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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>

### A Simple Synthesis of New Phosphaalkenes

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**To cite this Article** Grützmacher, Hansjörg , Braunwarth, Horst , Pritzkow, Hans , Zsolnai, Laslo and Huttner, Gottfried(1990) 'A Simple Synthesis of New Phosphaalkenes', *Phosphorus, Sulfur, and Silicon and the Related Elements*, 51: 1, 320

**To link to this Article:** DOI: 10.1080/10426509008040851

**URL:** <http://dx.doi.org/10.1080/10426509008040851>

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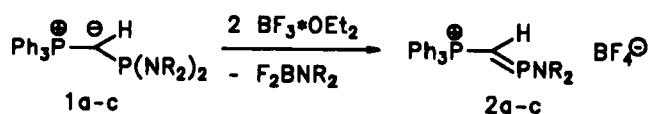
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## A SIMPLE SYNTHESIS OF NEW PHOSPHAALKENES

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Upon treatment of phosphanylsubstituted phosphorus ylides like **1a-c** with two equivalents  $\text{BF}_3 \cdot \text{OEt}_2$  the compounds **2a-d** are obtained almost quantitatively. In them a phosphonium- and a phosphenium ion compete for the electron density at the bridging carbon atom. A X-ray analysis of **2a** and the reactivity of transient **3a,b** so far studied reveal the olefinic character corresponding to phosphonium substituted phosphaaalkenes.



R: Et,  $(\text{CH}_2)_5$ ,  $^i\text{Pr}$

