Crystal Structure and Synthesis of Cis - Bis -
{(Endo - 3 - diphenylphosphino - (1R) (+) Camphor)}
Dichloro Iridium(I)

Habibi, M. H. and Alavi, M.
Chemistry Department, University of Esfahan, Iran

Key Words: Crystal Structure, Synthesis of Iridium Complexes

Abstract: In this research endo-3-diphenylphosphino -(1R)-(+ camphor as a ligand was synthesised. 1.3 mmol of IrCl2(NCPh)2 was added to the solution of 2.7 mmol ligand in 15 ml dichloromethane, and after one hour it was evaporated at reduced pressure. By addition of methanol microcrystals of yellow complex of Iridium(I) with 78% yield was obtained. Crystal structure of the above complex are orthorhombic, space group P2_12_12_1 with a = 380.3(2), b = 1785.1(3), c = 19.228(4) Å and z = 4, R = 0.0453 for 4438 observed reflections. The structure shows that PPh2 groups are endo and phosphines in cis position.