

W(II)-catalyzed hydroarylation of bicyclo[2.2.1]-hept-2-ene by simple arenes.

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Streszczenie

The tungsten(II) carbonyl compound $(\text{CO})_4\text{W}(\mu\text{-Cl})_3\text{W}(\text{SnCl}_3)(\text{CO})_3$ has been found to be a very effective catalyst for the hydroarylation of bicyclo[2.2.1]hept-2-ene (norbornene) conducted in arene solution at room temperature. Norbornene adducts with benzene, toluene, *para*-xylene, and mesitylene have been isolated and their structures have been unambiguously established by means of ^1H and ^{13}C NMR spectroscopy. On the basis of ^1H NMR monitoring of several catalytic reactions, a possible mechanism involving coordination of norbornene to the W(II) atom and its activation has been proposed.

Słowa kluczowe

Hydroarylation, Tungsten(II) catalyst, Norbornene, C–C bond formation, C–H bond activation

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