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### Reactions of 2-R-4-Oxo-5,6-benzo-1,3,2-dioxaphosphorinanes with Perfluorodiacetyl

Gulnara A. Ivkova<sup>a</sup>; Vladimir F. Mironov<sup>b</sup>; Irina V. Konovalova<sup>a</sup>; El Vira R. Zagidullina<sup>a</sup>; Arkady N. Pudovik<sup>a</sup>; Mikhail A. Kurykin<sup>c</sup>

<sup>a</sup> Kazan State University, Russia <sup>b</sup> A. E. Arbuzov Institute of Organic and Physical Chemistry, Russian Academy of Sciences, Russia <sup>c</sup> A. N. Nesmeyanov Institute of Organo-Element Compounds, Russia

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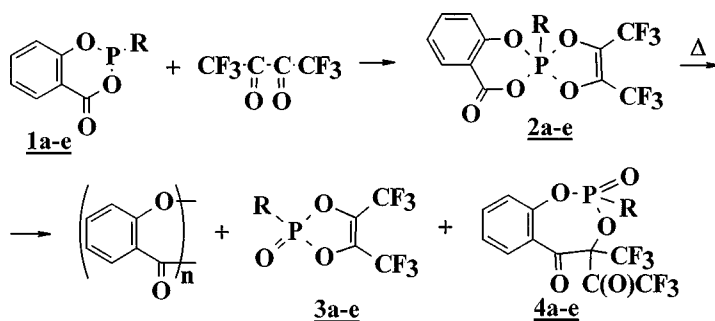
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## REACTIONS OF 2-R-4-OXO-5,6-BENZO-1,3,2-DIOXAPHOSPHORINANES WITH PERFLUORODIACETYL

*Gulnara A. Ivkova,<sup>a</sup> Vladimir F. Mironov,<sup>b</sup>  
 Irina V. Konovalova,<sup>a</sup> El Vira R. Zagidullina,<sup>a</sup>  
 Arkady N. Pudovik,<sup>a</sup> and Mikhail A. Kurykin<sup>c</sup>  
 Kazan State University, Russia;<sup>a</sup> A. E. Arbuzov Institute  
 of Organic and Physical Chemistry, Russian Academy  
 of Sciences, Russia;<sup>b</sup> and A. N. Nesmeyanov Institute  
 of Organo-Element Compounds, Russia<sup>c</sup>*

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2-R-4-Oxo-5,6-benzo-1,3,2-dioxaphosphorinanes **1a–e** react with perfluorodiacetyl under mild conditions and form pentacoordinated phosphorus derivatives— $\lambda^5$ -1,3,2-dioxaphospholenes **2a–e** with high yields. Spirophosphoranes are relatively stable and their structure is confirmed by  $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{19}\text{F}$ ,  $^{31}\text{P}$  NMR, IR spectroscopy, and the single crystal



R = OMe (a), OEt (b),  $\text{OCH}_2\text{CF}_3$  (c),  $\text{OCH}_2\text{CF}_2\text{CHF}_2$  (d), Ph (e)

SCHEME 1

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Address correspondence to V. F. Mironov, Kazan State University, Kremlevskaya Str., 18, Kazan, 420008 Russia. E-mail: mironov@iopec.kn.ru

x-ray diffraction. The heating of the phosphoranes leads to formation phospholenes **3a–e**—the products of the salicylic fragment elimination and 1,3,2-dioxaphosphepines **4a–e** in various ratio depending on the R nature.