

SYNTHESIS OF POTENTIAL ANTI-CANCER AGENTS.

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Considerable quantity of research work have been done in the field of heterocyclic nitrogen mustards because of their anticancer and anti-leukemic properties. N-methyl nitrogen mustards have been used in

Hodgkin's disease, certain leukemia and carcinoma of breast and lungs. Aryl N,N-di-2-chloroethyl derivatives were found to inhibit the growth of various animal tumours. First heterocyclic uracil nitrogen mustard of potential anticancerous activity was synthesized by Baker et al. The half mustard such as $\text{Ar.N(SO}_2\text{R)CH}_2\text{CH}_2\text{Cl}$ has ~~been~~ shown some promise in clinical trial by its unequivocal anticancer activity. 5-fluorouracil was reported to show some effect on solid tumours but it was toxic. Phthalazones are physiologically active and its nitrogen mustards may not be toxic. Hence we decided to introduce monofunctional and bifunctional nitrogen mustard groups at 2-and 4-positions of phthalaz-1,4-dione. A number of such nitrogen mustards have been synthesized in our laboratory and their anticancerous property are under investigations.