

Book review

ISI Atlas of Science, by EUGENE GARFIELD, Institute for Scientific Information, Philadelphia, 1982, xvi + 540 pages, \$45 (individual) and \$90 (institution).

The *Atlas of Science*, compiled and published by the Institute for Scientific Information (the developers of *Science Citation Index* and *Current Contents*), is a reference work to the 120 most-cited sub-specialities in the research areas of biochemistry and molecular biology. Each sub-specialty or "Research Front" is reviewed in a mini-fashion (*ca.* 750 words), key documents in the development of the research front (termed Cited Core Documents) are listed, and these are followed by a compendium of Key Citing Documents, *viz.*, those documents which most often reference the core documents of the particular research-front.

The research-fronts that are presented in the Atlas were chosen for the year 1978 on the basis of an analysis of citation patterns found in *Science Citation Index*. A further analysis of these citation patterns selected out the sub-specialty core-documents. The publication dates of the core documents are generally in the 1970s, although an occasional, older article is found. The key citing-documents were chosen from a one-year period during 1977 and 1978. Supplementary, key citing-documents from a one-year period during 1979–1980 are also given. An analysis of cross-referencing between research fronts furnishes a measure of field-relatedness, from which a global map of biochemistry and molecular biology is constructed. The Atlas also contains author and topic indices.

The Atlas is designed to provide a topological over-view of biochemistry and molecular biology, summarize a given research front, and provide lists of major, core and citing documents in the specialty area. The practical value of this to a research scientist would then be to provide a thumb-nail sketch of a given area and a starting point for searching the literature.

In reviewing the Atlas, I have sought the help of a number of my colleagues (Drs. Frank Robey, Pam Robey, Kathy Zoon, and Derick Gates), who are active researchers in several of the specialized areas, and I shall try to provide a consensus critique. In general, the majority of the mini-reviews were considered to be adequately written; however, a significant fraction of them were regarded as being poorly written or confusing. The referencing, as previously mentioned, is based on citation frequency, and this leads to a useful selection of core documents. Nevertheless, the relevance of key citing-documents, chosen in such a manner, is questionable; often, scientifically important documents are passed over, while less important, relatively minor documents are selected.

For the working scientist, I think that the Atlas will prove to be of limited usefulness. The reviews are too short to provide an adequate introduction to a

research field, and the key citing-documents do not generally include the most important, current references in an area. The core documents are, of course, useful as departing points on a literature search, but these are generally available in review articles. The Atlas would appear to be of more use to a historian of science, or to someone who wishes a casual, bird's-eye view of molecular biology and biochemistry.

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