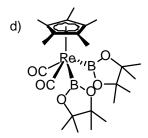
Answer Key for the Problem Set 2

0; CN=4; tetrahedral

+3; CN=4; tetrahedral

+2; CN=4; tetrahedral



+3; CN=5; square pyramidal

+2; CN=4; square planar

2.

3.

4. a)

Grignard reagent can be prepared directly

b) O CI

Grignard reagent can be prepared directly

c) O Br

Grignard reagent can be prepared directly

NH₂ must be protected

OH must be protected with Et₃SiCl

Grignard reagent can be prepared directly at low temperatures, but for more stressed conditions, the following starting compound can be used;

The ketone group must be protected as the ketal form (a), or must be replaced by the methylene group (b).