

CHAPTER V

CONCLUSION

1. The HyperSEP C-18 cartridge was used three times for limonin extraction which gave around 80% limonin recovery.
2. The sensitivity of the method for limonin determination was 2.4 ppm. The recovery and precision of the determination was $83.69 \pm 2.20\%$.
3. The optimum condition for fluidized column debittering process was 50 cm x 3 cm i.d. fluidized column, 11 g β -CD polymer (1.25g%, w/v), 100 ml/min flow rate at room temperature, which gave 50-80 % limonin reduction. The adsorption capacity for limonin was 0.47 mg limonin/g β -CD polymer.
4. The efficiency of debittering process by regenerated β -CD polymer was decreased 60 %.
5. The XAD-16 fluidized column under similar the condition gave ~ 90% limonin reduction. The adsorption capacity was 1.58 mg limonin/g XAD-16 resin.
6. The adsorption capacity of the prepared β -CD polymer fluidized column was 0.028 mg limonin/g prepared β -CD polymer.
7. The debittering process did not significantly affect the color, total soluble solids and vitamin C content of the Thai tangerine juice.
8. The productivity was 6 L/column/hour. Estimation cost for this condition was around 4,500 bahts/column.