

## Supplementary Read-Me File: Instructions for Supplementary Table 2

### **An evolutionary system of mineralogy, Part VIII: The evolution of the metamorphic minerals**

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Supplementary Table 2 is an xlsx file that documents our efforts to condense 1218 minerals, including 1215 approved IMA-CNMNC mineral species, that form as metamorphic minerals into fewer mineral natural kinds (Supplementary Table 1) by lumping groups of two or more species that represent continuous chemical solid solutions and that form in the same paragenetic environments.

Here we list only instances where two or more IMA species are lumped into a single root mineral kind. Column A (rows 2 through 653) lists 652 IMA species that are subject to lumping into 187 root mineral kinds. Column C gives the chemical formula of the IMA-approved species.

Column B lists the resulting names of 187 root mineral kinds, whose names are italicized to distinguish them from IMA-approved species. For example, in Rows 2 and 3 we lump the two IMA-approved species, actinolite and ferro-actinolite, into one natural kind, *actinolite*. Similarly, in Rows 9 through 13, five species of the allanite group are lumped into *allanite*. In 26 instances highlighted in blue, we adopt the IMA-approved root name without suffix as the root mineral name for groups of two or more closely-related species; thus, *chabazite* is the root mineral name for the four species chabazite-Ca, chabazite-K, chabazite-Mg, and chabazite-Na. In 18 instances highlighted in yellow (*androsite*, *apophyllite*, *biotite*, *chlorite*, *ellestadite*, *hogbomite*, *hornblende*, *kspars*, *leakeite*, *melilite*, *orthoestatite*, *Os-Ru alloy*, *Pd-Pt-Rh alloy*, *scapolite*, *serpentine*, *taaffeite*, *tourmaline*, and *wolframite*), we employ an unapproved mineral kind name for a group of closely-related IMA-approved mineral species; thus, *kspars* is the root mineral kind name for microcline and orthoclase, while *tourmaline* is the root mineral kind name for 18 IMA-approved species in the tourmaline group.