

CHAPTER V

CONCLUSION

In the first investigation of *Nepenthes thorelii* Lec., five compounds were isolated from the roots of this plant. The compounds were known 1,4-naphthoquinone derivatives : plumbagin, droserone, isoshinanolone, 2-methyl-naphthazarin and a long chain cinnamic acid derivative, namely octadecyl caffeate or 3(3,4-dihydroxy)-2-propenoic acid, octadecyl ester.

Chemical transformations of plumbagin with various chemical methods gave eight derivatives, including 5-acetyloxy-2-methyl-1,4-naphthoquinone, 5-methoxy-2-methyl-1,4-naphthoquinone, 2,3-epoxy-5-methoxy-2-methyl-1,4-naphthoquinone, 3-hydroxy-5-methoxy-2-methyl-1,4-naphthoquinone, 3-acetyloxy-5-methoxy-2-methyl-1,4-naphthoquinone, 3,5-dimethoxy-2-methyl-1,4-naphthoquinone, 2,2-dimethyl-3-hydroxy-3-methoxycarbonyl-4-methoxy-1*H*-inden-1-one and 3-chloro-5-methoxy-2-methyl-1,4-naphthoquinone. The identifications of all compounds were based on the data from several spectroscopic techniques.

This work expands our understanding of the chemistry of Nepenthaceae. It also offers useful information on the spectroscopic properties of 1,4-naphthoquinones.