

CHAPTER V

CONCLUSION AND SUGGESTION

Conclusion

In this thesis, the effect of isoamyl alcohol on emission was studied, it was concluded that:

- 1. Increasing isoamyl alcohol content in diesel fuel does not effect the cetane index but has a significant effect on decreasing the flash point and distillation point.
- 2. PAHs that were found in this study were naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene and pyrene.
- 3. Complete combustion of diesel fuel can be produced through the use of an oxygenated compound, isoamyl alcohol in this study, and it appears to have a role in reducing PAHs
- 4. The amount of PAHs reduction is directly related to the concentration of isoamyl alcohol.
- 5. The concentration of PAH in diesel exhaust emission at 1600 rpm. was slightly lower than at 800 or 2400 rpm.

Suggestion

1. For the future work, oxygenated compounds are selected as fuel additives on a basic of their fuel blending properties, toxicity, flashpoint, and potential costs. Oxygenated compound, which lacks of chain-branching to increase the cetane number in the base fuel.

2. The exhaust emission from the car which tested at steady state conditions and on the road test should be compared.

