

point is in agreement with the reported value), and 1-acetoxycyclohexanecarboxylic acid anilide with mp 130-132° (purified by chromatography on Al<sub>2</sub>O<sub>3</sub> in CHCl<sub>3</sub>). IR spectrum of the latter: 3400, 3280, 1720, 1667, 1609, 1540, and 1510 cm<sup>-1</sup>.

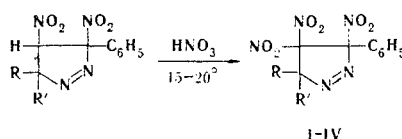
The compositions of the synthesized compounds were confirmed by the results of elementary analysis.

#### SYNTHESIS OF 3,4,4-TRINITRO-Δ<sup>1</sup>-PYRAZOLINES

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UDC 547.772.2'773'778.2.07

We have found that 3,4-dinitro-Δ<sup>1</sup>-pyrazolines with a labile hydrogen atom in the 4 position of the pyrazoline ring are converted to 3,4,4-trinitro-Δ<sup>1</sup>-pyrazolines (I-IV) when they are treated with nitric acid (sp. gr. 1.51) at 15-20° for 5-10 h. The products slowly decompose at 20-25° with the evolution of nitrogen oxides to give resinous products. The PMR spectra of I-IV do not contain the signal of a CH group.



I R = R' = C<sub>6</sub>H<sub>5</sub>; II R and R' = diphenylene; III R = C<sub>6</sub>H<sub>5</sub>, R' = *p*-BrC<sub>6</sub>H<sub>4</sub>;

IV R = CH<sub>3</sub>, R' = *p*-NO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>

The following compounds were obtained: I, mp 72°, 97% yield; II, mp 116°, 91% yield; III, mp 79°, 93% yield; IV, mp 63°, 94% yield. The compounds melt with decomposition. They were purified by reprecipitation from acetone solution by the addition of water.

The results of elementary analysis of I-IV were in agreement with the calculated values.

Perm State Pharmaceutical Institute, Perm 614600. Translated from *Khimiya Geterotsiklicheskikh Soedinenii*, No. 5, p. 703, May, 1977. Original article submitted August 2, 1976.

#### SYNTHESIS OF SUBSTITUTED 6H-DIBENZO[b,d]PYRAN-6-ONE

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UDC 547.814.07:543.422.4'544

We have shown that intramolecular substitution of the *o*-nitro group to give 6H-dibenzo[b,d]pyran-6-one derivatives (IIa-d) occurs when *o*-nitrodiphenylcarboxylic acids (Ia-d) are refluxed in quinoline.

A solution of 0.005 mole of the appropriate acid I was refluxed in 20 ml of quinoline, after which the mixture was cooled and treated with 10% sodium carbonate solution. The sodium carbonate extract was acidified to pH 5 with hydrochloric acid, and the precipitate was removed by filtration, washed with water, and dried to give 6H-dibenzo[b,d]pyran-6-ones II. The following compounds were obtained: (reaction time, yield, and melting point given): IIa,

Scientific-Research Institute of Organic Intermediates and Dyes, Moscow 109388. Translated from *Khimiya Geterotsiklicheskikh Soedinenii*, No. 5, pp. 703-704, May, 1977. Original article submitted December 3, 1976.

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