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SOURCE

Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE IVANOVO INSTITUTE OF CHEMICAL TECHNOLOGY USSR (II)

"Synthesis of N-(2-naphthyl)nitroamines,"  
V. F. Borodkin and S. I. Burmistrov (Ivanovo Chem Tech Inst)

"Zhur Obshch Khim" Vol 17, 1947, pp 63-6

Nitroamines were reacted with 2-naphthol as follows: 2-naphthol and the nitroamine in a 1:2.5 molecular ratio were heated to 160-30° and treated with 0.5 molecular nitroamine-HCl; heating was continued until HCl evolution ceased. Cooled mass was exhaustively extracted with Et<sub>2</sub>O; the extract was washed with 10% NaOH, then 10% HCl; evaporation of the Et<sub>2</sub>O gave the product. Only nitroamines having a meta configuration of the NO<sub>2</sub> and NH<sub>2</sub> groups give satisfactory yields of the secondary amines. Increase of the molecular ratio of nitroamine to the naphthol favors the yield of the secondary amine, with best results at about 1:3 molecular ratio.

"Sulfonating by Salts of Sulfurous Acid: XII. Action of Some Derivatives of Sulfurous Acid on Aniline,"  
S. V. Bogdanov and N. N. Karandasheva (Ivanovo Chem Tech Inst)

"Zhur Obshch Khim" Vol 17, 1947, pp 87-94

PhNH<sub>2</sub> can be sulfonated by K<sub>2</sub>SO<sub>3</sub>·2H<sub>2</sub>O; HON(SO<sub>3</sub>K)<sub>2</sub> and H<sub>2</sub>Na sulfite. Synthesis procedures with each described.

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"Benzyl 2- and 4-methoxy-1-naphthyl Ketones and Phenyl 2- and 4-methoxy-1-naphthyl Diketones," S. I. Burmistrov and E. A. Shilov (Ivanovo Chem Tech Inst)

"Zhur Obshch Khim" Vol 17, 1947, pp 1684-7

$\text{PhCH}_2\text{CO}_2\text{H}$  was heated on a steam bath with  $\text{PCl}_3$ , the cooled mixture treated with  $\text{CS}_2$ , and the solution gradually added with ice-cooling to  $\text{AlCl}_3$  suspended in  $\text{CS}_2$ , containing  $1\text{-MeOC}_{10}\text{H}_7$ ; mixture then decomposed with ice and organic layer distilled with steam. Residue was heated with soda solution and the insoluble matter, on crystallization from  $\text{EtOH}$ , gave benzyl 4-methoxy-1-naphthyl ketone and its picrate. This heated with  $\text{SeO}_2$  in  $\text{Ac}_2\text{O}$  gave Ph 4-methoxy-1-naphthyl diketone; this gives a quinoxaline on heating with ortho- $\text{C}_6\text{H}_4(\text{NH}_2)_2$ , while oxidation with  $\text{H}_2\text{O}_2$  in aqueous pyridine gave  $\text{BzOH}$  and 4-methoxy-1-naphthoic acid. Latter acid treated with  $\text{SOCl}_2$ , then  $\text{PhNH}_2$ , gave the anilide. Diketone heated with ortho- $\text{C}_6\text{H}_4(\text{NH}_2)_2$  in pyridine and several drops of concentrated  $\text{HCl}$ , gave 2-phenyl-3-(4-methoxy-1-naphthyl)-quinoxaline. Reaction of  $\text{PhCH}_2\text{COCl}$  with  $\text{MeOC}_{10}\text{H}_7$  similarly give benzyl 2-methoxy-1-naphthyl ketone. Ketone on oxidation with  $\text{SeO}_2$  gave phenyl 2-methoxy-1-naphthyl diketone, which gives a red color with  $\text{Na}$  in  $\text{EtOH}$  solution, the color vanishing on shaking, then reappearing; oxidation gave 2-methoxy-1-naphthoic acid.

"The Mechanism of Hydrolysis of Chlorine," E. A. Shilov and S. N. Solodushenkov (Ivanovo Chem Tech Inst)

"Zhur Fiz Khim" Vol 21, 1947, pp 1159-61

Contrary to Morris the hydrolysis of  $\text{Cl}$  in water cannot be due to reaction with  $\text{OH}$  ions because reaction constant increases during an experiment although the  $\text{OH}$  concentration decreases.

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