

## REFERENCES

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Received January 23rd, 1954

## BOOK REVIEWS

*Isotopic Tracers in Biochemistry and Physiology*, by JACOB SACKS, McGraw Hill Book Company, Inc., New York, Toronto, London, 1953, vii + 383 pages, price \$ 8.50.

I believe this is a very useful book, for the research worker as well as the teacher of biochemistry and the student. In any case I have personally read it with great pleasure and profit. After some short introductory chapters (General principles in the use of isotopic tracers; Elements of nuclear physics and radioactivity; Measurement of radioactivity; The measurement of the heavy stable isotopes; Safe handling of radioactive isotopes; The scope of the tracer technique) the main topics for which the tracer methods have been used are treated in following chapters. It is obvious that the introductory chapters are not intended to, or ever could, give sufficient information to carry out tracer work independently. However, they contain several remarks which cannot be repeated too often. In particular the chapter on the scope of the tracer technique and its limitations has come out very well.

The specialized chapters are concerned with: Movement of ions across phase boundaries; Carbon isotopes in carbohydrate metabolism; Phosphorylated intermediates in carbohydrate metabolism; Metabolism of fatty acids, phospholipids and steroids; Metabolism of proteins and amino acids; Metabolism of nucleic acids, purines and pyrimidines; Radioactive iodine and the thyroid; Isotopes in the study of mineral metabolism; Tracer studies in the blood; Photosynthesis and related topics. They clearly show how many results of investigations carried out by means of the classical methods could be confirmed and extended by the use of the tracer technique. But above all they demonstrate the fundamental new insight given by the use of tracers, which would have been difficult to attain otherwise and would certainly not yet have been gained without them.

As a teacher I warmly recommend this book for use by students following advanced courses of biochemistry as a supplement to their usual textbooks.

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*The Theory of Wholes in Chemistry and its Bearing on the Nature of Biological Catalysis*, by J. VINE, Newman Wolsey Ltd, London, 1953, 97 pp., \$ 3.

The author suggests that he puts forward new theoretical aspects of biological catalysis. His theoretical considerations, however, can hardly be otherwise described than confused and the reviewer found his logic impossible to follow. He deals in a strange way with different theoretical fundamentals. In the opinion of the reviewer, this work cannot be recommended in any respect and it cannot fulfil any useful purpose.

On the subject of the action of enzymes, neither the present-day knowledge nor anything new can be learnt from this book.

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