SUMMARY

In this dissertation,

we borrow the notion "pseudoblock" from [16] to introduce it to finite dimensional algebras. We shall investigate the pseudoblock structure of several finite dimensional algebras. The dissertation is organized as follows:

Chapter 0 is a background chapter collects all basic notions and results which are needed for this dissertation.

Chapter 1, we introduce the concept of pseudoblocks of finite dimensional algebras A, and we explain the concept of the Brauer linkage principle of finite dimensional algebras, then we study compatibility between the pseudoblocks of indecomposable direct summand of the module Y and the Brauer linkage principle of the simple $End_A(Y)$-modules by Brauer-Fitting correspondence.

Chapter 2, we discuss the connection between the Brauer linkage principle $\underset{A}{\approx}$ and the pseudoblock linkage principle $\underset{PSA}{\approx}$.

Chapter 3, We study compatibility between the tensor product and the pseudoblock linkage principle.

Chapter 4, we discuss the pseudo-block distribution of the indecomposable modules for some various finite dimensional algebras.

Chapter 5, we determine the pseudoblock structure of the group algebra of special linear group $\Lambda = FG; G = SL(2, p)$ in characteristic prime number p.