ALKYLTHIODERIVATIVES AND SULFONIC ACIDS OF FLUORO NAPHTHALINES

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Nucleophilic substitution of fluorine by thiolat anion in octafluoro naphthaline yielded the series of compounds ${\rm C_{10}F_{8-n}(SR)_n;} \ \, (n = 1,2,4,5,6,8); \ \, (R = {\rm C_2H_5,} \ \, i - {\rm C_3H_8}; \\ t - {\rm C_4H_9}; \ \, {\rm C_6H_5CH_2}) \, .$

Reductive fragmentation by Na in HMPA converts Polyfluoropoly (alkylthio) naphthalenes into polymercapto naphthalenes, which on oxidation give a series of naphthalene polysulfonic acids ${\rm C}_{10}{\rm H}_{8-n}({\rm SO}_3{\rm H})_n; \ (n \le 6).$

$$c_{10}F_{8-n}(SR)_{n} \xrightarrow{Red.} c_{10}H_{m}(SH)_{n} \xrightarrow{Ox.} c_{10}H_{m}(SO_{3}H)_{n}$$

Hydrogenation of $C_{10}F_{8-n}(SR)n$ compounds on Raney nickel gives the corresponding $C_{10}H_nF_{8-n}$ compounds. These are new educts for the preporation of $C_{10}H_n(SR)_{8-n}$; $C_{10}H_n(SH)_{8-n}$ and $C_{10}H_n(SO_3H)_{8-n}$ compounds.