

interaction between an isopropyl group and the quinuclidine ligand. It is probably for this reason that the alkylidene is forced to be in the *anti* orientation. We speculate that the *syn* form has the same basic structure with an imido phenyl ring that is twisted out of the equatorial plane, although we cannot yet exclude the possibility that the core is different (e.g., a square pyramid). The *syn* form apparently crystallizes out selectively, since an NMR sample prepared from this crystalline sample at 25° again shows an initially low *syn/anti* ratio (1:5, assuming that the other isomer is a *syn* form) that favors the *syn* form (1.5:1) after about two hours.

Very recently we have found that although the reaction shown in equation 5 is not successful when R = t-Bu, it is successful if norbornene is first added to  $W(CH-t-Bu)(NAr)(O-t-Bu)_2$  to give a more reactive living polynorbornene complex. We hope to isolate a base adduct of that product soon. Further details can be found in the proposal proper.