Ch. 3 – *Transactinide Elements,* by D. Hemingway.

The literature regarding superheavy elements has been summarized and divided in some sections in which predicted nuclear and chemical properties, methods of synthesis, and the natural occurrence (of superheavy elements) are considered. About this subject, most of the papers are theoretical ones because, unfortunately, costly machinery is required for the experimental preparation of superheavy elements.

Ch. 4 – *Radioanalytical Chemistry,* by G. R. Gilmore and G. W. A. Newton.

The radiochemical methods of analysis are finding increasing widespread routine use and the radioanalytical literature continues to proliferate, mainly by the efforts of activation analysis. At the present time the most exciting event is the increasing acceptance of the method in geochemistry, medicine, industry and many other fields. The radioanalytical literature has been divided in "Non-activation Techniques", "Activation Methods" and "Applications of Neutron Activation Analysis".

This book is a concise, well-organised and clearly written information source both to radiochemists and to nuclear chemists, particularly to those engaged in research concerning Recoil Chemistry and Radioanalytical Chemistry. Copies of this series should be in every university library where graduate work in Radiochemistry and Nuclear Chemistry is carried out.

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Hochdruck-Flüssigkeits-Chromatographie.
By H. Engelhardt. 52 Figures, 17 Tables x + 213 pp. Springer, Berlin 1975. Price DM 56, US$ 23.

High pressure liquid chromatography or more correctly high performance liquid chromatography may be defined as the successful marriage of column chromatography and instrumental analysis. It became obvious from work on gas chromatography that column methods at ordinary pressures (*i.e.* low speeds) were inefficient compared to the resolutions obtained in gas and thin layer chromatography. Combining high pressures with suitable detectors as well as special adsorbents which permit fast equilibration, produces a method which can analyse complex mixtures in a matter of minutes with simultaneous quantitation. The book by Engelhardt is an excellent introduction to this new technique and in about 200 pages the author surveys all the possibilities of HPLC in adsorption, partition, ion exchange and gel filtration.

It is a book that every practical chemist will read profitably. At first sight he will be impressed by the excellent separations obtained, then he will realise that rather expensive equipment is required, then he will read that he will have to buy special adsorbents or supports which are sold in small bottles for big prices and finally he will realise that to set up a successful separation may take weeks. No doubt he then has a technique which will work automatically for months.... But how often does he need this?

The book is well produced with numerous illustrations and an adequate bibliography.

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