

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

#### **V.I. Conclusion**

From the research results, the effect of modulators such as formic acid and acetic acid has an inhibitory effect on the synthesis process so that the particle size can be reduced. The modulator ratio used also has a significant effect because the addition of the modulator ratio will have an impact such as an enlarged particle size and a slower crystal formation process.

In the application of drug loading and drug release, the modulator did not have a significant effect on HKUST-1 as a drug carrier. In drug loading, the modulator can increase the  $Q_{\max}$  of HKUST so that the absorbed doripenem is higher, especially in HKUST-1@FA. In drug release, the modulator does not act as a capping agent so that the concentration of doripenem that dissolves in the PBS solution is not too far away.

#### **V.II. Recommendation**

If a similar study is conducted, it is recommended to increase the time of drug is released, add of a pH and temperature variable at the drug release stage so that the optimum point can be seen.

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