CHAPTER V
CONCLUSION AND RECOMMENDATION

V.1. Conclusion

Variables of concentration and temperature of NCC synthesis process through acid hydrolysis have been studied. The optimum variables condition in acid hydrolysis are 60%wt of sulfuric acid and 30°C of temperature.

NCC from Cerbera manghas characterization have been done by FTIR and SEM as shown in the literature. NCC-chitosan composite was suitable for amoxicillin drug delivery system. In the adsorption process, three types of composite ratio reached equilibrium quantity of drug in three hour. The increase of chitosan amount in the composite decreased its adsorption capability. Whilst the increase of chitosan delayed desorption rate of the drug until 9.5 hours.

V.2. Recommendation

NCC-Chitosan composites have been shown suitable for amoxicillin drug carrier. Although, the amount of drug adsorbed and desorbed at each equilibrium state are still low. Further research and characterization of NCC-Chitosan composite are recommended to increase the adsorption capabilities and to characterize the muco-adhesivity of the composite in human intestines.
REFERENCES


