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Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713618290>

Unexpected P-C Bond Lability of Di-t-Butyl-Bis(Dimethyl Amino)Methylphosphine

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To cite this Article Shevchenko, I. V. , Furmanova, M. V. , Kukhar, V. P. and Kolodiaznyy, O. I.(1990) 'Unexpected P-C Bond Lability of Di-t-Butyl-Bis(Dimethyl Amino)Methylphosphine', *Phosphorus, Sulfur, and Silicon and the Related Elements*, 51: 1, 196

To link to this Article: DOI: 10.1080/10426509008040730

URL: <http://dx.doi.org/10.1080/10426509008040730>

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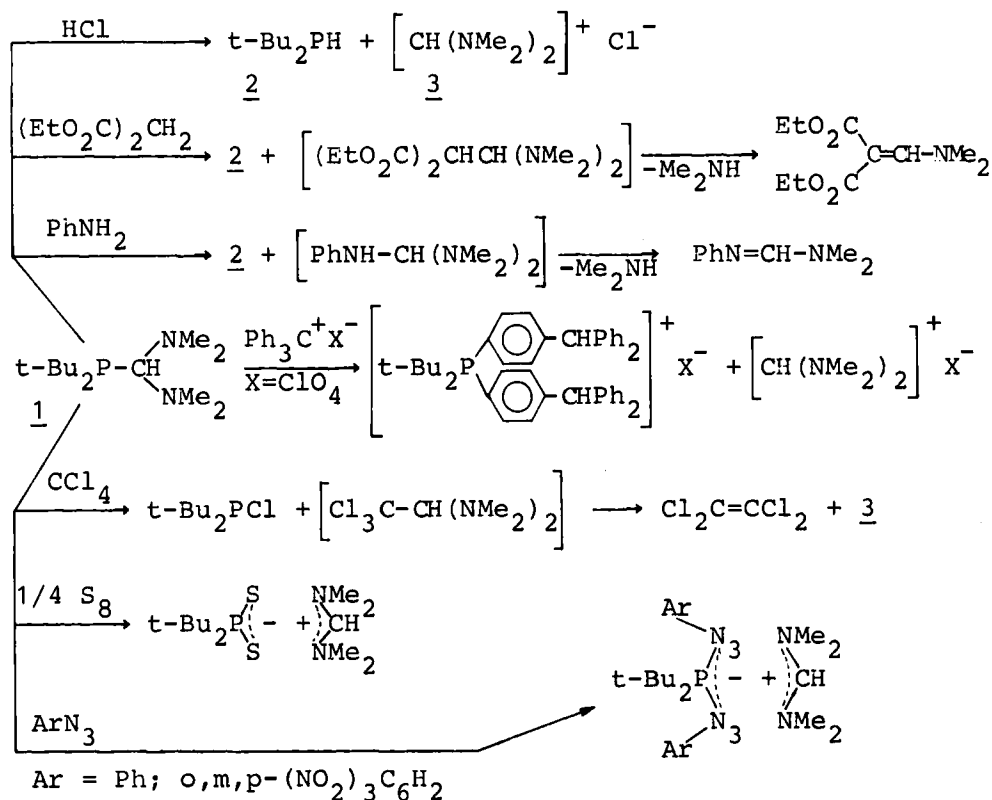
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UNEXPECTED P-C BOND LABILITY OF DI-*t*-BUTYL-BIS(DI-METHYLAMINO)METHYLPHOSPHINE

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We found the title compound 1 to contain a very labile P-C bond, which is readily cleaved under the action of proton-donating reagents, even as weak as aniline, and other electrophilic reagents as well as under the conditions of sulphuration or imination. This can probably be explained by the presence of bulky substitutes at phosphorus and the ability of bis(dimethylamino)methyl group to form the thermodynamically stable formamidinium cation (1).



(1) O.I.Kolodiazhnyi, J.Obshch. Chim. 49, 104 (1979).