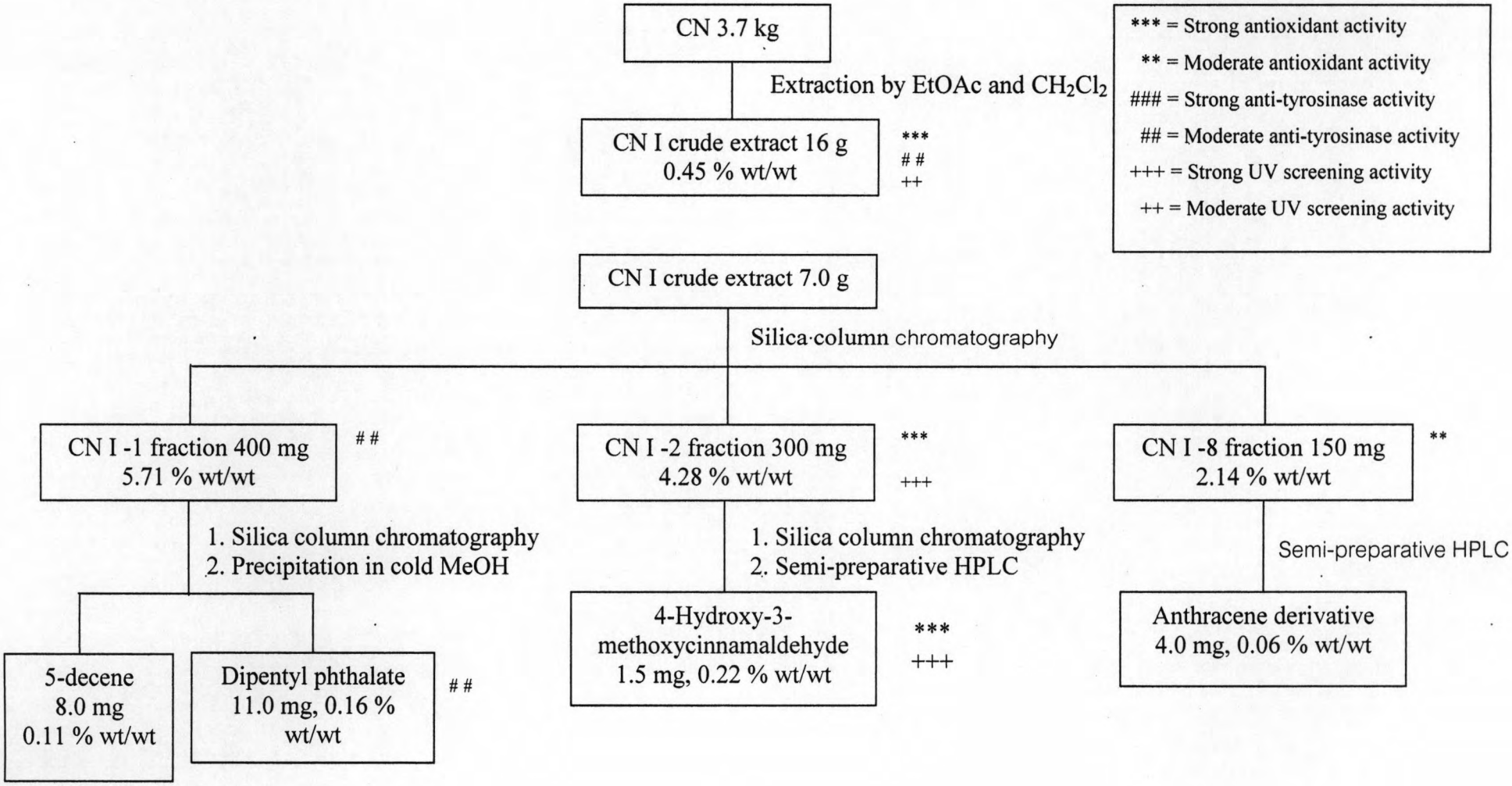
CHAPTER IV

CONCLUSION

The screening for antioxidant, anti-tyrosinase and UV screening activities in crude extracts from rice husk of Chai-nat 1 (CN), Look Daeng Pattani (LD), Leb Nok Pattani (LN), Go ko 1 (GK) and Jasmine (JM), indicated that the dichloromethane and the ethlyacetate crude extract CN possessed potent antioxidant activity, moderated anti-tyrosinase activity and some UV (290-400 nm) absorption property. The isolation of CN crude extract gave two active compounds, dipentyl phthalate and 4-hydroxy-3-methoxycinnamaldehyde. Dipentyl phthalate exhibit anti-tyrosinase activity at about 25 folds less than kojic acid while 4-hydroxy-3-methoxycinnamaldehyde showed similar DPPH radical scavenging activity as that of the reference BHT (IC_{50} = 69.49 and 42.3 μg/ml, respectively). In addition, 4-Hydroxy-3-methoxycinnamaldehyde showed the maximum absorption peak in UVA region (λ_{max} = 399 nm), with molar absorptivity (ε) of 32000 $cm^{-1}M^{-1}$. Furthermore, alkene and anthracene were also found in CN crude extract. The overall extraction and isolation procedure of Chai-nat 1 husk was shown in Scheme 4.1.



Scheme 4.1 The extraction and isolation of Chai–nat 1 (CN) husk