Editorial

Latin, the oldest universal scientific language gives us *Tempora mutantur et nos mutamur in illis* (times change and we change with them). So it is for people, civilisations and the events shaped by them, including their culture and their science. Today the changes are realized nowhere so significantly as in communication.

Scientific journals respond to the challenges of change and emerge with enhanced capabilities to meet the needs of their authors and readers.

The *Journal of the Less-Common Metals* (*JLCM*) was founded in 1958 and has evolved continuously to its current status. From the very beginning it was broad in scope and in its international appeal. It is interesting to read the "Editorial" in volume 1 (1959) p. 1, most probably written by Professor Cuthbertson with assistance from Professor Hume-Rothery. Although the term "less-common metals" was in the title, the definition "what are usually called less-common metals" left the meaning of this term open to interpretation. Certainly the Editors realized the problem of defining the scope of a journal, and purposely left the matter unclear by later stating that "papers will not be limited rigidly to less-common metals". Browsing through the early volumes of the Journal, I find that my predecessors never took the work "metals" to have its strict physical meaning, but rather considered the relevant metals to be the metallic, as opposed to the non-metallic, elements. Nevertheless from time to time problems arose *e.g.* is titanium a "less-common metal"? Surely not, considering the distribution of the element in the Earth's crust.

In the first article of the Journal, the problem arose with the platinium metals. Are they really "less-common"? For an optical glass-maker, for producers and users of catalysts and even to jewelers and their customers, platinium metals are "most common". There were even more escape clauses provided in this introductory editorial: "when only one of the metals can be described as less-common" papers will be considered. So gallium phosphide is included.

In the years since then, the metal age has changed and we presently appear to be moving into the age of the compound, an age in which carbides, oxides, nitrides etc. of both metallic and non-metallic elements are of tremendous interest. Among the materials that have swept us into this age, the high-temperature superconductors, hydrides and magnetic materials, there have been many containing one or more "less-common" metals and thus from the outset *JLCM* has established a strong position in the sciences of materials. However, what about the carbides and nitrides of silicon, or boron carbides, and what connection is forged between a compound and an alloy simply because they contain the same "less-common metal"? It is only that

an alloy in general can be multiphase or one-phase and a compound by definition is one-phase.

Responding to questions such as these, the Editors felt that something had to be done to: (a) recognize the modern developments in materials science expanding the range of interest to include non-metals and (b) to show this wide scope of the journal on its cover. After extensive deliberations it was decided that the expanding scientific scope of the Journal would at this time be better described by the inclusive title, "*Journal of Alloys and Compounds*" (*JAL*). Alloys have, of course, been with the Journal since its very first issue which contained papers given at a conference in Oxford in 1958 on metals and alloys above 1200 °C (which the undersigned attended as a house guest of W. H. Hume-Rothery). The very first paper published in *JLCM* concerned the metals and alloys of the platinium group by E. Raub.

The definitions of "alloys" and "compounds" are open to so much discussion that it is worth an article in *JLCM* or *JAL*. For a compromise let us state the following. Alloys are metallic one- or multi-phase systems often having the structure of a "solvent" metal, and compounds are combinations of elements, different in general from their "parent elements", and metallic or non-metallic in their behavior. Thus the title, "*Journal of Alloys and Compounds*" describes accurately the journal as it has been from the beginning, but eliminates ambiguities that were introduced by both "less-common" and "metals" in the old title. The journal is concerned with the structure, properties and behavior of materials whether or not they be metals or non-metals, and whether or not they contain common or less-common metals. This keeps the scope wide open, as wide open as it was stated to be in the first editorial: "It is not intended to restrict the Journal to a specific group of metals, The field is a wide one and it would in fact be impossible to circumscribe it exactly".

All involved in the Journal – Publishers, Editors, Contributors and Reviewers – will strive to maintain to the standards laid down more than 33 years ago, standards which have proven to be highly successful.

The quality of the contents and the range of the fields of interest will remain as they have been. We will continue to be an international scientific Journal, publishing in English, French and German, and drawing together basic and applied work in the materials science, solid-state chemistry and physics of the alloys and compounds. There will continue to be an emphasis on, but not a limitation to, the solid state.

We feel that this change in title from *Journal of the Less-Common Metals* to *Journal of Alloys and Compounds* brings the title into closer correspondance with the aims and scope of the Journal. We maintained the exterior appearance to hold the memory of our so successful *JLCM*, and we do hope that this name change is appreciated by our authors and readers and helps guide the continuation of the *Journal of Alloys and Compounds* into the second millenium.

Ch. J. RAUB
EDITOR-IN-CHIEF