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## Phosphorus, Sulfur, and Silicon and the Related Elements

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## The Reaction of 2-R-4-Oxo-5,6-benzo-1,3,2-dioxaphosphorinanes with Ydene Derivatives of β-Dicarbonyl Compounds

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## THE REACTION OF 2-R-4-OXO-5,6-BENZO-1,3,2-DIOXAPHOSPHORINANES WITH YDENE DERIVATIVES OF $\beta$ -DICARBONYL COMPOUNDS

Sergey V. Romanov, Vladimir F. Mironov, Lirina V. Konovalova, Liliya M. Burnaeva, Aidar T. Gubaidullin, Aleksey B. Dobrynin, Ligor A. Litvinov, and Arkady N. Pudovik Kazan State University, Russia and A. E. Arbuzov Institute of Organic and Physical Chemistry, Russian Academy of Sciences, Russia

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2-R-4-Oxo-5,6-benzo-1,3,2-dioxaphosphorinanes  $\underline{\mathbf{1}}$  react with ydene derivatives of  $\beta$ -dicarbonyl compounds  $\underline{\mathbf{2}}$  and gives the new 6,7-benzo-1,2-oxaphosphepines  $\underline{\mathbf{3}}$  with high stereoselectivity. The interaction includes the formation of the new C–C- and P–C-bonds under soft conditions. The structure of the compounds  $\underline{\mathbf{3}}$  was confirmed by  $^1\mathrm{H}$ ,  $^{13}\mathrm{C}$ ,  $^{13}\mathrm{C}$ - $^{14}\mathrm{H}$ ,  $^{31}\mathrm{P}$  NMR. The configuration of the main isolated diastereoisomer of the compound  $\underline{\mathbf{3}}$  (R=Ph, R<sup>1</sup>=R<sup>2</sup>=COOEt) was confirmed by the single crystal X-ray diffraction (see Figure 1; some hydrogen atoms are excluded for the clarity).

R = Ph,  $NEt_2$ ;  $R^1 = Ph$ ,  $CCl_3$ , Me;  $R^2 = COOEt$ , COMe

FIGURE 1 (Continued on next page)

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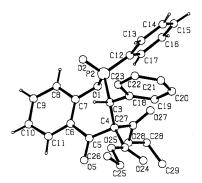


FIGURE 1 (Continued).