

Preliminary communication

A COMMENT ON A QUANTITATIVE ACCOUNT OF HYPERCONJUGATION IN ALLYL AND BENZYL COMPOUNDS OF GROUP IVB

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I recently published in this journal a theoretical analysis of the influence of hyperconjugation on the properties of Group IV metal compounds [1]. In a communication which has since appeared, Schweig et al. [2] state that my paper was based largely on their own earlier results and discussions [3]. In the interests of accuracy I must correct this statement, and point out the following.

My paper, written during 1972 and dealing with $\sigma-n$ and $\sigma-\sigma$ conjugation as well as $\sigma-\pi$ conjugation, was a logical amplification of concepts which I had presented in earlier publications. Three of these publications [4] appeared prior to Schweig's first communication of the subject [3]. The experimental properties which were discussed in my paper were obtained from the earlier work of many different laboratories [cited in ref. 1] and not, as stated, largely from Schweig's publications, which have been restricted to PE spectroscopy.

The stimulus for my paper should be more correctly attributed to the experimental studies of Eaborn [5] and Traylor [6] and their coworkers, who proposed and elaborated the concept of metallohyperconjugation. The use of perturbational MO theory to analyse hyperconjugation and its effects is not new, and largely originates with Dewar's and Mulliken's work on organic systems [7,8].

References

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