

# ASPECTS OF CORROSION FROM THE ELECTROCHEMICAL SOCIETY PUBLICATIONS

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The role of corrosion in The Electrochemical Society over her last 100 years is being reviewed from the viewpoint of papers in its peer-reviewed publications and the role of research scientists and instrumentation.

The early history of the Corrosion Division was published in 1952 during the Fiftieth Anniversary by Copson [1] giving the background of the Division, the major corrosion symposia, The publication of the *Corrosion Handbook* in 1948 and the formation of the National Association of Corrosion Engineers in 1945. The Seventy-fifth Anniversary was marked with a paper by Uhlig that gives a view of the advances in corrosion between 1952 and 1977 [2].

An analysis was conducted on papers from the *Transaction of the Electrochemical Society* (from 1902 until 1949), the *Journal of the Electrochemical Society* (from 1949 to the present), *Electrochemical Technology* (from 1963 until 1968), and most recently *Electrochemical and Solid-State Letters* (from 1998.) The number of publications related to corrosion, (including passivation and anodic oxide films) has remained surprisingly steady over the last 100 years relative to the total number of papers published. The average number of corrosion papers is 10 %. Figure 1 shows a plot of the fraction of corrosion papers over the last 100 years. In general the number of papers published has increased steadily with time since the end of World War II, and the fraction of corrosion papers has remained relatively constant. Distinct deviations from the general trend for example between 1948 and 1968, and the low fraction of papers in *Letters* will be discussed.

Research scientists, instrumentation and techniques have played a major role in the directions of corrosion research and analysis. The major awards of the Society, the Edward Goodrich Acheson and the Olin Palladium Awards identify the contributions of the important scientists in the fields of corrosion. A second approach evolves from the impact of specific publications in the *Journal* have had on corrosion research.

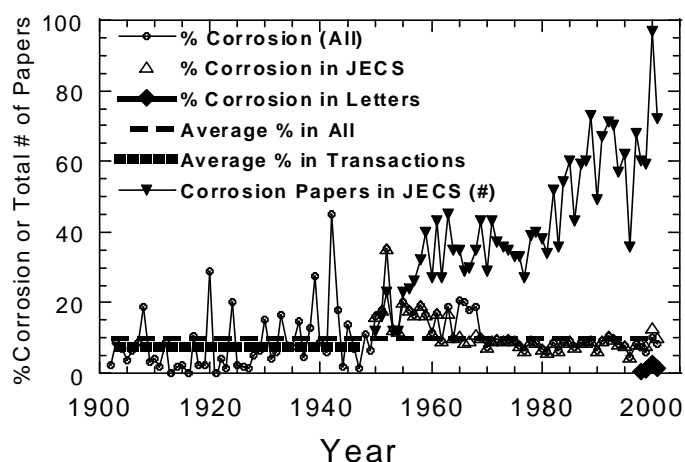
It is difficult to predict the role of instrumentation on the future progress of corrosion at the present time because of the rapid introduction of many new devices. However, an attempt will be made to identify the history some established techniques and their impact on the direction of research, particularly, the potentiostat.

## ACKNOWLEDGMENT

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## REFERENCES

1. H. R. Copson, *J. Electrochem Soc.*, **99**, 273C (1952).
2. H. H. Uhlig, *J. Electrochem Soc.*, **125**, 58C (1978).



**Figure 1.** The proportion of corrosion papers in all peer-reviewed publications of The Electrochemical Society over the last 100 years, and in the *Journal* and *Letters* alone. Also shown is the average for all years, the average for the *Transactions* and the number of corrosion papers published in the *Journal* since its inception.