

# LETTERS

## Technical Reports

The material of Burton and Green ["Technical Reports in Physics Literature", by R. E. Burton and B. A. Green, Jr., *Physics Today*, October 1961, p. 35] was found of considerable interest. The following information may be helpful to the readers of their paper:

1. Figure 1 bears a striking similarity to one phase of an independent earlier study.<sup>1</sup> Figure 3 of the earlier publication also shows that the peak of the curve representing the number of references obtained from papers as a function of their publication dates corresponds to two years back from the year of search. In an extension of the work,<sup>2</sup> 24 621 publications in the field of thermophysical properties were investigated, and part of the pertinent data are presented in the figure given below. This also confirms the

fact that the maximum number of cited references occur at about two years back from the search year. An exponential function for the variation of the number of references appearing in papers as a function of their publication dates was also suggested. One may observe from the figure that this function is distorted during the war years.

2. The authors think that the primary reason why reports are not cited more frequently is the presumption that either the material will be published (in the case of a recent report) or that the material is not overly important (in the case of older reports). Often, we have found that reports contain valuable information condensed out of published papers for economy of space reasons.

3. One of us has published a series of literature surveys of recent publications dealing with the three principle transport properties (viscosity, thermal conductivity, and diffusion) of gases and gas mixtures.<sup>3</sup> Of a total of 1810 references reviewed, 319 of these were reports, i.e., 18%. No reports were included in the count where journal publication had been noted, although many such reports were known to exist and in some cases were cited in the surveys along with the journal references. The frequency with which the various laboratories have contributed to these reports can be found by inspection of the references cited.<sup>3</sup>

4. For further information concerning the time lag between publication and citation of reports, duplication of coverage by abstracting journals and similar materials, the reader is referred to (2).

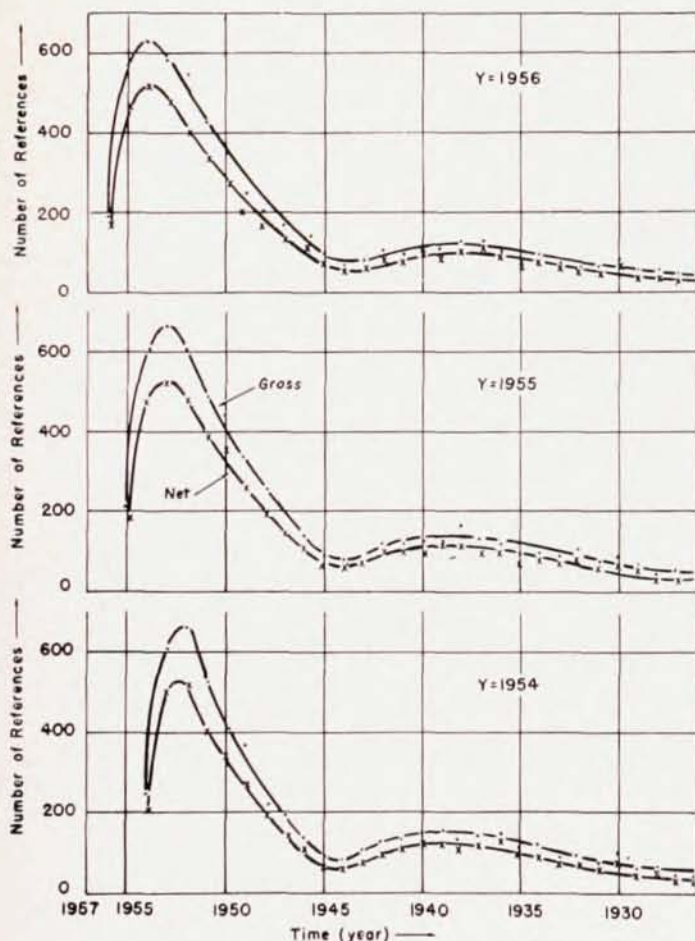
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## References

1. Lykoudis, P. S., Liley, P. E., and Touloukian, Y. S., Proc. Int. Conf. Sci. Information, NAS-NRC, Washington, D. C., Nov. 1958 (publ. 1959).
2. Cezairliyan, A. O., Lykoudis, P. S., Touloukian, Y. S., Analytical and Experimental Study of a Method for Literature Search in Abstracting Journals, Purdue University, TPRC Report 11 (1959). Available from the Office of Technical Services, US Dept. of Commerce, PB 171478.
3. Liley, P. E., "Thermodynamic and Transport Properties of Gases, Liquids and Solids", ASME, N. Y., 1959, p. 40; Purdue University TPRC Reports 10 (1959); 12 (1961); 13 (1961), to be published.

## Information Retrieval

Drs. Way, Gove, and van Lieshout in their article on scientific information tools (*Physics Today*, February 1962, pp. 22-27) asked a question that compelled me to answer. They make the statement that compilations are often extremely difficult to locate and cite



Distribution by publication date of useful gross and useful net number of references obtained from papers published in the years 1954, 1955, and 1956.