""" "current comments"

The Retrieval and Dissemination of Chemical Information. III.

The Index Chemicus Registry System® (ICRS®)

July 29, 1970

This is the third in a series of editorials concerning the retrieval and dissemination of chemical information^{1,2}.

The Index Chemicus Registry System (ICRS)³ was established by ISI[®] to permit computer searching of information contained in Index Chemicus. In January, 1970, Index Chemicus was superseded by the more comprehensive Current Abstracts of Chemistry and Index ChemicusTM. The total system is made up of four components:

- 1. Weekly issues of CAC (separate subscription)
- 2. Monthly WLN printouts (ICRS Substructure Index M)
- 3. Monthly magnetic tapes
- 4. Computer software -- RADIICAL (Retrieval and Automatic Dissemination of Information from Index Chemicus and Line Notations).

Index Chemicus has been described elsewhere⁴. Current Abstracts of Chemistry and Index Chemicus, discussed in a recent editorial⁵, is a weekly awareness journal which abstracts articles appearing in the world's most important chemical journals. Among its many unique features is the use of structural diagrams to depict new compounds as well as the synthesis route(s) taken.

The Wiswesser Line Notation (WLN) code, discussed in the second of this

series of editorials², is used by ISI for encoding *new* compounds. The *WLN* is a unique, unambiguous, and economical means of processing chemical structures by electronic data processing or computer equipment.

The monthly WLN printouts, provided as part of the ICRS system, permit rapid lookup of specific compounds as well as considerable latitude in substructure searching. For example, any search question involving a specific ring system can be answered in a matter of minutes by a quick scan of the printouts.

The magnetic tapes contain the following information from each abstract: abstract number, title of article, name(s) and address(es) of author(s), journal reference, descriptors assigned by indexers, use-profiles (when test data are included in an article), analytical codes (noting instrumentation used in defining the compounds), new-compound registry numbers assigned by ISI, new compound(s) in WLN form, and molecular formulas of new compounds. These tapes are provided on a monthly basis and provide a unique data base for organizations wishing to set up an internal computerized current awareness or retrospective search service. Subscribers may use their own search programs or those provided by ISI. The ISI programs, called

ordinary word-in-title searching. In mantanes, or peptides containing the ICRS the titles are enriched by indexer- sequence alanine/valine/alanine can be assigned descriptors. ICRS tapes can routinely answered on either a monthly also be searched by source author, basis or retrospectively. ICRS tapes organization, specified analytical data, are now available back to January 1, or specified test data.

Most important of all, it can be used concerning new phenothiazines, N- (back to 1960) are in preparation. for substructure searching. Questions

The ICRS system may be used for methylcarbamates, chlorinated ada-1967, covering more than 600,000 compounds, and the balance of 500,000 compounds reported in Index Chemicus

- 1. Garfield, E. The retrieval & dissemination of chemical information. Current Contents, July 15, 1970, issue no. 28, pp. M1-2.
- 2. Garfield, E. The retrieval & dissemination of chemical information. II. The Wiswesser Line Notation. Current Contents, July 22, 1970, issue no. 29, pp. M1-2.
- 3. Garsseld, E. et al. Index Chemicus Registry System: pragmatic approach to substructure chemical retrieval. J. Chem. Doc. 10, 54-58 (1970).
- 4. Revesz, G.S. & Warner, A. Retrieving chemical information with Index Chemicus. J. Chem. Doc. 9, 106-9 (1969).
- 5. Garfield, E. Current Abstracts of Chemistry and Index Chemicus. Current Contents, Dec. 2, 1969, pp. 4-5. Reprinted in Chem. Eng. News. 47(51), 66 (Dec. 8, 1969) and Chem. Industry, Jan. 10, 1970, p. ii.