Generation and Structural Characterization of an [(Imidazol-2-ylidene)$HfCl_5$]-Anion/Imidazolium Cation Salt

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The reaction of 1,3-diisopropylimidazolium chloride (**3**) with benzylpotassium in d_5-bromobenzene generates the stable carbene 1,3-diisopropylimidazol-2-ylidene that is trapped by hafnium tetrachloride. A chloride anion is subsequently added to the Hf atom of the resulting intermediate to yield the salt [(1,3-diisopropylimidazol-2-ylidene)$HfCl_5^-$][1,3-diisopropylimidazolium$^+$] **6** that was characterized by an X-ray crystal structure analysis.

Key words: Stable Carbenes, Imidazol-2-ylidene, Hafnium Complex