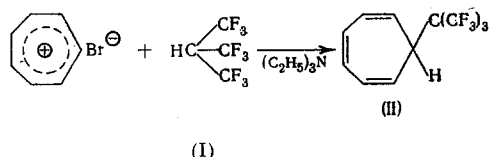


It was earlier demonstrated that the use of triethylamine as a basic catalyst permits the use of the proton mobility of the hydrogen atom in 2-monohydroperfluoroisobutane (I) for synthetic purposes. In particular, we succeeded in carrying out the Michael reaction with this compound [1].

It was found that 2-monohydroperfluoroisobutane in the presence of triethylamine is also capable of participating in other reactions, characteristic of compounds of a labile hydrogen, for example, in reactions of tropylation (cf. [2]). In the reaction of 2-monohydroperfluoroisobutane with tropylium bromide in the presence of triethylamine



7-(perfluoro-tert-butyl)cycloheptatriene is formed (II). It may be that the tropylating agent in this reaction is not the tropylium cation, but the corresponding quaternary ammonium salt.

A mixture of 1.45 g of tropylium bromide, 4.25 g (I), and 2.16 g triethylamine was shaken in a sealed ampule for 3 h; after a day it was acidified with dilute HCl, and extracted with n-pentane. After drying with MgSO<sub>4</sub>, 1.4 g (53% of the theoretical) 7-(perfluoro-tert-butyl)cycloheptatriene was obtained by distillation; b.p. 63° (27 mm); n<sub>D</sub><sup>21</sup> 1.3980. Found %: C 42.59; H 2.40; F 54.32. C<sub>11</sub>H<sub>7</sub>F<sub>9</sub>. Calculated %: C 42.59; H 2.28; F 55.12. λ<sub>max</sub> 248 mμ (in heptane). The NMR spectrum of the protons of (II) differs little from the spectrum of unsubstituted cycloheptatriene; only the signal in a strong field (δ 2.02; triplet) corresponds to one proton, and not to two (according to the results of integration).

## LITERATURE CITED

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2. M. E. Vol'pin, I. S. Akhrem, and D. N. Kursanov, *Izv. AN SSSR. Otd. Khim. N.*, **1957**, 1501.

All abbreviations of periodicals in the above bibliography are letter-by-letter transliterations of the abbreviations as given in the original Russian journal. *Some or all of this periodical literature may well be available in English translation.* A complete list of the cover-to-cover English translations appears at the back of the first issue of this year.