

CHAPTER VI

FUTURE WORKS

The future works are recommended as follows:

1. It is possible to improve microwave synthesized powders to obtain the required physical and mechanical properties sintered products. After ignition occurred in mixed powder, it should be sustained under microwave energy a longer period of time to get higher densified of synthesized powders.
2. The milling process for the as-combusted powders should be improved to acquire a smaller starting particle size of Al_2O_3 -TiC composite powders for the benefit of further sintering process.
3. The further in-depth investigation in Al-Ti-O metastable phase is necessary as it may influence to the sintering behavior.
4. The optimum condition to properly densify combusted Al_2O_3 -TiC powders should be further investigate in terms of type and amount of additive, and also sintering profile.
5. In microwave sintering, the obstacle to reach a higher sintering temperature is focused on the relationship among sample loading, competition in microwave energy between sample and susceptor, and also the amount and configuration of susceptor used. This understanding will assist densification efforts.