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## Discussion

## Reply to "Comments to the early history of gas chromatographic methods for oil analysis" by L.S. Ettre

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We thank Dr. Ettre for his thorough reading of our recent review paper, *Gas chromatographic methods* for oil analysis, and his valuable comments and criticisms. We do, however, feel the need for some additional remarks.

It was definitely not the purpose of our paper to give an exhaustive review of the early developments. Rather, the paper was written from the viewpoint of petrochemical needs and therefore briefly addressed three developments that were of immediate impact on the practical application and implementation of gas chromatography in the petrochemical industry.

We regret that Dr. Ettre has misinterpreted our use of the quote of the prediction made by A.J.P. Martin so as to mean to give him credit for the invention of open tubular columns. All readers of the *Journal of Chromatography* will know that it was, without any doubt, M.J.E. Golay who invented the open tubular columns. This was an impressive achievement from

which we all benefit today. Sadly, for non-technical reasons, the acceptance of this invention for general usage was delayed for many years. Anyway, the work of Golay does not detract from the value of the prediction made by Martin.

It is certainly true, that the plate-number concept was first described by A.J.P. Martin and R.L.M. Synge in their fundamental 1941 paper. It was J.J. van Deemter, however, who further developed this concept and made it into a theory which described the band broadening effects of packed-column chromatography, thereby converting the concept into a practically useful tool.

Finally, we again express our appreciation for Dr. Ettre's interest in our review paper. The exchange of information and opinions is a major stimulus for all participants, both when carrying out their experimental work and when writing up and discussing the results.

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