

## SOME READER REACTIONS TO ABSTRACT BULLETIN STYLE\*

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Industrial organizations-- private companies and industrial institutes -- are today paying increased attention to carefully oriented abstract bulletins as an effective means for keeping industrial scientists and engineers abreast of current technical developments. This heightened interest stems in large part from the urgent need to divert the rapidly rising flood of publications into channels that individuals can personally navigate. There are other ways in which this can be done -- periodic expert reviews, notification services from information scientists or librarians, etc. -- but no one of these by itself has yet been accepted as being equally effective or economical.

The reasons why companies feel that their own or industrial-institute abstract bulletins are uniquely important -- why Chemical Abstracts and similar technical-society abstract journals do not suffice in themselves -- have been discussed in previous papers.<sup>2,3</sup> For the purposes of this study, industry's needs for adequate coverage and sharp selectivity, real promptness, good writing, and multiple-copy economy must suffice to indicate the desirability of specially-oriented abstract bulletins.

Even if they achieve these goals -- excellent coverage, promptness, writing, and economy -- company bulletins of abstracts must also be carefully oriented to the desires of readers if they are to succeed in putting information into their heads instead of on their desks. This requires careful analysis of reader backgrounds and habits, and the application of techniques of writing and graphics that have proved successful in other fields of publishing. Sometimes, however, there is no way to predict or gauge reactions to alternatives that are based on widely different premises except by asking the readers themselves. This paper reports those results of several reader inquiries which appear to have general significance.

### THE ESSO RESEARCH ABSTRACTING PROGRAM

Before describing these inquiries, however, a quick look at the Esso Research abstracting program on which they were based is in order. For the past 21 years (out of a total of 41 years of abstract-bulletin publishing), Esso Research has issued two separate weekly bulletins of literature and patent abstracts, on petroleum refining and related subjects. Literature and patents are covered separately because putting both types of abstracts in one bulletin might make it unappealingly bulky, and also because not

everyone interested in the literature is also interested in patents, and vice versa.

Each of these weekly bulletins is sent to 1,000 - 1,100 people at Esso Research and its worldwide affiliates in the Standard Oil Company (New Jersey) family -- some 400 - 600 at Esso Research and 500 - 600 to 26 affiliates in 17 countries. The monthly bulletins that will be discussed later each go to 300 - 400 people.

These bulletins all contain comprehensive technical abstracts and are intended to be most useful to the Company's research scientists and engineers. This means that almost no abstracts of management documents are included. News items or descriptions of new plants or new commercial products are not abstracted unless they report new or useful technical information. In essence, abstracting is restricted to documents that report fundamental or applied scientific and engineering information, not "all the items of petroleum significance" in the sources surveyed.

Under these circumstances, it has been reassuring to learn from various surveys that the bulletins actually are more useful to research technical people than to refining technical people. Relatively greater emphasis on products and processes, as against materials and equipment, also explains why chemists and chemical engineers use the bulletins much more than do nonchemists.

Somewhat more nonsupervisors receive the bulletins than do supervisors; moreover, the nonsupervisors make disproportionately greater use of them, probably because of the nature of their work. There is surprisingly little difference in the intensity of use and desires of those with different academic degrees (bachelors, masters, doctors).

While Esso Research people use the bulletins more intensively than the technical staffs of affiliates, this is largely attributable to lesser use by refining people (already mentioned), smaller library holdings at many other locations, language problems (the Company has many foreign affiliates), etc. Use by closely-affiliated domestic research groups is very similar to that at Esso Research.

Most bulletin readers say that they read every issue, and that they regularly ask for originals of items cited in them. More ask for literature than for patents. Most bulletin readers (63%) say that they use the bulletins as a supplementary means of keeping up with the literature, but 37% say that the bulletins are their primary means.

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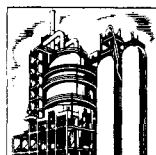
The Technical Information Division has gained a considerable amount of information about bulletin readers and their general and specific desires for information from the surveys that will be described later and from a Company-wide open-end interview survey. However, all this is only background here for this report on findings that may have general significance to abstracting programs.

Until late 1957, the covers of the weekly bulletins usually contained only the tables of contents; at that time they were changed to contain selected interpretive digests of the items deemed most important to Company people and programs (Fig. 1). These highlights pages were also sent as separate bulletins to people too busy to read even a few sections of the entire abstract-containing bulletins.

## Manufacturing

# LITERATURE

TECHNICAL INFORMATION DIVISION BULLETIN  
ESSO RESEARCH AND ENGINEERING COMPANY



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Bulletin 1, No. 48

## Highlights . . .

Olefins are produced directly from crude oil by fluid coking in a new plant installed by Badische at Ludwigshafen (L-1099a).

An internal-combustion engine with only two moving parts has been developed by Curtiss-Wright and the German firm NSU Werke. The engine is basically a three-sided rotor that rotates eccentrically in a housing, forming compartments in which compression, ignition, expansion, and exhaust occur. Initial production models will have 100-700 hp (L-1124a).

Air oxidation of C<sub>16</sub>-C<sub>18</sub> hydrocarbons at 140 C has given 60% (mol) yields of ketones in work described in a Russian paper (L-1106a).

Fig. 1 — Portion of a "Highlights" page.

As another 1957-instituted change, the Technical Information Division began to publish series of specific-field abstract bulletins on subjects that previously had been covered in sections of the over-all bulletins. These series now include "Applied Mathematics Literature," "Transportation and Storage" (1958), and--new in 1960--"Analysis and Instrumentation."

These changes were based on earlier studies, expert advice, and conference decisions, and apparently were very well received. However, it appeared quite desirable to determine actual reader preferences before instituting further changes based on similar principles. Accordingly, bulletin readers were queried during 1959 on alternatives involving: (1) the desirability of continuing to use a new abstract-writing style that employs a findings-oriented topical sentence and places subject-oriented titles and other bibliographical data at the end of the abstracts, (2) the utility of the "highlights pages" and of the separate single-sheet "highlights bulletins," and (3) publishing several more single-field bulletins and thereby discontinuing the present two weekly over-all bulletins, one of literature abstracts and the other of patent

abstracts. The first questionnaire was not sent to readers in Company affiliates, to save time and expense.

## ABSTRACT-WRITING STYLE

In writing their abstracts, Company abstractors and editors have always felt that bulletin readers demand clarity, accuracy, and brevity, and that they want to know the exact findings reported, not just the subjects worked on; i.e., that they want well-written, short, informative abstracts, not indicative ones.

d) ISOMERIZATION OF n-HEPTANE IN THE PRESENCE OF ISOBUTANE CATALYZED BY  $\text{AlCl}_3$ -HYDROCARBON COMPLEX CATALYST. H. J. Hepp and L. E. Drennan (Phillips Petrol. Co.) (Paper, 135th A. C. S. Meet., Boston (4/5-10/59); Div. Petrol. Chem. Isomerization Symp. 4, No. 2: A81-88 (Apr. 1959) (API)

Isobutane suppressed disproportionation during isomerization of n-heptane in the presence of aluminum chloride-hydrocarbon complex catalyst and hydrochloric acid, over a concentration range of 0-5 moles of isobutane per mole of n-heptane. Although complete inhibition of side reactions could not be obtained, the fraction of n-heptane converted to isoheptanes was increased to 70% at 5:1 isobutane/n-heptane mole ratio. (14 references)

Fig. 2 — A source-oriented abstract.

All of these criteria can be met by the conventional source-oriented abstract (Fig. 2), and this was the style chiefly used in Esso Research bulletins until late in 1957. At that point, however, it was decided to apply to the abstracts some of the recent findings in rapid reading and graphics.

It had been observed that news notes in magazines get right to the point, so that readers can tell quickly what each item is about. While abstractors had always tried to write topical sentences for their abstracts reporting subjects and findings succinctly, it was decided that readers might like to have these unobscured by bibliographical details. Encouragement in this regard was received from qualitative reactions to a 1956 opinion survey on various abstract formats. In short, late in 1957 the bibliographical data were dropped to the end of the abstracts (Fig. 3).

Reception apparently was quite favorable, but since several changes had been made in a short period it was hard to gauge the reactions to any particular one. Accordingly, in the fall of 1959 a "Questionnaire on Abstract-Bulletin Writing Style" was sent to the then-660 Esso Research readers of the "Manufacturing Literature" bulletin. Readers in affiliates were not surveyed, for reasons of speed and economy, although they would have been contacted later had the results from Esso Research readers proved inconclusive.

d) Isobutane suppressed disproportionation during isomerization of n-heptane in the presence of aluminum chloride-hydrocarbon complex catalyst and hydrochloric acid, over a concentration range of 0-5 moles of isobutane per mole of n-heptane. Although complete inhibition of side reactions could not be obtained, the fraction of n-heptane converted to isoheptanes was increased to 70% at 5:1 isobutane/n-heptane mole ratio. (14 references)

H. J. Hepp and L. E. Drennan (Phillips Petrol. Co.): "Isomerization of n-Heptane in the Presence of Isobutane Catalyzed by  $AlCl_3$ -Hydrocarbon Complex Catalyst."-(Paper, 135th A.C.S. Meet., Boston (4/5-10/59); Div. Petrol. Chem. Isomerization Symp. 4, No. 2: A81-88 (Apr. 1959) (API)

Fig. 3 - A news-type abstract.

To illustrate the subject, two versions of an actual bulletin page, not a best-foot-forward synthetic sample, were attached to the questionnaire; this example page was taken from a portion of the bulletin where titles are fairly descriptive, e.g., representative of those used in good technical journals. The topical sentences were left unchanged when the bibliographical data were moved to the front of the abstracts in the examples given for that style.

Readers were asked to report their preference in terms of their own reading. General opinions were not desired.

The results of the survey are surprisingly clear and conclusive: of the 402 respondents, 61% prefer the topical-sentence-first style, as shown in Table I. This style actually is preferred by 66% of those who showed a definite preference.

Since this finding was not a foregone conclusion, it had been thought desirable to learn exactly who was perturbed in order to better understand why. The questionnaire had therefore asked for reader identification by position, college degree and field, and Company division. What was learned from these details was that there is a remarkable unanimity of opinion on the subject among different reader groups, as may be seen in Table II.

This unanimity is what gives this method of writing abstracts some validity for use by others in the chemical- and industrial-research fields. If nothing else, the findings demonstrate rather conclusively that a large, heterogeneous chemical-research audience can be converted in less than two years from reasonable satisfaction with source-oriented abstracts to definite preference for news-type abstracts.

### HIGHLIGHTING IMPORTANT DEVELOPMENTS

Prior to initiation of the program of highlighting each week's most important reported developments -- those most important to Com-

pany programs -- on the covers of the "Manufacturing Literature" and "Manufacturing Patents" bulletins, considerable thought was given to possible consequences. It was agreed that major errors of omission might invalidate the whole program, since there is always the danger that too many Company people may lean upon it as a crutch -- may depend entirely upon the highlights when they should be checking all of the abstracts in their specific fields.

The Technical Information Division's most effective solution to this problem was (and is) to have the actual selection of items made by its information-research people (doctorate-level scientists and engineers with many years of Company experience). These men review copies of all the abstracts prepared and then write their Company-oriented interpretations after referring to the original documents of the most interesting items.

TABLE I. RESULTS FROM A QUESTIONNAIRE ON  
ABSTRACT-BULLETIN WRITING STYLE

	Answers (% of 402)
For your own reading, do you prefer:	
The (present) topical-sentence-first format . . . . .	61
The bibliographical-data-first format . . . . .	31
Other . . . . .	1
No particular preference . . . . .	7
Total . . . . .	100

The stated purposes of the highlights pages are: (1) to guide regular bulletin readers quickly to items of outstanding importance, (2) to give over-all highlights information to those who regularly read only a few specific sections of the bulletins, (3) to call at least the most important developments to the attention of nominal readers of the bulletin who actually do not open it but are willing to read the covers, and (4) to encourage the latter readers to use the bulletins more effectively -- at least to open them for more information on items of real interest. For management people specifically, and for any others who want them instead of the entire bulletins, these pages are also issued separately as single-sheet highlights bulletins. Nearly 100 people avail themselves of this latter service for each bulletin (literature and patents).

Although the highlighting effort apparently was very well received from the start, it was deemed highly desirable to get a quantitative reading on the value of the program, since this requires considerable effort. In May, 1959, therefore, some 22 months after initiation of the highlighting program, questionnaires were attached to one issue each of our "Manufacturing Literature" and "Manufacturing Patents" bulletins and also to the corresponding issues of the highlights-only bulletins.

Table III shows the statistical results obtained. A meaningful fraction of each audience replied to the questionnaire -- from 15 to 45% of those who receive the specific highlights services. From the answers obtained, the following general conclusions were derived:

TABLE II. READER-GROUP ANSWERS TO A QUESTIONNAIRE ON ABSTRACT-BULLETIN WRITING STYLE

Reader groups	Preferences (% by group)			
	Topical-sentence first	Biblio.-data first	Other	No pref.
By Position				
Supervisors (162)*. .	64	28	-	8
Nonsupervisors (186)	61	32	1	6
By Highest Degree				
Doctorate (168). . .	56	39	1	4
Master's (89) . . . .	65	23	1	11
Bachelor's (123) . . .	67	27	0	6
By Field of Degree				
Chemistry (151) . . .	61	32	1	6
Chem. engineering (181) . . . . .	62	31	1	6
Other (39) . . . . .	67	18	-	15

\*Number of individuals shown in parentheses.

1. Highlights are deemed useful by a considerable majority of readers -- by 86% (100% minus the 14% who reported that the "highlights have been of no use") of those who replied.

2. Only a relatively small percentage of those who receive the entire bulletins -- 15%, over-all -- report that reading the highlights makes it unnecessary for them to look at the rest of the bulletins. There can thus be no question of circulating only the highlights pages to the bulk of bulletin readers.

3. A greater percentage of readers of the entire bulletins request the actual documents highlighted than of those who receive only the single-sheet highlights bulletins. This is not really surprising, since the latter are chiefly

management people who want this information for general background.

4. More people follow up on literature highlights than on patent highlights.

5. A sufficient number of items apparently are being reported, and are being described in adequate detail (e.g., length). Endorsement was received for the practices of holding each issue of highlights to a page or less, of not writing highlights just to fill the page, and of concentrating on subjects of direct interest to the Company. While readers urged that the writing style not be too terse, they also suggested the occasional use of one-sentence highlights.

6. Most readers either don't care whether "highlights" are grouped under headings, or actually don't want this done. Only 31%, over-all, were actually in favor of the idea, mostly readers of the patent bulletin and of the single-sheet highlights bulletins.

Most of these findings are valid for any highlighting program. In the aggregate, they constitute an endorsement for one.

### MULTIPLE BULLETINS

The Esso Research program of publishing several abstract bulletins, instead of one, was adopted for a variety of reasons. As mentioned, most of the abstracts are published in separate weekly bulletins of literature and patents primarily to keep down individual-issue size, and secondarily because the audiences for these bulletins are somewhat different (although they actually vary less than 20%). However, publication of series of monthly specific-field abstract bulletins, containing both literature and patents, was initiated for a combination of rather interesting reasons:

1. There were several reasonably-large specific-field groups inside the Company who

TABLE III. ESSO RESEARCH "HIGHLIGHTS" QUESTIONNAIRE RESULTS

	Readers of Attached "Highlights" Pages		Readers of Single-Sheet "Highlights" Bulletins	
	Literature Bulletin (% of 243)	Patent Bulletin (% of 149)	Literature (% of 45)	Patents (% of 24)
1. Did you find these "highlights": <sup>a</sup>				
Have called your attention to pertinent items (you'd have missed) <sup>b</sup> . . . . .	74	70	67	42
Have made it unnecessary to look at rest of bulletin . . . . .	13	18	56 <sup>c</sup>	50 <sup>c</sup>
Have served some other purpose . . . . .	2	7	11	8
Have been of no use . . . . .	13	14	7	30
2. During the past six months have you requested items cited in the "highlights"				
Several times . . . . .	24	19	7	0
Once or twice . . . . .	42	30	33	13
No . . . . .	28	48	60	87
No answer and "Other" . . . . .	5	3	0	0
3. Do the "highlights" pages contain:				
Enough items . . . . .	81	85	85	75
Too many items . . . . .	2	1	2	0
Not enough items <sup>d</sup> . . . . .	4	4	2	0
No answer and "Other" . . . . .	13	10	11	25
4. Are the individual "highlights":				
About right in length . . . . .	86	89	89	71
Too long . . . . .	3	3	0	0
Too short . . . . .	2	0	7	8
No answer . . . . .	9	8	4	21
5. Should "highlights" be grouped under headings:				
Yes . . . . .	24	36	38	46
No . . . . .	27	17	15	4
Don't care . . . . .	45	44	47	38
No answer . . . . .	4	3	0	12

<sup>a</sup>Some checked more than one answer, hence answers add to more than 100%.

<sup>b</sup>This phrase was not in parentheses in the questionnaire, but some answers indicate that it was partially ignored.

<sup>c</sup>A rather meaningless question to have been posed to these audiences, since none of these readers get the entire bulletins.

<sup>d</sup>A volunteered answer.

were interested in only one or two small sections of the weekly bulletins and who didn't like to thumb through them looking for the relatively few items reported weekly. They wanted and asked for special abstract bulletins addressed specifically to their needs.

2. Keeping up with information on the subjects of interest to these specific groups was not basically important to the bulk of the weekly-bulletin readers, except for occasional documents. The average bulletin reader would thus benefit from smaller weekly bulletins if these continued to include the occasional really-important abstracts in these special fields.

3. The economics of publishing small (300-400 copy) monthly editions of specific-field bulletins were highly favorable when compared with including the same abstracts in the 1,000-1,100 copy editions of the weekly bulletins, as regards both printing and mailing. Inside the same budgets, funds could be applied to increasing abstracting coverage in the specific fields.

In 1957, publication of a monthly "Applied Mathematics Literature" bulletin was initiated, followed in 1958 by a monthly bulletin of literature and patent abstracts on "Transportation and Storage." Both met with apparent success. Circulation grew, but within anticipated bounds. No complaints were received.

In early 1959, as background for long-range planning, it was decided to test several theories -- to learn:

1. Whether readers would prefer separate bulletins on "Petroleum Processes and Products" and "Chemical Processes and Products," each containing slightly increased coverage of both literature and patents, rather than continuing to receive the present over-all "literature" and "patent" bulletins. It was realized that the Company's work in these areas -- petroleum and petrochemicals -- was divided among distinct divisions, but it was wondered if overlapping interests, personnel rotations (hence desire to keep up with developments in fields of past or anticipated work), inclusion of patent abstracts with those of literature, antipathy to receiving more than one bulletin (for those wanting both), and antipathy to greater length (caused by the increased coverage and by the need to publish nearly 30% of the abstracts in both bulletins) would combine to defeat the theoretical advantages of receiving bulletins that were more complete and were focused more sharply on distinct fields of the Company's work.

2. Whether readers would prefer to receive a specific-field monthly bulletin on "Analysis and Instrumentation" instead of continuing somewhat-lesser coverage of these subjects in either the present weekly bulletins or in the possible separate ones on petroleum and petrochemicals. Some wondered if research men working on products and processes ought not to be expected to keep up with developments in their quality control and methods for identification, or at least to have this information regularly delivered to them in order to encourage them to read it. Some wondered if so many readers already read these abstracts regularly that there would be few who wouldn't also want to receive a special bulletin in this field if one were issued, hence that there would be no economies in printing and mailing a separate bulletin.

It was realized that all of the sources specifically pertinent to analytical chemists and to engineers working on instrumentation were not being covered, and that all of the pertinent abstracts available were not being published, for reasons of space and budget limitations, but it was also wondered if such increased coverage was strongly desired.

In February, 1959, therefore, a test package of "new" and "old" bulletins was sent to the some-1,300 people who regularly received one or both of the two present weekly bulletins, along with a comprehensive questionnaire. This package contained: (1) one issue each of the two regular weekly bulletins, as a baseline for arrangement and coverage, and (2) three experimental bulletins on "Petroleum Processes and Products," "Chemical Processes and Products," and "Analysis and Instrumentation" which contained somewhat-expanded subject coverage.

Within the period set for tallying, 357 replies were received; eventually, a total of 538 answers straggled in from affiliates all over the world and were tallied and analyzed for the purpose of this paper. In all, 313 Esso Research people replied, plus 216 people from affiliates (33 at U. S. refineries) and 9 readers at unidentified locations.

TABLE IV

Would you prefer the experimental bulletins?

	(Per Cent)	
	Yes	No
OVER-ALL .....	79	21
Chemists .....	85	15
Ph.D.'s .....	83	17
Supervisors .....	82	18
Affiliates .....	81	19
U.S. refineries .....	71	29
Chem. E.'s .....	77	23
Non-Chem.'s .....	56	44

Table IV shows the answers to the basic question "Would these experimental bulletins be more useful to you than the present ones?" All groups favored the new bulletins rather strongly.

These findings confirmed a 1956-survey answer to the question: "Should the bulletins be divided into several sections such as petroleum processing, chemicals, and specialty products, combining literature and patents in each section?" With 404 people voting, the response was 69% "Yes."

In the 1959 study, the question also was asked: "Would further subdivision -- publishing more bulletins -- be more useful?" "Petroleum Processes," "Petroleum Products," "Polymers," "Other Chemicals," and "Engineering" were listed as possible titles. Apparently this was going too far, for the over-all vote was 75% "No." Little difference in opinion could be noted among divisions of the audience; even engineering-divisions people, who would not be better served by the proposed lesser split, voted 80%

against a subdivision that would have yielded an "Engineering" bulletin.

The questionnaire itself probably went too far by providing too many alternate answers to the question: "To you, personally, is the broader coverage: thought-provoking, valuable, necessary, unnecessary, too broad?" If one groups "thought-provoking, valuable, and necessary"

TABLE V

To you, personally, is the (idea of) broader coverage:

	(Per Cent)	
	Good	Poor
OVER-ALL .....	79	22
Ph.D.'s .....	84	16
Affiliates .....	79	21
U.S. refineries .....	78	22
Supervisors .....	78	22

answers under the heading, "a good idea," and "unnecessary" and "too broad" under "a poor idea," the results are as shown in Table V. Obviously, readers want the broader coverage.

A separate reading was sought on possible distaste for the concomitant increased length of the bulletins — about 35 pages each, compared to about 20 pages in the present ones. This answer was foolishly asked for in terms of: "desirable," "of no concern," and "undesirable," although why anyone would want greater length for its own sake is now hard to see. Respondents must have charitably related this to "greater coverage," for many voted for it — twice as many as for "undesirable," actually. If one groups "desirable" answers with those for "of no concern," however, an over-all "greater length won't bother us" vote of 79% may be obtained, almost identical to the favorable vote for greater coverage. Supervisors and U. S. refinery people were the ones liking the idea least, but even they voted only 25% and 29% against this automatic feature of the new bulletins.

A separate answer also was desired on the "Analysis and Instrumentation" bulletin idea, so readers were asked: "Is the idea of a separate, expanded bulletin on 'Analysis and Instrumentation,' eliminating coverage in the other bulletins: desirable, undesirable, no opinion?" The underlining was included to call attention to what some deemed an undesirable feature. Respondents apparently either didn't care about this or saw it as an undiluted advantage, for the "desirable" vote, over-all, was nearly five times as great as the "undesirable" vote (57%, against 12%), and 31% of the respondents had "no opinion" or didn't vote at all. Subgroups of the audience were remarkably in agreement.

Respondents had thus given some rather clear answers that may have general significance:

1. Research scientists and engineers like the idea of specific-field abstract bulletins for a few major subdivisions of company endeavors, where these are reasonably distinct, but do not want deeper fragmentation into bulletins that separate products from processes, etc.

2. Research scientists and engineers also like the idea of specific-field abstract bulletins for peripheral fields such as "analysis and instrumentation" (and, previously, "applied mathematics" and "transportation and storage"). Those who work in these special areas like the sharp focus and increased coverage. Those who do not need the information apparently welcome the absence from the main bulletins of the abstracts on the subject involved.

3. Research scientists and engineers want good coverage of their subjects, and do not seem perturbed if this means somewhat longer bulletins or the need to read more than one bulletin.

Since getting this information, publication has been initiated of a monthly "Analysis and Instrumentation" bulletin — started in July, 1960. Plans for separate bulletins on "petroleum" and "petrochemicals" are still a part of the Technical Information Division's long-range program. If and when these are published, however, it is possible that patent abstracts will not be included with those of the literature. Economics will then have to be carefully balanced against incremental reader benefits, since after this year the "Manufacturing Patents" bulletin will have been largely replaced by direct distribution of the American Petroleum Institute's forthcoming new bulletin, "API Abstracts of Refining Patents."

## ABSTRACTS vs. LISTINGS

The last-mentioned questionnaire also asked: "What percentage of the items in these bulletins would be satisfactory to you if only titles and authors were reported?" Some Company people had wondered whether it was always necessary (not to mention economic) to prepare comprehensive abstracts whenever possible.

Human nature militates against people voluntarily asking for less than what they're already receiving unless it is actually in the way. Apparently, the text of the abstracts is not much in the way, or so the results shown in Table VI would seem to indicate. Moreover, in an extensive 1956 survey, bulletin readers had answered 66% "No" to the question: "Would you like shorter abstracts describing the scope of the article but omitting data?" and 85% "No" to: "Would annotated titles and references only be easier and faster to scan, and yet be as useful to you as a guide to the literature?"

All of these votes, past and present, show a strong preference for comprehensive abstracts.

## CONCLUSIONS

Quite a number of subjects have been touched on in this paper, primarily because they affect the use of abstract bulletins by readers and thus make it important to know their reactions. It has been found that:

TABLE VI

What % of title-author listings would be satisfactory to you?  
(instead of comprehensive abstracts)

	0%	1-20%	21-40%	Above 40%
OVER-ALL . . . . .	45	23	7	26
Ph.D.'s . . . . .	41	24	5	29
Affiliates . . . . .	47	24	6	24
U.S. refineries . . . . .	32	16	20	32
Supervisors . . . . .	46	20	7	27

1. Topical-sentence-first (news-type) abstracts are enthusiastically preferred to source-oriented (conventional) abstracts by a large, heterogeneous chemical-research audience of abstract-bulletin readers.

2. Highlight pages are useful to abstract-bulletin readers and, as single-sheet bulletins, to audiences (such as management) that will not look at entire bulletins.

3. Research scientists and engineers like the idea of specific-field abstract bulletins for a few major subdivisions of company endeavors, where these are reasonably distinct, but do not want deeper fragmentation into bulletins that separate products from processes, etc.

4. Research scientists and engineers also like the idea of specific-field abstract bulletins for peripheral fields such as analysis and instrumentation, applied mathematics, and transportation and storage. Those who work in these special areas like the sharp focus and increased coverage. Those who do not need the information apparently welcome the absence from the main bulletins of the abstracts on the subjects involved.

5. Research scientists and engineers want good coverage of their subjects, and do not seem perturbed if this means somewhat longer bulletins or the need to read more than one bulletin.

6. Bulletin readers accustomed to informative abstracts strongly prefer them to simple or annotated bibliographical listings.

Much can be learned from surveys of abstract-publication readers, as major secondary journals such as Chemical Abstracts have reported.<sup>1</sup> Esso Research is looking forward to making its bulletins more useful to their readers by applying what it already has learned about their needs and by continuing to learn more about them.

#### REFERENCES

- <sup>1</sup>Heumann, K. F., "Chemical Abstracts Looks at its Users," paper presented before the Division of Chemical Literature of the American Chemical Society, Boston, April, 1959.
- <sup>2</sup>Weil, B. H., Schoengold, M. D., and Mento, M. A., "Publishing Modern Abstract Bulletins," paper presented before the Division of Chemical Literature of the American Chemical Society, Pittsburgh, January, 1958; published as part of Chapter Six in Weil, B. H. (Ed.), "Technical Editing," Reinhold Publishing Corporation, New York, N. Y., 1958. Contains a pertinent bibliography not duplicated in this paper.
- <sup>3</sup>Weil, B. H., "Technical Abstracts—Still An Effective Communication Medium," paper presented before the Southeastern Michigan Chapter of the Society of Technical Writers and Publishers, Detroit, Michigan, January 30, 1960.