

The next slide (Figure 21) shows in an extremely rough and qualitative way a pictorial representation of the binding energy of the most easily removable 5f and 6d electron (of those present) for each of the heaviest elements.

The best method of presenting the actinide elements in the periodic table seems to be in a manner similar to that illustrated in the following slide (Figure 22). Here are shown the fourteen elements of atomic numbers 90 to 103 inclusive, with actinium (element 89) as the prototype, listed as a series below, and in a manner similar to, the common listing of the fourteen rare earth elements of atomic numbers 58 to 71 inclusive, for which lanthanum (element 57) is the prototype. It is not proposed that this particular form of the periodic table has any more merit than any of a number of others which place these elements in positions homologous to the rare earth elements, since it is obvious that they can be analogously placed in a number of other types of tables or charts.

The elements 90 to 96 inclusive or the first few of them could, in addition, be listed separately below the 5d transition elements in recognition of the resemblance of the first few of these to 5d elements. This appears to be undesirable, however, since the last members of this group bear no such resemblance and it is probably impossible to draw a line as to just where the resemblance ends. It should be noted that cerium, terbium, europium, etc. could be put in two places in the periodic table in recognition of their two oxidation states, but this practice is not usually followed.

The group probably could have been just as well described by some other term rather than "actinide," which is derived from straight analogy