



CHAPTER V

CONCLUSIONS

5.1 Conclusion

The conclusions of the present research are the following:

1. Calcinations at high temperature eliminate the $\text{Ca}(\text{OH})_2$ on the CaO catalyst. The calcined catalyst gave high activity and yield of methyl esters content.
2. The order of activity of the solid catalysts for palm olein oil and coconut oil transesterification is $\text{NH}_4(\text{CO}_3)_2/\text{CaO} > \text{K}_2\text{CO}_3/\text{CaO} > \text{calcined CaO} > \text{fresh CaO}$.
3. Life cycle of $(\text{NH}_4)_2\text{CO}_3/\text{CaO}$ catalysts were deactivated after used for seven times because catalytic activity of catalyst are decreased due to dissolved ammonium compound in methanol were corroded active site after wash deactivated catalyst with methanol.