

LETTERS TO THE EDITOR

TO THE EDITOR:

As a chemical engineer trained in the United States, I have great respect for the standard created and maintained by the A.I.Ch.E. Journal. It is precisely for this reason that I am writing this letter. A few points came to my mind which, in my opinion, could lead towards improving the Journal.

The first was about the 'Book Reviews'. I have noticed that every issue of the Journal devotes about two to three pages regularly to them. Perhaps more than 95% of those come out of the same mould, e.g. Chapter 1 deals with the fundamentals of this topic, Chapters 2, 3 and 4 contain an elementary treatment of the subject, Chapters 5 and 6 introduce the reader to the present state of the art, etc. More often than not, a review ends saying: This is a welcome addition to the chemical engineering literature and belongs on the shelf of every researcher and practising engineer.

When I read such reviews, I reach two conclusions immediately: one that the reviewer hasn't simply bothered to critically examine the book and the other that I myself could have obtained the same information, if not more, by going through the contents of the book on the first page. So why does the Journal not merely reduce the size of the contents in the book itself by the reduction-copying technique and expose it in the Journal instead of such long, page-consuming, meaningless reviews? This latter would save a lot of time and money required to ask someone to review the book. Alternatively only the titles of the newly published books could be mentioned along with very very brief critiques in passing (something like a rapid review). Thus the space saved by any of these procedures could be used for a couple of extra articles per year, helping to reduce the delay in publication and consequently helping the researcher in the industry in applying new ideas a little earlier.

The second point that came to my mind was about the editorials or the lack of them. I can't help but feel nostalgic about the old A.I.Ch.E. Journal days when there used to be an editorial most of the time. An editorial

gives a very refreshing outlook to even a research and development oriented journal. To both the fresh and the graduating engineers who look forward to entering a new and competitive world, an editorial comment from an experienced engineer would guide them and at times even give them courage (I remember how Harding Bliss had pointed out a self experience in one of his editorial writings—that he had been saved by a timely published article—a common occurrence in an industrial environment. Such observations of eminent engineers really are valuable for a down-to-earth research and development.) If the editor himself doesn't have the time to write them, he could invite guest editorials from renowned chemical engineers—and for God's sake, we have so many of them.

The third and the last but certainly not the least point that came to my mind was about the Journal format. I am sure this has been discussed and re-discussed before but still I would like to pitch in. My observation shows that there is a great overlap among the synopsis, the scope, and the conclusions and significance sections of most articles. I feel you are wasting a lot of valuable space since the result is not proportional to your expectations. The A.I.Ch.E. Journal is not for the managers and administrators who are simply to look at the above mentioned bold-faced sections. It is meant for a genuine research and development engineer who is wise and mature enough to peruse an article for its salient features without spending too much time. If you are trying to simplify his work by supplying him the summaries compiled by the authors themselves, there's a great danger of misleading him since they are most likely to be biased. Let the client judge the merit of the product for himself and decide whether to buy it or not. Can we stop this costly experiment and go back to the same, original format? If this is not possible for some extraordinary reasons, could we plead the authors to be more elaborate about the significance of their articles?

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A REPLY

The comments from Dr. Ajinkya are appreciated, and we feel that they deserve a reply.

Book Reviews

The Journal is one of the few R&D journals in chemical engineering to publish book reviews. Even so, we only review about 1 out of 4 books received. For each review, we try to locate an individual who is well qualified—but too often the book is returned to us with the comment that there is no time. To review a book well is indeed a difficult and time-consuming task. No compensation is offered and many consider this effort thankless. Nevertheless, we do receive many excellent, critical reviews which indicate the strong and weak points of the book. True, a few follow the less imaginative route you describe, but even in such cases, there are normally included informative comments concerning the depth or adequacy of coverage.

Journal Format

The comments regarding the Abstract, Scope and Conclusions/Significance sections are very pertinent. You are not alone in your opinion. The Editorial Board has discussed the desirability of these sections in great detail.

Let us review the original purpose for implementing these sections. The Journal publishes papers in many areas of chemical engineering. Few readers have a sufficiently broad background to read and appreciate papers outside their immediate field. Yet we sincerely want readers to be able to sample new ideas in diverse fields. Call it technology transfer or call it continuing education, it seems desirable to provide a mechanism whereby, for example, an individual working in catalyst deactivation may learn of new developments in phase equilibria, control theory, etc. This could not be accomplished with the Journal's previous structure. Authors write for their peers, and specialized jargon and nomenclature develop; papers which editors insist be succinct provide only brief introductory sections.

We have seriously considered this problem and formulated the guidelines

to the Scope and Conclusions/Significance sections which are given in the Instructions for Contributors. Let us re-examine these points: the Abstract is to be brief and informative. It serves two primary purposes. It indicates to a reader the essence of the material covered and it is useful for bibliographical control purposes, e.g., for *Chem. Abs.* The abstract should not normally exceed about 50 words. The Scope (as well as the Conclusions/Significance) is to be written for the general reader. It is to provide the background to the study, i.e., why was it done, what is the relevance to the profession, what significant prior work is important, and how does the present work complement or extend the present state?

The Conclusions/Significance should tell the reader what results were obtained and why they are significant. With well written Scope and Conclusions/Significance sections, readers should be able to determine more readily why the work was done and of what importance are the results. Then

a reader may study the detailed paper if he or she chooses. A reader can always skip the front sections and read the paper directly, but surely, there are many fields where one does not want to read the entire paper but still wishes to keep abreast of new ideas and developments.

From the comments of many readers, it is ruefully concluded that the format has not been an unqualified success. Why? One reason is that authors balk at spending time and effort in writing lucid, interesting Scope and Conclusions/Significance sections. As noted previously, they still write for their peers and it is of less importance to them to tell their story to the general audience. Another reason is that most authors have developed a style which is not particularly articulate and conducive to descriptions which are simple and readily understandable; for example, the specialized jargon has become too deeply ingrained. The editor can be blamed for not enforcing strict standards. He has, however, tried many

ways. In one case, he cajoled his colleagues into reading *only* the Scope and Conclusions/Significance section of many papers and offering comments. While the suggestions tendered were invaluable, it took considerable time and could not be continued indefinitely. A professional rewrite specialist (from Union Carbide) tried rewriting several Scope and Conclusions/Significance sections of papers already published. The Editorial Board found the writing significantly improved, but in several cases, there were subtle changes in emphasis or interpretation which would have been rejected by astute authors.

No method has yet been found to insure satisfactory Scope and Conclusions/Significance sections and yet not unduly delay publication. The editor and most members of the Editorial Board feel that the Journal format is a step in the right direction. Implementation has, however, been far more difficult than expected. We encourage readers' comments to Dr. Ajinkya's letter and our reply.

ERRATA

The paper "Grouping of Many Species Each Consumed by Two Parallel First-Order Reactions," by Dan Luss and Sudhir V. Golikeri, *Journal* [21, p. 868 (1975)] has errors in equations 27, 28 and 36. They should read:

$$\frac{dy}{dz} = \frac{d\bar{B}}{d\bar{C}} = \frac{\alpha + 1}{M(t + \beta)} \quad (27)$$

$$\frac{\bar{B}}{\bar{C}} = \frac{\sum_{i=1}^N \frac{k_i A_i(0)}{k_i + k_i^*} (1 - \exp[-(k_i + k_i^*)t])}{\sum_{i=1}^N \frac{k_i^* A_i(0)}{k_i + k_i^*} (1 - \exp[-(k_i + k_i^*)t])} \quad (28)$$

$$S(t) = \frac{\bar{B}(t)}{\bar{C}(t)} = \frac{I_B}{I_C} \quad (36)$$

The table of contents in the September 1975 issue of the *Journal* has an error. It should read A. S. Michaels and not A. J. Michaels.

In "Corotational Rheological Models and the Goddard Expansion," by R. B. Bird, O. Hassager, and S. I. Abdel-Khalik, *AIChE J.* [20, 1041-1066 (1974)], heading in 2nd column on page 1051 should read "Relaxation" and not "Relation".

Equation (7.2) should read α_1 and α_2 are functions of $t - t'$ as well as of the invariants of the γ -tensors; these invariants are to be evaluated at time t' .

Equation (8.3) should read

$$G_{II}(t - t', t - t'') = \frac{n_0 kT \lambda}{35} \left[24\delta(t - t') + \frac{9}{\lambda} g(t', t'') \right] \exp\left(-\frac{t - t''}{\lambda}\right)$$

The paper "A Generalized Thermodynamic Correlation Based on Three-Parameter Corresponding States" by B. I. Lee and M. G. Kesler, *Journal*, 21, 510 (1975) and "Erratum" 21, 1040 has an error in Eq. (15). It should read:

$$\left(\frac{\partial P_r}{\partial T_r}\right)_{V_r} = \frac{1}{V_r} \left\{ \dots + \frac{c_1 - 2c_3/T_r^3}{V_r^2} + \frac{d_1}{V_r^5} - \dots \right\}$$