

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

In this research, the catalytic activities of the composite oxides of silver catalysts for ambient temperature carbon monoxide oxidation were studied. It was found that the catalytic activities depend strongly on the pretreatment conditions which change the physical and chemical structure of the precipitated catalysts profoundly.

The catalysts containing a Co/Mn ratio of 4 calcined in air at 200 °C were the most active. The activity and stability increased with silver loading.

The catalyst activity was found to decay slowly and mostly irreversibly due to a number of possible mechanisms, carbonate formation on the catalyst surface and sintering of metal crystallites.

5.2 Recommendation

Further work needs to be done to clarify the deactivation mechanism and to develop ways of preventing deactivation.