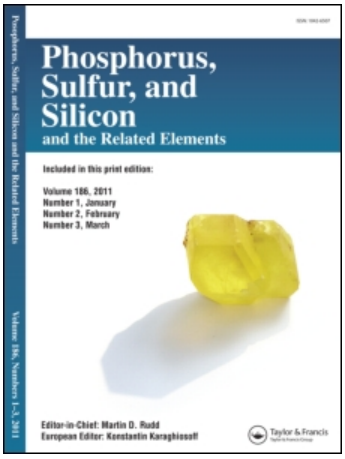

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First Example for Competitive Formation of 1*H*-Phosphirene and η^1-1-Phosphaallene Complexes

Hendrik Wilkens[a]; Rainer Streubel[a]
[a] Institut für Anorganische und Analytische Chemie der Technischen Universität Braunschweig, Braunschweig, Germany

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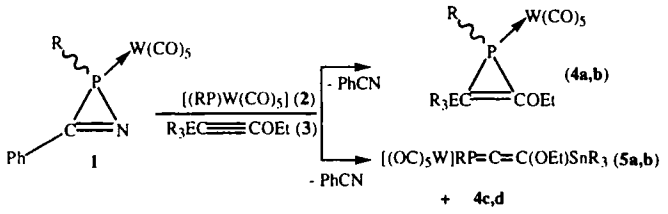
First Example for Competitive Formation of 1*H*-Phosphirene and η^1-1-Phosphaallene Complexes

HENDRIK WILKENS and RAINER STREUBEL*

Institut für Anorganische und Analytische Chemie der Technischen Universität Braunschweig, Postfach 3329, D-38023, Braunschweig, Germany.

2*H*-azaphosphirene complex **1**[1] serves as an efficient precursor for terminal phosphanediyl complex **2** (R = $CH(SiMe_3)_2$), which was trapped with acetylene derivatives **3a-e** (R_3E = Me_3Si (**3a**), Ph_3Si (**3b**), Me_3Sn (**3c**), Ph_3Sn (**3d**), $^tBu_3Sn$ (**3e**)) to yield 2,3-bifunctionalized 1*H*-phosphirene **4** and/or η^1-1-phosphaallene complexes **5**.[2,3] Complexes **4a-d** were formed in the case of **3a-d**, whereas η^1-1-phosphaallene complexes **5a,b** were generated only, if stannyl-substituted acteylenes **3c,d** were used. In these cases, **4c,d** were obtained as byproducts. If **3e** was employed, having *tert*-butyl



groups at tin, then no η^1-1-phosphaallene complexes were formed, but, instead, diastereoisomeric complexes **6a,b** obtained, exclusively. These complexes are related to 1*H*-phosphirenes **4a-d**, but have zwitterionic ring systems, owing, most probably, to a strong π-donor electron interaction of the ethoxy group.[3] NMR spectroscopic data of **4a-d**, **5a,b** and **6a,b** and single crystal X-ray structures of **4a**, **4d** and **6a** will be presented.

References

[1] R. Streubel, A. Ostrowski, S. Priemer, u. Rohde, F. Ruthe, P. G. Jones, *Eur. J. Inorg. Chem.* **1998,** 257. [2] R. Streubel, H. Wilkens, F. Ruthe, P.G. Jones, *J. Chem. Soc. Chem. Commun.*, submitted. [3] R. Streubel, H. Wilkens, unpublished.

* e.-mail: r.streubel@tu-bs.de