

## SYNTHESIS OF 1-AROYL- 3,4-DIHYDROISOQUINOLINES

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While continuing investigations on the Ritter reaction for the synthesis of isoquinolines we discovered that carbinols **1a,b** are cyclized with aryl cyanides with the formation of the corresponding ketones **2a,b**.

The synthesis was effected by the procedure of [1]. The obtained ketones **2a,b** may be considered as potential synthons and biologically active compounds.



1, 2 a R = H; 1, 2 b R = MeO; 2a Ar = Ph, b Ar = (o)lyl

**1-Benzoyl-3,3-dimethyl-3,4-dihydroisoquinoline (2a).** Yield 82%; mp 59-60°C (pentane). <sup>1</sup>H NMR spectrum (CDCl<sub>3</sub>): 1.20 (6H, s, 2CH<sub>3</sub>); 2.76 (2H, s, CH<sub>2</sub>); 6.90-8.13 ppm (9H, m, H<sub>aromatic</sub>). IR spectrum, cm<sup>-1</sup>: 1670, 1610 (C=O, C=N). Found, %: C 82.0; H 6.4; N 5.4. C<sub>18</sub>H<sub>17</sub>NO. Calculated, %: C 82.1; H 6.5; N 5.3.

**6,7-Dimethoxy-3,3-dimethyl-1-(o-tolyl)-3,4-dihydroisoquinoline (2b).** Yield 81%; mp of hydrochloride 204-205°C (acetonitrile). <sup>1</sup>H NMR spectrum of the base (CDCl<sub>3</sub>): 1.33 (6H, s, 2CH<sub>3</sub>); 2.15 (3H, s, CH<sub>3</sub>-Ar); 2.87 (2H, s, CH<sub>2</sub>); 3.50 and 3.72 (both s, 2CH<sub>3</sub>O); 6.40 (1H, s, 5-H); 6.62 (1H, s, 8-H); 6.93-7.23 ppm (4H, m, H<sub>aromatic</sub>). IR spectrum, cm<sup>-1</sup>: 1665, 1610 (C=O, C=N). Found, %: C 67.3; H 6.4; N 3.9; Cl 9.1. C<sub>21</sub>H<sub>23</sub>NO<sub>2</sub>·HCl. Calculated, %: C 67.5; H 6.5; N 3.8; Cl 9.2.

## REFERENCES

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