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### The Reaction of 2-Dialkylamino-4-oxo-5,6-benzo-1,3,2-dioxaphosphorinanes with Pentafluorobenzaldehyde

Irina V. Konovalova<sup>a</sup>; Vladimir F. Mironov<sup>b</sup>; Liliya M. Burnaeva<sup>a</sup>; Sergey V. Romanov<sup>a</sup>; Aidar T. Gubaidullin<sup>b</sup>; Aleksey B. Dobrynin<sup>b</sup>; Igor A. Litvinov<sup>b</sup>; Arkady N. Pudovik<sup>a</sup>

<sup>a</sup> Kazan State University, Russia <sup>b</sup> A. E. Arbusov Institute of Organic and Physical Chemistry, Russian Academy of Sciences, Russia

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## THE REACTION OF 2-DIALKYLAMINO-4-OXO-5,6-BENZO-1,3,2-DIOXAPHOSPHORINANES WITH PENTAFLUOROBENZALDEHYDE

Irina V. Konovalova,<sup>a</sup> Vladimir F. Mironov,<sup>b</sup>

Liliya M. Burnaeva,<sup>a</sup> Sergey V. Romanov,<sup>a</sup>

Aidar T. Gubaidullin,<sup>b</sup>

Aleksey B. Dobrynin,<sup>b</sup> Igor A. Litvinov,<sup>b</sup>

and Arkady N. Pudovik<sup>a</sup>

Kazan State University, Russia<sup>a</sup> and A. E. Arbuzov Institute of Organic and Physical Chemistry, Russian Academy of Sciences, Russia<sup>b</sup>

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It was shown that the interaction of salicylamidophosphites **1** with pentafluorobenzaldehyde unexpectedly proceeds with the retention of the phosphorinane cycle and gives the cyclic phosphonate **2** with a high

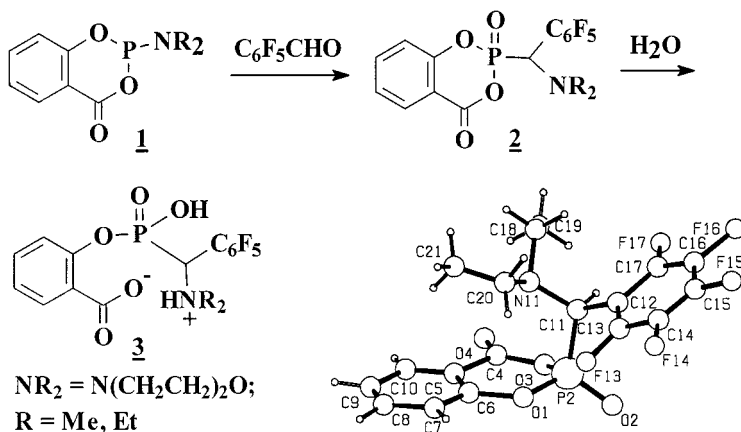


FIGURE 1

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Address correspondence to Vladimir F. Mironov, A. E. Arbuzov Institute of Organic and Physical Chemistry, Russian Academy of Sciences, Arbuzov Str., 8, Kazan, 420088 Russia. E-mail: mironov@iopc.ken.ru

stereoselectivity degree. The unusual O,N-exchange process takes place in the reaction. The structure of the main diastereoisomer **2** (R = Et) was determined by the single crystal x-ray diffraction (see Figure 1). The compound **2** is easily hydrolyzed under soft conditions and the open chain structure **3** is obtained. More deep hydrolysis of the compound **2** (R = Me) leads to formation of 1-hydroxypentafluorobenzylphosphonic acid **4**. The structure of the synthesized compounds was confirmed by  $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{13}\text{C}\{-^1\text{H}\}$ ,  $^{31}\text{P}$  NMR, and IR spectroscopy.