The parameters are an ID of ion, ion column density (N_ion, $[10^{18}$ cm$^{-2}]$), an effective temperature for the Doppler broadening kT_{eff} [keV], and redshift z. The ion ID is written as (atomic number)+(the number of electrons). For example, Fe XXVI is 2601, that of Fe XXV is 2602 and that of Ni XXVII is 2802. The effective temperature kT_{eff} is written as the $2kT_{\text{eff}}/m_{\text{atom}} = 2kT/m_{\text{atom}} + v_{\text{turb}}^2$, where T is the real temperature of the gas and v_{turb} is the microscopic turbulent velocity of the gas. Thus, the Doppler broadening is calculated as $\Delta E_D/E = \sqrt{2kT_{\text{eff}}/m_{\text{atom}}}/c$. If kT_{eff} is much higher than the temperature you think, then the microscopic turbulence must be very large. If you use the negative value for this parameter, it returns $\Delta v_{\text{D}}/c = \Delta E_D/E$ directly.

When you use it, please set the environmental variable "IONABS_DATA_PATH" to the directory of data_ionabs your .zshrc, such as

"export IONABS_DATA_PATH=/path/to/the/data_ionabs"