

## O16

STUDIES ON DIRECT FLUORINATION OF STERICALLY HINDERED  
METHYL, ETHYL AND PROPYLENE GROUPS

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The action of elemental fluorine on fluorohydrocarbons  $R_FCH_3$ ,  $R_FCH_2CH_3$  and  $R_FCH_2CH_2CH_2R_{F'}$ , where  $R_F = CF_3CF_2CF_2(CF_3)_2C-$  and  $R_{F'} = (CF_3)_2CF-$ , was investigated. The reactions were monitored by the GLC. Numerous products of a stepwise substitution of fluorines for hydrogen atoms were isolated and identified by means of the high resolution  $^1H$  and  $^{19}F$  NMR spectroscopy. The  $CH_3$  group in compound  $R_FCH_3$  has shown remarkable inertness towards elemental fluorine. The substitution pathways for other compounds investigated have been elucidated.