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Bis(Pentamethylcyclopentadienyl)-Substituted Phosphanes and Phosphoranes

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BIS(PENTAMETHYLCYCLOPENTADIENYL)-SUBSTITUTED PHOSPHANES AND PHOSPHORANES

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The synthesis and crystal structures of a series of phosphanes and **Abstract** phosphoranes will be reported

Only a few representatives of phosphanes of the type $Cp^*_{2}PR(Cp^*=C_5Me_5)$ have been described in the literature [1]. We have synthesized a series of novel phosphanes 2 and phosphoranes 4 by the following routes:

$$R^{-}$$
 $Cp*_{2}PCl$ \longrightarrow $Cp*_{2}PR$ $(R=H, N_{3}, Me, OMe, SMe)$

1 2

 (X)
 $Cp*_{2}PR'$ \longrightarrow $Cp*_{2}P(X)R'$ $(R=Cl, H; X=O, S, Se)$

3 4

The crystal structure analyses of several compounds prepared $2(R=H, OMe, SMe^{\lfloor 2 \rfloor})$, 4 (R'=Cl, X=S; R'=H, X=O) have been carried out and the bond length and angles are discussed.

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