

## CHAPTER 4

### RECOMMENDATIONS FOR FUTURE RESEARCH

Since recycled sludge showed reasonably high treatment efficiency as the fresh reagent, one of suggestions for future research is how to recycle sludge in the real treatment plant. This work also includes comparison between cost of using fresh iron compound and iron from recycled sludge. Because, to use recycled sludge, some more steps in treatments are needed including sludge separation, iron transformation, and pH control. In this case, the separation of iron sludge from treated wastewater could be reasonably performed through sludge thickening and dewatering.

Next, diversity of contaminants in the target wastewater to be treated is recommended to be study. In this study, alcohol, i.e. methanol and ethanol, were found to be an inhibitor of Fenton's reaction. There might be some other interference in real wastewater. Therefore, to use Fenton's reagent efficiently, it is very important to characterize wastewater before apply this technique to treat it.