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MINERAL NAMES

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The custom of using a single word for the name of a mineral, which began early in the history of the science of mineralogy, has been followed down to the present time, and we may reasonably expect that it will continue to be the method of naming species. There is no valid reason for departing from this custom and names such as cadmium oxide should not be considered as species names. It has always been the prerogative of the describer of a new mineral to give it a name, without rule or restriction, and, as a result of this freedom, mineralogy is burdened with many names which are misleading in their import or meaningless to those learning the science. Chester in his work "A Dictionary of the Names of Minerals" gave in 1896 the origin of nearly five thousand names and if this book were brought down to date it would contain possibly ten thousand or more names. Many of these names have been dropped as synonyms or have become obsolete, yet the list of species and varieties still presents a formidable array of names for the student of mineralogy to master. There are to date about fifteen hundred accredited species but the number of varietal names is far greater. Such a heterogeneous lot of names has created the impression that any name is good enough for a mineral and little thought is given to the future worth of the name.

The oldest mineral names are mostly of Greek origin, given to the mineral in allusion to some particular character or property which the specimen possessed. While these names have meanings which may have been understood by mineralogists of former days, the modern student, without a knowledge of Greek, is confronted by and compelled to learn, a host of words meaningless to him. Every mineral name can have an attribute which will aid the memory, so when wholly meaningless and unfamiliar names are used mineralogical science is made that much more difficult to master. The use of names of Greek origin should for this reason

be discontinued since it only continues to add valueless names to our mineral vocabulary.

The first departure from this source of names appears to have been in the use of mine and locality names. Mine names have little to commend them, since mines are of transient existence and pass out of memory and the retained mineral name ceases to have a meaning. Locality names are of much more value because they are more familiar to us, have a geographical meaning to them which aids the memory, and inform us of the original occurrence of the mineral. Such names are excellent for minerals but unfortunately each name is restricted to one species, so locality names can not be used for all minerals. We are sometimes in doubt as to whether the name is after a locality or an individual; when it represents both, as in the case of franklinite, it is an ideal name.

Chemical names have been proposed for minerals from a natural desire to devise names which will indicate, to some extent, compositions, and thus aid in the knowledge of them. There are a few cases of the simplest compounds where the name is an index of the contents of the mineral, but many of these partially chemical names are quite misleading and give us an erroneous idea of the composition of the mineral. It is impossible, except by word-building, to form single words that will express complex compositions and a simple mineral name is preferable to a long chemical name, like some of the German word-built names. Mineralogy is better off without these partial and unsatisfactory names. It is a science which treats of physical as well as chemical characters of minerals so there is no reason to prefer an unsatisfactory chemical name for a mineral. The frequent use of prefixes like chalco, ferro, natro, plumbo, baryto and even the common prefix hydro, has given us some curious names whose import is quite different from what the name apparently implies. Sometimes varieties are meant, and again it is a species name which bears no chemical relation to the mineral to which the prefix is added.

Chalcophanite suggests the presence of copper in the mineral. Hydrocyanite does not suggest anhydrous copper sulphate. Plumbogummite is not related to gummite. Ferrite and siderite are used indiscriminately simply to suggest the presence of iron, but no analogy exists between arsenoferrite, arseniosiderite, calcioferrite, phosphoferrite, phosphosiderite, chalcosiderite, plumboferrite, and xanthosiderite and we gain very little idea of the compositions from

these names. These chemical names on the whole only tend to confusion and had better be discontinued.

Neither names of Greek origin, mine, locality or chemical names are adaptable as a single source for the supply of names for all minerals. There is left for consideration the other common method of naming minerals, namely personal names, given to the mineral as an honor to the individual. An ideal name for a mineral should possess the following qualifications: (a) it should be familiar to mineralogists; (b) it should have a meaning of value to all mineralogists; (c) it should be an honor to, and enhance the value of, the science of mineralogy; (d) it should be applicable to the species independent of its origin, properties or localities; (e) it should come from a source abundantly able to supply names for the future describer of new mineral species.

It is quite evident that the names of noted persons are the only ones which will meet all of these requirements; names proposed in honor of those mineralogists, geologists, mineral physicists, mineral chemists and mineral collectors who contribute, or who have contributed to the advancement of mineralogical science. Names such as grothite, breithauptite, penfieldite, hauynite, wernerite, and many others famous in mineralogy, mean much more to us than mere mineral names. About one-third of the species are personal names although some are not names of note. Werner appears to have been the one who introduced the innovation of using personal names and it has become a favored method and it could be adopted as the uniform method and thus raise the dignity of the science.

Monuments and statues are erected for the purpose of keeping within our memory those who have achieved something, and mineralogists have at hand the means to perpetuate the names of workers in the science and at the same time give the species a name known to mineralogists and one worthy of a place in mineralogical science. All nationalities are represented by these names and everybody is satisfied. Since it is a common method in use of naming minerals, there is nothing radical in the proposition to adopt it as the sole method, which is quite possible, and the science of mineralogy would then have a name classification as well as a chemical and physical classification. Personal names are advocated because they are the only logical and feasible kind adaptable to a uniform classification.

Mineral species might well be named in honor of those contributors to the past history of mineralogy as well as in honor of the living individual. Priority should not be considered a bar to the revival of old names which have gone into disuse and liable to become lost to the science. Mineralogy needs an international group of patriots to sit in judgment on some of our mineral names and replace them by worthier names. Surname only should be used and it is doing little honor to a person to curtail or otherwise mutilate his name when using it as a species name.[1]

The matter of naming minerals is in line with the work undertaken by the Committee on Nomenclature and it is hoped that the members of the committee will consider this suggestion of using personal names wholly for future names of mineral species, and thus bring some order out of the present chaotic method of naming minerals.

[1] It does not seem as if it could be a great compliment to a friend whose wife's maiden name was Laura to call the mineral laurite instead of lauraite. Afwillite will lose its significance as time goes on. Borickite, descloizite, melonite, brookite, avogadrite and calaverite are shortened but not improved by the curtailments. *Ite* can be joined to any name and not make it harder to pronouce than some we have to contend with. It should be the function of an editor of a publication to refuse a partial or misspelled proper name.