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

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## Sterically and Electronically Stabilized Organophosphorus Compounds

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## STERICALLY AND ELECTRONICALLY STABILIZED ORGANO- PHOSPHORUS COMPOUNDS

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**Abstract** The dialkylamino groups and the methoxy group were employed in a protective group and attempts were made to prepare dithioxo- and selenoxo-phosphoranes.

We have been successful in stabilizing unusual phosphorus compounds in low-coordination states by using the 2,4,6-tri-*t*-butylphenyl group.<sup>1,2</sup> Some bulky groups containing dimethylamino group were utilized in stabilizing  $RP(=X)_2$  and  $RP(=X)$ , where  $X=S$  or  $Se$ . The lone pair electrons in the amino group seem to stabilize the phosphorus with intramolecular coordination, which was confirmed by X-ray crystallography,  $^{31}P$  NMR, and  $^{77}Se$  NMR.<sup>3</sup> On the other hand, the methoxy group in place of amino does not lead to stabilization but rather to destabilization, activating such phosphoranes or intermediates to serve as sulfurization or selenation reagent of carbonyl compounds.<sup>4</sup>

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