

## **Minerals Subcommittee Meeting Minutes**

### **16 March 2011**

1. Call to Order – The Minerals Subcommittee Meeting was called to order at 2:10 p.m. on Wednesday, 16 March 2011.
2. Appointment of Minutes Secretary – S. Quick was appointed secretary.
3. Approval of March 2010 minutes – L. Bernstein moved that the minutes be accepted and S. Misture seconded. Motion carried.
4. Board of Directors' Liaison Report – S. Misture reported that the motion to allocate funds for the Minerals Task Group activity was approved.
5. Report from Minerals Task Group – L. Bernstein reported that the Minerals Task Group edited and submitted 97 new patterns for minerals over the previous year.
6. Compositional modifiers revisited – L. Bernstein reported that ICDD has received a request to switch from using Schaller adjectives for mineral names (e.g., ferrian, ferroan, barian, cuprian) to using IUPAC approved modifiers, which have also been adopted by the IMA (International Mineralogical Association). Discussions at past ICDD meetings led to the conclusion that the "rich" modifier (recommended by IUPAC and IMA) should be avoided because a low concentration of an element in a mineral would be labeled as "rich", and therefore be misleading to users. The Minerals Task Group proposed a motion that specifies mineral name modifiers for use by ICDD. C. Ruud questioned where the modifiers would appear. L. Bernstein responded that they would be part of the mineral name and would appear in that field. S. Kabekkodu asked if the modification process could be automated. L. Bernstein replied only about 1000 names would have to be modified. Of these, about 80% could be changed automatically without further intervention, with the remainder requiring review by the Minerals Task Group.

#### **Motion 1:**

The Minerals Subcommittee recommends to the Technical Committee that the Schaller modifiers (or Schaller adjectives) currently in use for mineral names be replaced, and that all mineral name modifiers follow these rules:

1. All modifiers are placed after the root mineral name. The root mineral name includes all modifiers essential to defining the species (e.g., Monazite-(Ce); Mckelveyite-(Y)-2M).
2. Compositional modifiers are placed immediately after the root mineral name and before any other modifiers. If there are multiple compositional modifiers, they are placed in order of atomic (or molecular) abundance in the specimen (e.g., Bismuthinite, Cu-Pb-bearing).
3. For a naturally occurring mineral that has not been chemically or structurally altered through human activity, only the modifiers ", oriented" and ", M-bearing" may be used, where "M" is an elemental or molecular symbol. Valence state is indicated when known and when significant for elements (e.g., Fe, Fe<sup>2+</sup>) and is always used for radicals (e.g., (OH)<sup>-</sup>, (SO<sub>4</sub>)<sup>2-</sup>). For elements that only occur in a single valence state in minerals (Na, Ca, Al, Cl, F, etc.), valence is not indicated. If the valence state is essentially neutral or if there is doubt about the valence state, then a valence state is not indicated.
4. For a synthetic mineral or a naturally occurring mineral that has been altered through human activity, the following modifiers may be used: ", M-exchanged", ", M-doped", ", M-deficient", ", M-saturated", ", heated", and ", glycolated", in which "M" is used as above.
5. The modifier ", syn" is placed after all modifiers except ", heated", ", glycolated", and ", oriented" (i.e., after all compositional (hyphenated) modifiers and before all unhyphenated modifiers).
6. The modifier ", oriented" may be used with any mineral name, and is placed after all other modifiers.

Example:

Montmorillonite-15A, Ca-Fe<sup>3+</sup>-Fe<sup>2+</sup>-bearing, Cr<sup>3+</sup>-doped, syn, glycolated, oriented

Root mineral name	Compositional modifiers	Synthetic	Other modifiers

L. Bernstein moved.

S. Misture seconded the motion and it carried.

7. New Business –the following.

**Motion 2:**

The Minerals Subcommittee recommends to the Technical Committee that as much as \$5,000 be allocated to cover expenses for the Minerals Task Group to meet at least once in FY 2011/2012.

L. Bernstein moved.

S. Misture seconded the motion and it carried.

8. The meeting was adjourned at 2:40 p.m.