be useful as a text in advanced courses, where the instructor can supplement it with lectures on current developments. It can be recommended to older chemists in other fields who would like to enlarge their horizons.

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About the Reviewer: Richard H. Wiswall, Jr. is a group leader in the Nuclear Engineering Department of the Brookhaven National Laboratory, where he has been since 1949. He received the Ph.D. in chemistry from Princeton in 1941, and first entered the nuclear field in 1943, at the S.A.M. Laboratory of Columbia University.

Russian-English Physics Dictionary. By Irving Emin. John Wiley & Sons, Inc., New York and London, (1963). 554 pp., $14.00.

The increase in communications between American scientists and Soviet scientists has been one of the wholesome characteristics of the late fifties and sixties of this century. The evidence presented to the world that citizens of two different ideologies can find in science something they agree on, something that they can discuss, something that they can argue about without emotional political overtones is an inspiration to others who are working in more difficult, controversial political relationships between the United States and the Soviet Union. To carry out this dialogue between physicists requires many aids, not the least of which is a good dictionary.

Dr. Irving Emin and the staff of physicist-translators associated with the Consultants Bureau have produced a fine "Russian-English Physics Dictionary." It took them seven years to compile it. It is based on practical experience of translating over 10,000 pages of Soviet physics journals published from 1955 to 1962. There can be no question that this dictionary is unique in that it is compiled not by academic scholars but by professional translators. The dictionary contains many useful features. Aside from the main body of physics terms in Russian and their English counterparts, it contains Russian abbreviations, Russian transliterations, basic vocabulary on chemistry, electronics, astronomy and geophysics, a grammatical reference section, and conveniently at the end of the book, a standard transliteration scheme. Dr. Emin and his colleagues are to be thanked for a useful aid and congratulated on producing a fine dictionary. Theirs should be the satisfaction of helping to keep up the dialogue between the English reading scientists and Russian writing scientists.

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About the Reviewer: John Turkevich received his Ph.D. degree in Chemistry from Princeton University in 1934 where he has taught since 1936 and where he is now the Eugene Higgins Professor of Chemistry. His service, in 1958, as Chairman of a U. S. Delegation of Educators to the USSR and as Acting Science Attache in the U. S. Embassy, Moscow in 1960-61 makes him exceptionally well qualified as the reviewer of Dr. Emin's dictionary.

The Nuclear Reactor. By Alan Salmon. John Wiley, N. Y. City. 144 pp., $3.00.

Reorganized and rewritten, this pocket-sized reference could become an indispensable guide for the young engineer and executive. Unfortunately, misplaced emphasis and simple error render this little British book worthless and misleading. A few random examples bring out its deficiencies:

(a) Though British practice should be highlighted, this statement on page 12 came as a surprise:

> "-a fission reactor first operated on December 2nd, 1942, in Chicago. The next step was also aided by military requirements, in 1956 the first large nuclear power station operated at Calder Hall."

(b) The uranium prices on page 31 appear to be a composite of two AEC schedules, issued at different times. Evidently the old (1955) figure of $40 per kg. was used for natural uranium along with the 1962 price of $12 per gram of U^{235} content in highly-enriched fuel.

(c) Down to earth concepts and simple numerical problems should have enlivened this book. For instance, I could find no discussion of critical mass or approach to critical loading, nor are these topics included in the brief index. Numerical calculations are needed to elucidate such formulae as for mean free paths in mixtures, buckling, and criticality.

(d) Discussion of heat transfer is largely limited to conduction, and scant space is given to heat-transfer coefficients. Many monographs become engrossed in elaborate