

Name	Formula	M. p., °C. (uncor.)	Nitrogen, %	
			Calcd.	Found
N-(2,4-Xylyl)-propionamide	$C_2H_5CONHC_6H_3(CH_3)_2$	137-137.5	7.90	7.88
N-(2,5-Xylyl)-propionamide	$C_2H_5CONHC_6H_3(CH_3)_2$	138	7.90	7.95
N-(2,6-Xylyl)-propionamide	$C_2H_5CONHC_6H_3(CH_3)_2$	115.5-116.5	7.90	7.52
N-Xenyl propionamide	$C_2H_5CONHC_8H_4C_6H_5$	176 -177	6.22	6.36
N-Benzylauramide	$C_{11}H_{23}CONHCH_2C_6H_5$	82 -82.5	4.84	4.87
<i>m</i> -Laurotoluide	$C_{11}H_{23}CONHC_6H_4CH_3$	54 - 56	4.84	4.76
N-Cyclohexylpalmitamide	$C_{16}H_{31}CONHC_6H_{11}$	94 - 95	4.15	4.24
N-Benzylpalmitamide	$C_{16}H_{31}CONHCH_2C_6H_5$	94.5- 95	4.05	3.94
<i>o</i> -Palmitotoluide	$C_{16}H_{31}CONHC_6H_4CH_3$	90 - 91	4.05	3.97
<i>m</i> -Palmitotoluide	$C_{16}H_{31}CONHC_6H_4CH_3$	74.5- 75.5	4.05	4.08
N-Cyclohexyl-2-furamide	$(C_4H_3O)CONHC_6H_{11}$	112 -112.5	7.25	7.45
N-Benzyl-2-furamide	$(C_4H_3O)CONHCH_2C_6H_5$	110.5-111	6.86	6.97
N-(2,4-Xylyl)-2-furamide	$(C_4H_3O)CONHC_6H_3(CH_3)_2$	104 -105	6.51	6.51
N-(2,5-Xylyl)-2-furamide	$(C_4H_3O)CONHC_6H_3(CH_3)_2$	89 - 90	6.51	6.33
N-(2,6-Xylyl)-2-furamide	$(C_4H_3O)CONHC_6H_3(CH_3)_2$	125 -126	6.51	6.43
N-1-Naphthyl-2-furamide	$(C_4H_3O)CONHC_{10}H_7$	155 -156	5.91	5.92
N-2-Naphthyl-2-furamide	$(C_4H_3O)CONHC_{10}H_7$	152 -153	5.91	5.87
N-2-Fluoryl-2-furamide	$(C_4H_3O)CONHC_8H_9$	201 -201.5	5.07	5.07
N-Xenyl-2-furamide	$(C_4H_3O)CONHC_8H_4C_6H_5$	171 -172	5.62	5.48

tain compounds that are not described in the literature. The entomological results will be published elsewhere.

The lauramides, palmitamides, and furamides were prepared from the respective acid chlorides and the appropriate amines. Since these amides were insoluble in water, they were separated from the amine hydrochlorides by washing with water. The propionamides were obtained by refluxing the amine and propionic acid for several hours.

These compounds, with their melting points and nitrogen analyses, are listed in the table.

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#### *p*-CYCLOHEXYLBENZOPHENONE AND OXIME

Sixteen grams of phenylcyclohexane and 14 g. of benzoyl chloride were dissolved in 70 ml. of dry carbon disulfide and 12 g. of anhydrous aluminum chloride was added slowly over a fifteen minute period. A very vigorous reaction ensued with copious evolution of hydrogen chloride. After this the mixture was heated on a water-bath for one hour and then washed with water. It was now refluxed with excess 10% sodium hydroxide solution for one hour to hydrolyze any unreacted benzoyl chloride. The carbon disulfide solution was then washed and dried over anhydrous calcium chloride. The solvent was distilled off and

the residual oil vacuum distilled. A colorless, refractive liquid was obtained boiling at 195-200° at 3 mm. pressure. This material on standing a few weeks turned to a crystalline white mass: melting point, 58-60°; yield, 10 g. (40%).

*Anal.* Calcd. for  $C_{19}H_{20}O$ : C, 86.36; H, 7.58. Found: C, 85.71; H, 7.85.

Determination of structure was accomplished after the method of Mayes and Turner<sup>1</sup> by oxidation with sodium dichromate in the presence of sulfuric acid. The acid obtained was isolated in practically quantitative yield: melting point, 193-195°. It is hence *p*-benzoylbenzoic acid and this establishes beyond a doubt that the ketone is *p*-cyclohexylbenzophenone.

*Oxime.*—The oxime was prepared by the method of Shriner and Fuson<sup>2</sup> with the exception that sodium acetate was substituted for sodium hydroxide. It was obtained as white needles which were recrystallized from dilute alcohol; melting point, 125-127°.

*Anal.* Calcd. for  $C_{19}H_{21}ON$ : N, 5.03. Found: N, 5.30.

(1) Mayes and Turner, *J. Chem. Soc.*, 500 (1929).  
(2) Shriner and Fuson, "Identification of Organic Compounds," John Wiley and Sons, New York, N. Y., 1935, p. 145.

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