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This Week's Citation Classic

Kubaschewski O & Alcock C B. *Metallurgical thermochemistry*. Oxford: Pergamon Press, 1979 (1951. Evans E L) 450 p. [National Physical Laboratory, Teddington, Middlesex, England]

Quoting a friend, 'This monograph was written on the right subject, at the right time, by the right person.' The success probably stems from the comprehensive critical tables, new modes of estimating unknown data, examples of industrial applications and the fact that the author is a poor mathematician. [The $SCI^{@}$ indicates that this book has been cited over 2,250 times since 1961.]

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"Among my colleagues, I know of no one who set out to write a best-selling scientific monograph or a much-cited paper. Thus, the author of such a contribution to science seems to be the last person able to assess the popularity of his work. However, at the request of the present publishers I shall try.

"Reason number one is the fact that I am a poor mathematician whereas chemical thermodynamics, the field in question, demands a good mathematical background. So, I was forced to find short-cuts to do simple arithmetic, sometimes at the cost of mathematical subtlety and accuracy. Many a studentreader must have been grateful for this, helped by the publishers who kept the price of the copy reasonably low for all the English editions.

"Reason number two is the extensive tabulation of thermochemical data which form about one third of the book. May I advise scientific writers interested in sales figures to include tables of *critical* data pertaining to their subject. "Further, there are two aspects of chemical thermodynamics which are not treated elsewhere in so comprehensive a form: these are the examples of practical, including industrial, applications drawn from experience and modes of estimating unknown values by educated guesses. These two subjects are interrelated since one rarely has all the data available from experiments to tackle an industrial enquiry.

"These I believe are the reasons for the wide interest my effort is enjoying. As for history, this started when Friedrich Weibke died at Stuttgart in 1941 leaving a manuscript of a monograph entitled 'Thermochemie der Legierungen' unfinished and I was asked to complete it. Published by Springer, Berlin, it appeared in 1943, but alas! almost the entire edition fell victim to allied bombing at Leipzig, being later (1948) reprinted in the US.¹

"Encouraged by N.P. Allen of the National Physical Laboratory, England, to where I was imported in 1947, and in particular by my late friend Paul Rosbaud who had acted as a consultant to several publishers, I set out to write a similar story on a wider scale. In my middle thirties, I was then just at the right age: still full of youthful presumption, scoffing at perfection on the one hand and sufficiently experienced in the various aspects mentioned on the other. In contrast, there is a saying that aging physicists drink red wine or write books on thermodynamics (or do both!).

"Of obstacles there were none. Still, one might record the draw-back that no official time was allotted to the task which had to be accomplished in private time. However, such a project *must* be handled in one go (more advice to prospective authors!). Thus my wife found her newly-wed husband writing away on our honeymoon — and many a night was later sacrificed when one new edition after another was called for."

^{1.} Weibke F & Kubaschewski O. Thermochemie der legierungen. Berlin: Springer, 1943. 357 p.