

## **CHAPTER V**

### **CONCLUSIONS**

In the present work, it is clarified that the chemisorption and physisorption of silane onto silica are controlled by the silica content and silane concentration. Viscosity reduction can be achieved when the silane is coupling onto silica and reached the equilibrium of adsorption. It has been found that silane adsorbed onto silica is predominantly physisorbed when the system contains high concentration of silica. It is confirmed that preferential chemisorption can take place in the system that contains high concentration of silane. Study on the rheological property of polymer system of PMMA having silane treated silica revealed that the interpenetrating network is supported by the high chemisorption. It can be concluded that in order to gain beautiful, translucent artificial marble, the translucency can be achieved by the predominantly physisorbed silane and high physical properties can be achieved by the predominantly chemisorbed silane.