## A NEW SYNTHESIS OF N-CONTAINING PERFLUOROOLEFINS

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The pyrolytic reaction of four types of N-containing perfluorocarboxylic acids, which leads to the formation of many new or previously difficult to obtain fluoroethenes and -propenes, is described.

$$\left[\left(R_{f}\right)_{2}N^{-};\;\left(CF_{3}\right)_{2}N^{-},\;\left(C_{2}F_{5}\right)_{2}N^{-},\;\left(\stackrel{F}{\text{N-}}\right)_{0}F_{N^{-}},\;\left(\stackrel{F}{\text{F}}N^{-}\right)_{0}F_{N^{-}},\;\left(\stackrel{F}{\text{F}}N^{-}\right)_{0}F_{N^{-}}\right]\right]$$

For example, a mixture of three isomeric perfluoropropenylamines were obtained in good yields from K salt of 3.

While, the pyrolysis of K salt of  $\underline{4}$  resulted in the formation of a new series of perfluoro(2-dialkylamino-l-propene) as major products. Continuous-flow method which consists of passing the corresponding acid fluorides of  $\underline{1}$  and  $\underline{3}$  over the fillers ( $K_2^{CO}_3$ ,  $Na_2^{CO}_3$ ,  $CaCO_3$  etc) in the tubular reactor was also conducted. The dependence of the composition of three isomeric products from  $\underline{3}$  on the kinds of metal salts (Li, Na, K, Rb, Cs; Mg, Ca), and reaction conditions (fillers, S.V. of acid fluorides, Temp) will be discussed also.