FORMATION AND NITRATION HEATS FOR 3-NITRO-4-CHLORO- AND 3,5-DINITRO-4-CHLORO-BENZOTRIFLUORIDE. DINITRATION REACTION INVESTIGATION

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Although various authors have determined the heats of combustion of many halogen derivatives we still do not have at our disposal data concerning the 3-nitro-4-chlorobenzotrifluoride and the 3,5-dinitro-4-chlorobenzotrifluoride.

The object of this study has been that of determining the thermochemical constants for the above mentioned compounds. The values of the heats of combustion and of formation have been determined experimentally and from them the heats of nitration. These data and those determined with Handrick's method (group's energy contribution) have been compared with the heats of reaction carrying the nitration into an adiabatic system.

Afterwards it has been investigated how to get the maximum output for the dinitro production. Data and considerations are reported.