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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>

Reactions of Phosphaalkenes with Hydrides of Elements of III and IV Groups

A. S. Ionkin^a; S. N. Ignatyeva^a; O. A. Erastov^a; B. A. Arbuzov^a

^a Arbuzov Institute of Organic and Physical Chemistry, Kazan Branch, Academy of Sciences of the USSR, Kazan, USSR

To cite this Article Ionkin, A. S. , Ignatyeva, S. N. , Erastov, O. A. and Arbuzov, B. A.(1990) 'Reactions of Phosphaalkenes with Hydrides of Elements of III and IV Groups', *Phosphorus, Sulfur, and Silicon and the Related Elements*, 51: 1, 326

To link to this Article: DOI: 10.1080/10426509008040857

URL: <http://dx.doi.org/10.1080/10426509008040857>

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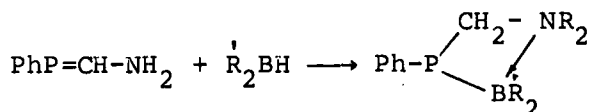
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REACTIONS OF PHOSPHAALKENES WITH HYDRIDES OF ELEMENTS OF III AND IV GROUPS

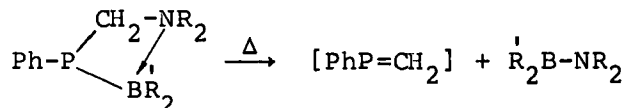
A.S. IONKIN, S.N. IGNATYEVA, O.A. ERASTOV, and B.A. ARBUZOV

Arbuzov Institute of Organic and Physical Chemistry,
 Kazan Branch, Academy of Sciences of the USSR,
 Arbuzov Str. 8, 420083 Kazan, USSR

Reactions of phosphaaalkenes with the hydrides of B, Al, Si, Sn were studied. The reaction of hydroboration of phosphaaalkenes was carried out:

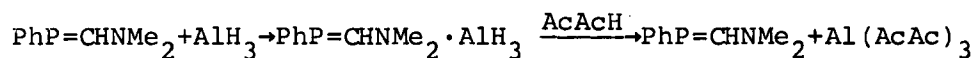


The obtained compounds undergo β -elimination upon heating:

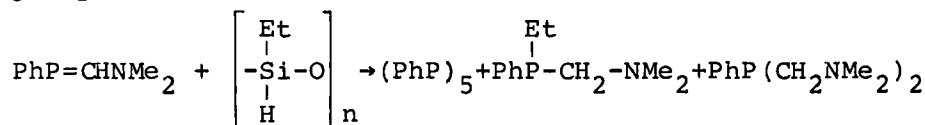


The unstable methylenphenylphosphine can be trapped by boran, $[\text{PhP}=\text{CH}_2] + \text{R}_2\text{BH} \longrightarrow \text{PhPH}-\text{CH}_2-\text{BR}_2$.

The reaction product is stable in the coordinated dimolecular form. Dimethylaminomethylenphenylphosphine reacts with aluminium hydride with the formation of a complex compound:



Polyethylhydridosiloxane forms products of alkylation with phosphaaalkene



Tributylstannane reacts only under rigid conditions, at about 190°:

