



Reactions of $N\equiv W(O^tBu)_3$ and $O=W(O^iPr)_4$ with low-coordinate phosphorus compounds: similarities and differences.

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Streszczenie

The reactions of $N\equiv W(O^tBu)_3$ and $O=W(O^iPr)_4$ with $(Me_3Si)_2NPNSiMe_3$ (I), $(Me_3Si)_2NPN^tBu$ (II), and $(Me_3Si)_2NP(NSiMe_3)_2$ (III) in benzene have been studied. Low-coordinate phosphorus derivatives react with above mentioned tungsten compounds via 1,2-addition of an W-OR bond across the P=N bond, resulting in four-membered metallacycles. $(Me_3Si)_2N-P(NSiMe_3)_2$ reacts with $O=W(O^iPr)_4$ in a different manner via [2 + 2] cycloaddition. The structure of all new compounds was elucidated by 1H , ^{13}C , and ^{31}P NMR spectroscopy. Compound $[(Me_3Si)_2N-P(NSiMe_3)_2(O)]\{W(O^iPr)_4\}$ (6) was also characterized by single crystal X-ray analysis.

Słowa kluczowe

crystal structure, low-coordinate phosphorus, metallacycle,
Tungsten

Adres publiczny

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