A range of new compounds such $N^1,N^4$-bis(diphenylmethene)benzene-1,4-diamine zirconium(IV) chloride $\{([Ar]_2NC_6H_5N(Ar)_2)\text{ZrCl}_4\}$ (Ar = C$_6$H$_5$) complex counting the chelating amine and chloride in position trans have been prepared, and structurally characterized in several cases (Scheme 1).

Well-defined $N^1,N^4$-bis(diphenylmethylene)benzene-1,4-diamine zirconium(IV) chloride $\{([Ar]_2NC_6H_5N(Ar)_2)\text{ZrCl}_4\}$ (Ar = C$_6$H$_5$) was obtained by stoichiometric addition of $\{([Ar]_2NC_6H_5N(Ar)_2)\}$ (Ar = C$_6$H$_5$) and $\{\text{ZrCl}_4\}$ in ethanol at reflex temperature. Kinetic studies were conducted during the reaction lifetime. IR, Electronic properties and conductivity studies have been obtained for this compound.

Scheme 1

$N^1,N^4$-bis(diphenylmethylene)benzene-1,4-diamine zirconium chloride