

US, Brookhaven Nat. Lab.

MEMO CP-C/26

DA5/324-0

Date: December 28, 1977
 From: N.E. Holden, G.J. Waite
 Subject: Coding of SUPERHEAVY ELEMENTS
 Reference: 1. Memo 4-C 2/99
 2. Phys. Rev. Lett. 39 1246 (Nov. 14, 1977)

78/01/10
 IN ACTION COPY
 - Schmidt

In the above reference 1, it is recommended that superheavy element data not be entered into CINDA until the physical existence of such nuclei has been experimentally confirmed. There are some difficulties with this procedure.

- a) Either a separate record of the various references must be kept in order to insert them into CINDA after the above mentioned physical existence has been confirmed, or there is a good chance that such references will be permanently lost. This could create a bookkeeping problem of an underground CINDA source.
- b) The data in these references may very well be of interest and use to the community of CINDA holders, but they will not know of the existence of these references.

We would make an alternative recommendation that these references be coded in a separate section called Superheavy Elements with a code SHE similar to the present sections on compounds, fission products and many categories. These references could then be transferred to the appropriate ZAQ category if the physical existence is later confirmed.

The problem of official names for elements with Z=104 and higher has still not been resolved as of the most recent IUPAC conference in Warsaw in August 1977. Reference 2 above contains data on element Z=105. Since CINDA has chosen the Russian name kurchatovium for Z=104, we propose the non-Russian name hahnium for Z=105 until an official IUPAC decision is made.

For elements Z=106 and higher, we propose that they are all treated by the above superheavy convention until some official decision is made.

It might be noted that except for elements 104 and 105, no non-systematic name have yet been proposed.

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cf. above
Kammel
Kammel
Kosier
Martin - German 00855
Okamoto
Schworer
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