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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>

Synthesis and X-Ray Crystal Structure of an Annelated Spirophosphorane

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To cite this Article Müller, Ernst Peter , Peringer, Paul , Aeschmann, Roland , Maetzke, Thomas and Petter, Walter(1987) 'Synthesis and X-Ray Crystal Structure of an Annelated Spirophosphorane', Phosphorus, Sulfur, and Silicon and the Related Elements, 30: 3, 713

To link to this Article: DOI: 10.1080/03086648708079207

URL: <http://dx.doi.org/10.1080/03086648708079207>

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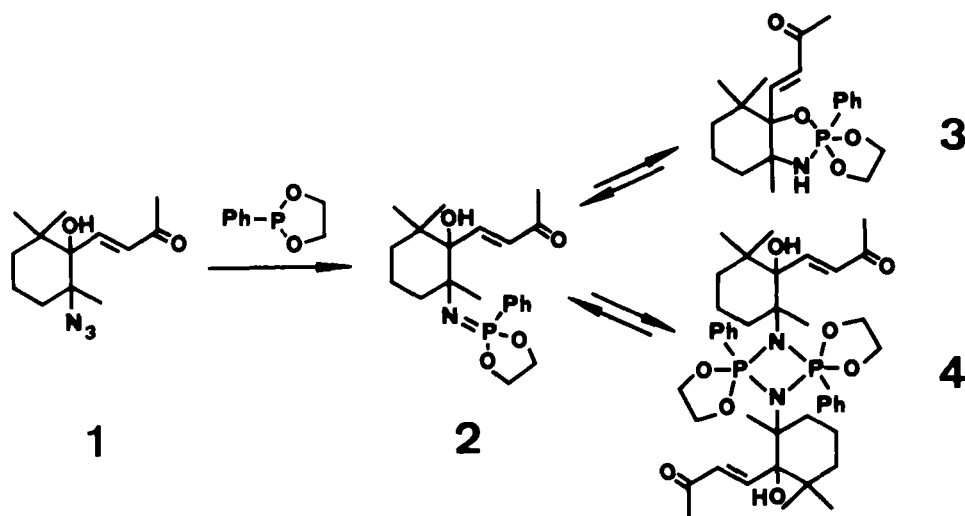
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Reaction of the 2-azidoalcohol 1 with 2-phenyl-1,3,2-dioxaphospholane leads to a 4:1 mixture of the pentacoordinate phosphorane 3 and the diazadiphosphetidine 4. In solution, these compounds are in equilibrium, presumably involving the not detectable iminophosphorane 2. A single X-ray analysis carried out on 3 proves the structure of this type of compound which has been postulated earlier as intermediate in the synthesis of aziridines from azidoalcohols^{1,2}.



¹ A. Willeit, E.P. Müller, P. Peringer, *Helv. Chim. Acta* 1983, 66, 2467.

² P. Pöchlauer, E.P. Müller, P. Peringer, *Helv. Chim. Acta* 1984, 67, 1238.