T_e
Ag
N_e,T_e
Li
$Z^{Total}=Z^{Li}F_{Li}+Z^{Ag}F_{Ag}$
$N_e=N_a Z^{Total}$
Initialization
Z^{Li}, #Conv
Ag
Z^{Ag}, #Conv
Li
Computing individual fractional pop. Return <Z> & #levels converged for i^{th} itertation.
Self-Consistent Iteration Loop
N_e^{i+1},T_e
Ag
N_e^{i+1},T_e
Li
New $N_e=Z^{Li}N_a^{Li}+Z^{Ag}N_a^{Ag}$
Sent to single element kinetic models for i^{th} +1 iteration.
Iteration to Self-Consistency
Self-consistency is met when the fractional populations of all levels from all elements varies no more than a set tolarence from the previous self-consistent iteration.