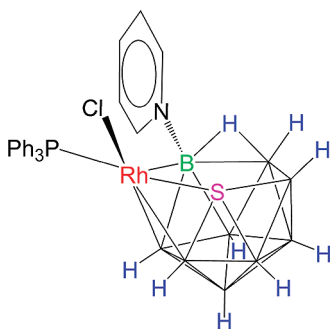


Addition to Brønsted Acid/Base Driven Chemistry with Rhodathiaboranes: A Labile {SB₉H₉}-Thiodecaborane Fragment System

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The 11-vertex *nido*-structure of [8,8-(PPh₃)(Cl)-9-(NC₃H₅)-8,7-RhSB₉H₉] (see compound 4 below) does not correspond with the 11-vertex *closo*-octadecahedral structure that the simple application of Wade/Mingos rules predicts. A discrepancy between the electron-counting rules and the structure is common among polyhedral molecules that incorporate C_{2v} fragments such as RhL₂ and PtL₂. This problem has been long recognized and rationalized.¹ It has also been dealt with in the literature several times.² Alternatively, it has been suggested by a reviewer that two weak CH...Rh agostic interactions at 2.75 and 3.27 Å with two *o*-C–H bonds of the PPh₃ ligand could stabilize the 11-vertex *nido* structure of 4. A similar rationalization, based on double *o*-C–H...Rh agostic interactions, can be found in the article “Rhodathiaboranes with ‘anomalous’ electron counts: synthesis, structure and reactivity” by Welch and co-workers.³



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