

P3

DETERMINATION OF THE RATE CONSTANTS FOR THE
COMBINATION REACTIONS OF CF_3 AND C_2F_5 RADICALS USING
THE RADICAL BUFFER METHOD

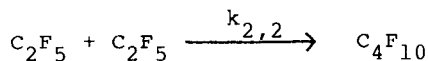
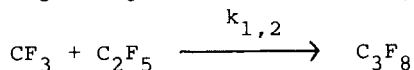
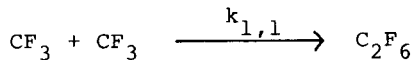
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Using the radical buffer method [1] the rate constant ratios $k_{1,1}/k_{2,2}$ and $k_{1,1}/k_{1,2}$ have been determined over the temperature range 189-380°C .



The rate constant ratios were found to be independent of temperature. Use of published data for $k_{1,1}$ leads to values of $k_{1,2}$ and $k_{2,2}$ to be $10^{12.83}$ and $10^{11.96, 13} \text{ cm}^3 \text{ mole}^{-1} \text{ s}^{-1}$ respectively.

1. R. Hiatt and S.W. Benson, J. Am. Chem. Soc., 94, 25 (1972).