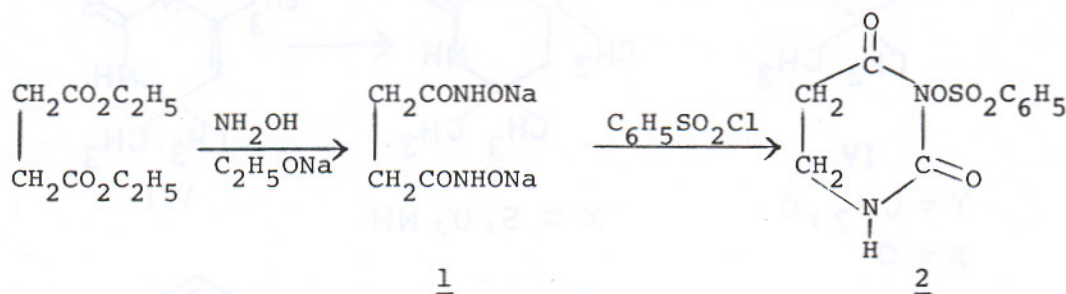


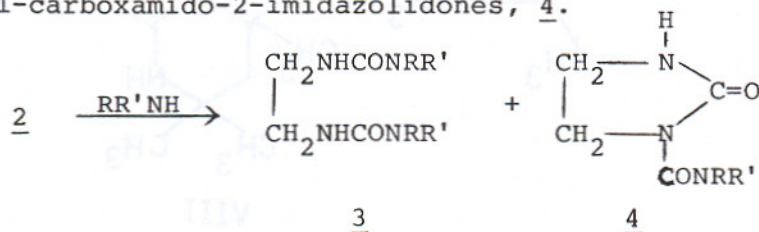
Amine-Induced Lossen Rearrangements of
3-Hydroxy-5,6-dihydrouracil and
N-Hydroxysuccinimide Benzenesulfonates

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Under different conditions, the reaction of ethyl succinate with hydroxylamine, in the presence of sodium ethoxide, produced either sodium succinohydroxamate, 1, or sodium N-hydroxysuccinimide, 5, as the major product. In one step, benzenesulfonyl chloride converted 1 to 3-benzenesulfonyloxy-5,6-dihydrouracil, 2.



The reactions of 2 with ammonia, aniline, *t*-butylamine and piperidine produced a mixture of 1,2-bis(ureido)ethanes, 3, and 1-carboxamido-2-imidazolidones, 4.



where $\text{R} = \text{R}' = \text{H}$; $\text{R} = \text{H}$, $\text{R}' = \text{C}_6\text{H}_5$; $\text{R} = \text{H}$, $\text{R}' = \text{t-C}_4\text{H}_9$;
 $\text{R} = \text{R}' = (\text{CH}_2)_5$.

Acylation of 5 with benzenesulfonyl chloride afforded N-benzenesulfonyloxysuccinimide, 6. A Lossen degradation of 6 with either aniline or t-butylamine furnished β -ureidopropionamides, 7, ($R = C_6H_5$ or t-C₄H₉).

