

23. COMPOSITION CONVERSIONS

The Composition Conversion module is a simplified version of the Mineralogy iteration module. It is included in HSC Chemistry because the Composition Conversion module easily gives the compositions and amounts of the species in wt-% and kg units.

The user may type the names of the species into the first column and the compositions into the second column. You can use also other species than those in the HSC database, however, you must use HSC formula syntax. The module automatically calculates the elemental compositions of the species and the total composition of the mixture by pressing **Convert to Elements**. The reverse conversion is made by pressing **Convert to Species**.

The Composition Conversion is made using the same program routines, which are used in the Mineralogy routine. Therefore the limitations are also the same.

An example is shown in Fig. 1. The same results can be obtained with the Mineralogy module, see Fig.1. in Chapter 22. *Mineralogy Iterations*.

SUBSTANCE	Total wt-%	Ca wt-%	Cl wt-%	Cu wt-%	Na wt-%	O wt-%	S wt-%	Zn wt-%	Total wt-%
	100.00	5.42	9.58	23.96	16.19	23.51	17.33	4.02	100.00
SPECIES	Total 100.00	Ca wt-%	Cl wt-%	Cu wt-%	Na wt-%	O wt-%	S wt-%	Zn wt-%	Total wt-%
Na2SO4	50.00				32.37	45.06	22.57		100.00
Cu2S	30.00			79.86			20.14		100.00
ZnO	5.00					19.66		80.34	100.00
CaCl2	15.00	36.11	63.89						100.00

Fig. 1. Composition conversions.

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